

### Question 1

Tornadoes most often move TOWARDS what direction?

- A) northeast
- B) northwest
- C) west
- D) southeast

Answer: <https://biology-forums.com/index.php?topic=374202>

### Question 2

Chesapeake Bay and Delaware Bay are \_\_\_\_\_.

- A) excellent examples of large estuaries
- B) former river valleys that were flooded by a rise in sea level
- C) associated with a submergent coast
- D) all of the above

Answer: <https://biology-forums.com/index.php?topic=373898>

### Question 3

Inselbergs are \_\_\_\_\_.

- A) blowouts cut from bedrock in mountainous areas
- B) insulated icebergs floating in a hot spring
- C) bedrock hills in a highly eroded desert landscape
- D) lithified rock formed by cementation of wind-deposited, dune sands

Answer: <https://biology-forums.com/index.php?topic=373202>

### Question 4

The largest known volcano in the solar system is \_\_\_\_\_.

- A) Vulcan on Venus
- B) Mauna Loa, Hawaii, on Earth
- C) Olympus Mons on Mars
- D) Solfatara on Jupiter

Answer: <https://biology-forums.com/index.php?topic=374419>

### Question 5

When an earthquake occurs, energy radiates in all directions from its source. The source is also referred to as the \_\_\_\_\_.

- A) seismic zone
- B) focus
- C) epicenter
- D) inertial point

Answer: <https://biology-forums.com/index.php?topic=373298>

### Question 6

The earth formed approximately \_\_\_\_\_ years ago.

- A) 5,000
- B) 11,000,000
- C) 4,600,000,000
- D) 13,700,000,000
- E) 33,200,000,000,000

Answer: <https://biology-forums.com/index.php?topic=373605>

### Question 7

An important evolutionary step for reptiles was \_\_\_\_\_.

- A) the development of shell-covered eggs
- B) lungs that could hold air
- C) the growth of scales from armor plating
- D) the formation of a true spine

Answer: <https://biology-forums.com/index.php?topic=373659>

### Question 8

Atoms of the same element, zinc for example, have the same number of \_\_\_\_\_.

- A) electrons in the valence bond level
- B) neutrons in the outer nuclear shell
- C) electrons in the nucleus
- D) protons in the nucleus

Answer: <https://biology-forums.com/index.php?topic=372591>

### Question 9

The most luxuriant vegetation found in any climatic realm is the \_\_\_\_\_.

- A) tropical rain forest
- B) taiga
- C) tundra
- D) savannah
- E) mid-latitude forest

Answer: <https://biology-forums.com/index.php?topic=374244>

### Question 10

The Mississippi River today is a classic meandering river. 20,000 years ago the Mississippi River was a major outwash channel for the Laurentide ice sheet, and was characterized by dramatic variations in flow with huge discharge during summer ice melt and a dramatic falloff in discharge during the winter. The river also carried coarser sediment than today, with abundant sand and even gravel in its upper reaches. What does this suggest about the ancient Mississippi?

- A) It probably looked similar to the river today, but was characterized by more dramatic summer floods that occurred every year.
- B) It was probably a lush heavily vegetated valley due to the nutrients brought down by the glacial meltwater, producing a swampy landscape with numerous channels.
- C) It probably resembled modern rivers in Alaska with a broad braided stream valley that dried up during the winter months, producing winter dust storms.
- D) It is impossible to predict what the river might have looked like.

Answer: <https://biology-forums.com/index.php?topic=373078>

### Question 11

Which one of the following structures is built to protect boats from large breaking waves?

- A) seawall
- B) breakwater
- C) groin
- D) jetty

Answer: <https://biology-forums.com/index.php?topic=373892>

### Question 12

During the process of \_\_\_\_\_, plants release the gas \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373680>

### Question 13

Which type of basaltic lava flow has a fairly smooth, unfragmented, ropy surface?

- A) scoria
- B) aa
- C) pegmatitic
- D) pahoehoe

Answer: <https://biology-forums.com/index.php?topic=373381>

### Question 14

A ridge of sand that connects an island to the mainland or to another island is a(n) \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373920>

### Question 15

Felt earthquakes usually last for \_\_\_\_\_.

- A) less than 1 second (they are instantaneous)
- B) 1 to 10 minutes
- C) 1 to 10 seconds
- D) 10 to 60 seconds

Answer: <https://biology-forums.com/index.php?topic=373332>

### Question 16

What organic compounds are essential for DNA and RNA to form?

- A) ammonia and methane
- B) amino acids
- C) hydrogen sulfide
- D) oxygen
- E) carbon dioxide

Answer: <https://biology-forums.com/index.php?topic=373652>

### Question 17

Which era is sometimes called the "age of dinosaurs"?

- A) Cenozoic
- B) Pleistocene
- C) Mesozoic
- D) Cretaceous
- E) none of these

Answer: <https://biology-forums.com/index.php?topic=373664>

### Question 18

How does deforestation by fire or human activity contribute to mass wasting?

- A) It allows farming activity that exposes soil to erosion and mass wasting.
- B) It kills tree roots that help hold the slopes in place, allowing mass movement.
- C) It allows excess rainfall runoff to erode the landscape, triggering mass wasting.
- D) It allows the wind to blow across the slopes, imparting a stress that triggers landslides.

Answer: <https://biology-forums.com/index.php?topic=372938>

### Question 19

A mineral's luster is produced by its ability to transmit light. Opaque minerals always have a metallic luster because they do not transmit any light.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372671>

### Question 20

Continental tropical air masses are most prominent in what part of North America?

- A) the Midwestern United States and Canada
- B) the Southeastern United States
- C) the Pacific Northwest
- D) the Southwestern United States and northern Mexico

Answer: <https://biology-forums.com/index.php?topic=374169>

### Question 21

The very large crystals of quartz, feldspar, and muscovite found in pegmatites form from \_\_\_\_\_.

- A) the middle crystallizing parts of a magma
- B) the early crystallizing parts of a magma
- C) the final crystallizing parts of a magma
- D) all of the above

Answer: <https://biology-forums.com/index.php?topic=372837>

### Question 22

Structural damage from seismic vibrations would be worse \_\_\_\_\_.

- A) where buildings were built to code on solid rock
- B) where the focus is about 800 kilometers below the surface
- C) where older buildings were built on a thick layer of sediment
- D) where buildings are made mostly of wood

Answer: <https://biology-forums.com/index.php?topic=373326>

### Question 23

The Coalescence-Collision Process applies to \_\_\_\_\_.

- A) cold clouds
- B) warm clouds
- C) super cooled water vapor in a cloud
- D) coexisting ice and water droplets in a cloud

Answer: <https://biology-forums.com/index.php?topic=374066>

### Question 24

One type of fossil that can preserve details of organic soft parts is \_\_\_\_\_.

- A) carbonized imprints
- B) cast
- C) coprolites
- D) permineralization

Answer: <https://biology-forums.com/index.php?topic=373544>

### Question 25

Hydrogen "burning" in stars is \_\_\_\_\_.

- A) hydrogen atoms that combine with deuterium atoms to make HD complexes, and this reaction generates immense amounts of energy.
- B) an atomic reaction that fuses 4 protons to make a helium nucleus, releasing energy by converting mass to energy
- C) an atomic reaction that generates hydrogen by splitting helium atoms
- D) a chemical reaction that bonds hydrogen to oxygen to make water, which remains a gas because of the extremely high temperatures

Answer: <https://biology-forums.com/index.php?topic=374517>

### Question 26

The most extensive mountain range on Earth extends for about 65,000 kilometers on the ocean floor and is known as the \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373768>

### Question 27

If you live at high latitude, when do you expect to see the aurora?

- A) during low sun spot activity, when solar flares are most abundant
- B) at times of high sunspot activity, during the active sun
- C) at intermediate periods when sunspots are present but not prominent
- D) at times when the earth's magnetic field has temporarily been weakened

Answer: <https://biology-forums.com/index.php?topic=374516>

### Question 28

What is the role of density in the changes to the earth's atmosphere over time?

Answer: <https://biology-forums.com/index.php?topic=373699>

### Question 29

Why do storm systems move from west to east in mid latitudes of the Northern Hemisphere?

- A) The prevailing wind is from the east, and the storm systems move toward the surface flow.
- B) The prevailing wind is from the west.
- C) The storms are steered by approximately west to east winds aloft that are approximately geostrophic winds produced by Coriolis forces.
- D) The continents break up air flow that would normally be south to north and the Coriolis force turns the storms to the right, or toward the east.

Answer: <https://biology-forums.com/index.php?topic=374128>

### Question 30

What was Hubble's major contribution to Cosmology?

- A) He developed a new method for measuring the absolute magnitude of stars.
- B) He identified numerous new galaxies outside the Milky Way.
- C) He proved the Big Bang Theory.
- D) He measured the size of the universe.
- E) He identified Cepheid Variable stars.

Answer: <https://biology-forums.com/index.php?topic=374542>

### Question 31

Fish most commonly live \_\_\_\_\_.

- A) in the thermoclines
- B) near islands and continents

- C) in the upper part of the oceans
- D) in the deepest parts of the ocean
- E) far from islands and continents

Answer: <https://biology-forums.com/index.php?topic=373802>

### Question 32

Briefly explain how density affects subduction.

Answer: <https://biology-forums.com/index.php?topic=373292>

### Question 33

An echo sounder operates by measuring the time required for a \_\_\_\_\_.

- A) radar beam to travel from a harbor patrol boat to a fuzz-buster on a speeding yacht
- B) radar beam to travel from a ship to the seafloor and back
- C) sound pulse travels from a ship to the seafloor and back
- D) light beam to travel from a satellite at a known altitude to the sea bottom and back

Answer: <https://biology-forums.com/index.php?topic=373707>

### Question 34

What general term denotes a buried, erosional surface where rock layers are missing?

Answer: <https://biology-forums.com/index.php?topic=373582>

### Question 35

Which of the following volcano types are short lived volcanos that last a few days to months and then shut down?

- A) composite volcano
- B) lava dome
- C) cinder cone
- D) shield volcano

Answer: <https://biology-forums.com/index.php?topic=373393>

### Question 36

What is the main factor that determines what will happen to a star after it consumes all of its nuclear fuel?

- A) composition
- B) size
- C) velocity
- D) mass
- E) temperature

Answer: <https://biology-forums.com/index.php?topic=374577>

### Question 37

Laminar flow, where water moves in approximately straight-line paths, characterizes \_\_\_\_\_.

- A) slow-moving streams
- B) the bottoms of channels
- C) the edges of channels
- D) fast-moving streams
- E) all of the above

Answer: <https://biology-forums.com/index.php?topic=373053>

### Question 38

When sea ice forms in high latitudes, the sea ice has \_\_\_\_\_.

- A) lower salinity than the ocean waters it forms from
- B) the same salinity as the ocean waters it forms from
- C) higher salinity than the ocean waters it forms from
- D) It depends on the temperature. If conditions are far below freezing, the salinity is the same as the adjacent seawater; if it is close to freezing, the ice is essentially fresh water

Answer: <https://biology-forums.com/index.php?topic=373847>

### Question 39

In order to get oil and gas in sufficient quantities to make a profit, an oil trap must exist with \_\_\_\_\_.

- A) shale with little or no sulfur.

- B) lateral continuity that allows fluids to migrate
- C) no fractures or structure
- D) permeability and porosity

Answer: <https://biology-forums.com/index.php?topic=372840>

#### Question 40

In general, recrystallization tends to produce larger crystals.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372872>

#### Question 41

Most limestone has a biochemical origin.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372868>

#### Question 42

The Himalayas and Tibet are the archetypical example of a(n) \_\_\_\_\_ mountain belt.

- A) collisional
- B) transform
- C) Andean
- D) continental rift

Answer: <https://biology-forums.com/index.php?topic=373478>

#### Question 43

The composition of the earth's inner core is thought to be \_\_\_\_\_.

- A) peridotite
- B) solid iron-nickel alloy
- C) granite
- D) basalt

Answer: <https://biology-forums.com/index.php?topic=372507>

#### Question 44

\_\_\_\_\_ level refers to each of the feeding stages in the food chain.

Answer: <https://biology-forums.com/index.php?topic=373837>

#### Question 45

A red giant has \_\_\_\_\_.

- A) no outer shell
- B) an iron-rich core
- C) a helium-rich core
- D) high gas pressure
- E) a hydrogen-rich core

Answer: <https://biology-forums.com/index.php?topic=374571>

#### Question 46

This fog results from adiabatic cooling.

- A) steam
- B) radiation
- C) advection
- D) upslope

Answer: <https://biology-forums.com/index.php?topic=374060>

#### Question 47

A(n) \_\_\_\_\_ is a closed depression formed by melting of an ice block buried in a moraine or outwash plain.

Answer: <https://biology-forums.com/index.php?topic=373215>

#### Question 48

Olivine and quartz are commonly found together in the same igneous rock.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372856>

### Question 49

The \_\_\_\_\_ day is the time it takes for Earth to make one complete rotation with respect to a star other than our Sun.

- A) equinox
- B) Julian
- C) synodic
- D) zodiacal
- E) sidereal

Answer: <https://biology-forums.com/index.php?topic=374355>

### Question 50

Which of the following is emplaced over millions of years to form a composite intrusive complex?

- A) sill
- B) laccolith
- C) batholith
- D) dike

Answer: <https://biology-forums.com/index.php?topic=373420>

### Question 51

A naturally occurring concentration of metallic minerals that can be extracted economically is called \_\_\_\_\_ whereas any occurrence of useful minerals that are formed in such quantities that eventual extraction is reasonably certain, but not necessarily profitable, are called \_\_\_\_\_ resources.

Answer: <https://biology-forums.com/index.php?topic=372688>

### Question 52

According to the nebular theory, all of the bodies in the universe evolved from a rotating cloud of gases and dust about five billion years ago.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372554>

### Question 53

Between 25° and 35° latitude, salinity is likely to be \_\_\_\_\_.

- A) high
- B) seasonally variable
- C) low
- D) average

Answer: <https://biology-forums.com/index.php?topic=373784>

### Question 54

What does Einstein's formula  $E = mc^2$  have to do with the Sun?

- A) It relates to how much energy is carried away from the Sun when mass is ejected from the Sun at the speed  $c$ .
- B) It determines the energy released when 4 protons are fused to make a helium atom in the interior of the Sun.
- C) It determines the energy released as the solar mass is converted to energy as matter is intensely compressed in its interior.
- D) The formula has nothing to do with the Sun

Answer: <https://biology-forums.com/index.php?topic=374518>

### Question 55

Most of the energy and mineral resources we use are renewable.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372875>

### Question 56

Tropical cyclones, which are called hurricanes in the Atlantic, are called \_\_\_\_\_ in the western Pacific

- A) cyclones

- B) willy willy's
- C) typhoons
- D) tornadoes

Answer: <https://biology-forums.com/index.php?topic=374205>

### Question 57

A microwave oven is a good example of a familiar device that relies on absorption of electromagnetic waves at fixed frequencies by specific elements or compounds. In this case, water absorbs strongly in the microwave band used by the device, heating water molecules in food. What might a microwave oven imply about measuring microwaves emitted by the Sun on Earth?

- A) Microwave radiation will be heavily absorbed in the earth's atmosphere, particular if humidity is high.
- B) It is irrelevant; the Sun does not emit microwaves.
- C) Microwaves will never make it to Earth because they will get absorbed by hydrogen between Earth and the Sun.
- D) Microwaves must be the major reason for global warming.

Answer: <https://biology-forums.com/index.php?topic=374477>

### Question 58

A low pressure center is called a(n) \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374157>

### Question 59

Flat-topped volcanic structures located on the floor of the deep ocean basin are termed \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373764>

### Question 60

Which of the following physical properties is not generally used to identify most minerals?

- A) hardness
- B) smell
- C) cleavage
- D) luster

Answer: <https://biology-forums.com/index.php?topic=372612>

### Question 61

The magnitude of a temperature increase due to greenhouse warming will probably be smallest in the \_\_\_\_\_.

- A) tropics
- B) higher middle-latitudes
- C) subtropics
- D) polar regions
- E) lower middle-latitudes

Answer: <https://biology-forums.com/index.php?topic=374285>

### Question 62

A wind shift from south or southwest to northwest is commonly associated with the passage of a \_\_\_\_\_ front.

- A) cold
- B) warm
- C) stationary
- D) neither warm nor cold

Answer: <https://biology-forums.com/index.php?topic=374180>

### Question 63

Several of the moons of Saturn, Uranus and Neptune display evidence of volcanic activity. What is the most common type of volcano on these moons?

- A) pyroclastic eruptions of rhyolitic silicate material
- B) basalt shield volcanos
- C) ice volcanos
- D) sulfur volcanos

Answer: <https://biology-forums.com/index.php?topic=374435>

### Question 64

Köppen believed that the distribution of natural \_\_\_\_\_ was an excellent expression of the totality of climate.

Answer: <https://biology-forums.com/index.php?topic=374296>

### Question 65

Although it was not discussed in Chapter 4, what are some preventive measures that can be done to reduce or lessen the impact of mass wasting? (Hint: Think about the controls and triggers of mass wasting.)

Answer: <https://biology-forums.com/index.php?topic=373038>

### Question 66

When rocks experience high temperatures and differential stresses deep in the Earth, their grains tend to \_\_\_\_\_.

- A) break in small fragments like a piece of fine crystal
- B) form new minerals
- C) flatten and elongate
- D) fracture along planes of weakness

Answer: <https://biology-forums.com/index.php?topic=372750>

### Question 67

A \_\_\_\_\_ is the largest discordant body of intrusive, igneous rock.

- A) pluton
- B) lopolith
- C) laccolith
- D) batholith

Answer: <https://biology-forums.com/index.php?topic=373418>

### Question 68

What is the modern explanation for what the ancient Chinese called "guest stars"?

- A) They are comets.
- B) They are Nova or Supernova.
- C) They are planets.
- D) They are meteorites.
- E) None of the above.

Answer: <https://biology-forums.com/index.php?topic=374330>

### Question 69

The \_\_\_\_\_ explains how our solar system probably formed from a giant cloud of gases and dispersed solid particles.

- A) planetary compression theory
- B) protogalactic theory
- C) extrastellar solar hypothesis
- D) nebular hypothesis

Answer: <https://biology-forums.com/index.php?topic=374396>

### Question 70

Mountain building uplifts rocks against the force of gravity raising their potential energy, which requires work by the earth system. Based on the relative motion of fault blocks, what type of fault would you expect to require more energy than the others?

- A) strike-slip
- B) normal
- C) thrust
- D) There is no way of knowing.

Answer: <https://biology-forums.com/index.php?topic=373462>

### Question 71

As the temperature of a radiating surface is increased \_\_\_\_\_.

- A) the total amount of energy emitted increases
- B) a larger portion of the energy is radiated at longer wavelengths
- C) a larger portion of the energy is radiated at shorter wavelengths
- D) both A and B
- E) both A and C

Answer: <https://biology-forums.com/index.php?topic=374474>

### Question 72

Convective cooling cools rocks much more rapidly than heat conduction. Hydrothermal circulation represents convective cooling at ocean ridges and is well known from things like black smokes, but only occurs close to the spreading ridge axis. When geophysicists measure the geothermal gradient in areas along ridges where there is no hydrothermal activity, the thermal gradient is far below what you would predict theoretically, but near hydrothermal vents it is far more than you would predict. Why would this be?

- A) Organisms growing around hydrothermal vents disturb the thermal properties, insulating the surface, to make an apparent high thermal gradient.
- B) The thermal gradient in water represented by the hydrothermal system must be different than the rock, so it is measurement artifact.
- C) The measurements are incorrect because it is too hot to measure thermal gradient in molten rock.
- D) Most of the heat is carried away by convection as hydrothermal systems, so the average geothermal gradient away from the hydrothermal circulation is depressed.

Answer: <https://biology-forums.com/index.php?topic=373737>

### Question 73

Mt. St. Helens in the U. S. and Mt. Fujiyama in Japan are examples of \_\_\_\_\_.

- A) cinder cones
- B) composite volcanos
- C) calderas
- D) shield volcanos

Answer: <https://biology-forums.com/index.php?topic=373405>

### Question 74

For a geologist, the most important characteristic of a sedimentary rock is its \_\_\_\_\_.

- A) texture
- B) layering
- C) lithology
- D) composition

Answer: <https://biology-forums.com/index.php?topic=372741>

### Question 75

Sedimentary rocks with marine fossils are exposed at the top of Mt. Everest. Which scientists would make most use of this observation in their study?

- A) Astronomers, because they can study how life came from outer space to Earth
- B) Meteorologists, because they could use the fossils as a guide to ancient climates
- C) Geologists, because their elevation is related to physical geology and fossils are related to Earth history
- D) Oceanographers, because the fossils can tell us about periods when the earth was covered with water to the height of Mt. Everest

Answer: <https://biology-forums.com/index.php?topic=372481>

### Question 76

The Sahara and Australian deserts (among others) are associated with the \_\_\_\_\_.

- A) subpolar low
- B) equatorial low
- C) polar high
- D) subtropical high

Answer: <https://biology-forums.com/index.php?topic=374124>

### Question 77

Why are meteorites a possible source of information regarding the origin and composition of Earth? Also, what other "clues" might be present in meteorites?

Answer: <https://biology-forums.com/index.php?topic=374463>

### Question 78

Which one of the objects listed below has the largest size?

- A) galactic clusters
- B) stars
- C) galaxies
- D) globular clusters
- E) nebula

Answer: <https://biology-forums.com/index.php?topic=374581>

### Question 79

List three mechanisms of heat transfer.

Answer: <https://biology-forums.com/index.php?topic=373996>

### Question 80

What are the three variables used in the Köppen system to establish the boundary between dry and humid climates?

Answer: <https://biology-forums.com/index.php?topic=374304>

### Question 81

Sulfates always include \_\_\_\_\_.

- A) SO<sub>4</sub><sup>-2</sup>
- B) Cl<sup>-1</sup>, F<sup>-1</sup>, or Br<sup>-1</sup>
- C) SiO<sub>4</sub><sup>-4</sup>
- D) CO<sub>3</sub><sup>-2</sup>

Answer: <https://biology-forums.com/index.php?topic=372633>

### Question 82

The \_\_\_\_\_ is the relatively rigid zone above the asthenosphere that includes the crust and upper mantle.

Answer: <https://biology-forums.com/index.php?topic=372576>

### Question 83

One reason the temperature decreases with increasing altitude in the troposphere is \_\_\_\_\_.

- A) the solar radiation is absorbed by ozone in the stratosphere
- B) the chemical reaction that forms ozone gives off heat and ozone increases in concentration toward the upper troposphere
- C) molecular spacing increases with increasing altitude
- D) the water vapor in the troposphere is heated by terrestrial radiation

Answer: <https://biology-forums.com/index.php?topic=373980>

### Question 84

A scientific theory is the first step in developing an idea. It is not very well tested.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372550>

### Question 85

manganese nodules calcareous ooze metal sulfides evaporites

Answer: <https://biology-forums.com/index.php?topic=373757>

### Question 86

Which of the following best describes the bedrock in the Sierra Nevada Mountains in California?

- A) granite; batholiths
- B) gabbro; plutoliths
- C) basalt; dikes
- D) andesite; laccoliths

Answer: <https://biology-forums.com/index.php?topic=373423>

### Question 87

Monoclines, anticlines, synclines and domes are all examples of \_\_\_\_\_.

- A) foliation
- B) faulting
- C) flow
- D) jointing

Answer: <https://biology-forums.com/index.php?topic=373450>

### Question 88

A geologist is looking at deposits along a river below a large volcano. She finds large boulders mixed with sand and mud, and all of the material is comprised of volcanic rocks, particularly the mud which is volcanic ash. She quickly realizes these deposits represent an ancient \_\_\_\_\_.

- A) slump
- B) earthflow
- C) rock avalanche
- D) lahar

Answer: <https://biology-forums.com/index.php?topic=372956>

### Question 89

Compare and contrast Bergeron Process with the Collision-Coalescence Process.

Answer: <https://biology-forums.com/index.php?topic=374095>

### Question 90

continental shelf continental rise continental slope continental volcanic arc

Answer: <https://biology-forums.com/index.php?topic=373755>

### Question 91

Tropical cyclones (aka hurricanes in the Atlantic) are intense low-pressure systems characterized by heavy rain and high winds. When a tropical cyclone passes an area, however, there are generally several days of clear, dry weather. Why might this occur?

- A) The cyclone must have an outflow aloft, which feeds descending air surrounding the storm.
- B) The spiral arms of the hurricane are storm fronts, and each carries descending air behind it.
- C) The hurricane carries a cold front with it, which carries dry air.
- D) The cyclone has sucked up all the moist air around it, leaving dry air behind.

Answer: <https://biology-forums.com/index.php?topic=374119>

### Question 92

The formation of the solar system from a huge cloud of gases and dispersed particles is known as the solar galactic hypothesis.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372553>

### Question 93

The North American Cordillera formed as a result of \_\_\_\_\_.

- A) the growth of the Appalachian Mountains
- B) the evolution of the San Andreas Fault zone
- C) the subduction of the Pacific basin beneath North America
- D) the subduction of the Atlantic basin beneath North America

Answer: <https://biology-forums.com/index.php?topic=373649>

### Question 94

A statement you will sometimes hear people say is that a day is not 24 hours but is really 23 hr. 56 min. and 4 sec. What does this refer to?

- A) The original definition of the hour was off, and with more accurate atomic clocks we now realize the real day is this length.
- B) Our clocks drift that much each day, and we average out the affect with period time shifts, like leap years and leap seconds.
- C) It is just an urban geek myth; the day really is 24 hours long.
- D) This is sidereal time, not solar time; a solar day is 24 hours.

Answer: <https://biology-forums.com/index.php?topic=374358>

### Question 95

Antarctica's ice represents approximately 65% of the earth's fresh water supply and many populated regions need that water. Should we develop a program to mine Antarctica's ice and redistribute it to areas where it is needed? Explain your answer.

Answer: <https://biology-forums.com/index.php?topic=373222>

### Question 96

Most earthquakes occur along \_\_\_\_\_ plate boundaries.

Answer: <https://biology-forums.com/index.php?topic=373356>

### Question 97

cut bank point bar natural levee delta

Answer: <https://biology-forums.com/index.php?topic=373120>

### Question 98

The process in which plants use light energy to synthesize food sugars from carbon dioxide is called \_\_\_\_\_.

- A) photosynthesis
- B) oxidation
- C) fusion

- D) hydration
- E) none of these

Answer: <https://biology-forums.com/index.php?topic=373618>

### Question 99

Of the following, which one would most likely be triggered by an earthquake?

- A) rock avalanche
- B) soil creep
- C) slump
- D) solifluction

Answer: <https://biology-forums.com/index.php?topic=372959>

### Question 100

Desert streams are characterized by \_\_\_\_\_.

- A) increasing discharge downstream
- B) decreasing discharge downstream
- C) well-sorted, rounded clasts of sediment
- D) short, frequent tributaries
- E) long, frequent tributaries

Answer: <https://biology-forums.com/index.php?topic=373193>

### Question 101

The outermost layer of the Sun is called the \_\_\_\_\_.

- A) corona
- B) ionosphere
- C) photosphere
- D) megasphere
- E) chromosphere

Answer: <https://biology-forums.com/index.php?topic=374499>

### Question 102

The minerals gold, silver and mercury are often found in \_\_\_\_\_.

- A) the lower parts of an intrusion
- B) hydrothermal veins
- C) alteration of limestone
- D) disseminated deposits

Answer: <https://biology-forums.com/index.php?topic=372838>

### Question 103

Ocean floor averages about \_\_\_\_\_ km depth below sea level.

- A) 4
- B) 8
- C) 6
- D) 2

Answer: <https://biology-forums.com/index.php?topic=372522>

### Question 104

\_\_\_\_\_ make up the suspended loads of most rivers and streams.

- A) Silt and clay-sized, detrital grains
- B) Dissolved salts
- C) Sand and gravel that move during floods
- D) Dissolved ions and sand

Answer: <https://biology-forums.com/index.php?topic=373065>

### Question 105

The latent heat of melting is 80 calories for 1 gram of ice. If 1 gram of ice absorbs 120 calories, what do I get?

- A) a mixture of water and steam at a temperature of 120°C
- B) 1 gram of water at a temperature of 20°C
- C) a mixture of ice and water at a temperature of 0°C
- D) 1 gram of water at a temperature of 120°C

E) 1 gram of water at a temperature of 40°C

Answer: <https://biology-forums.com/index.php?topic=374006>

### Question 106

How is sea ice different from glacial ice?

- A) Sea ice is thinner than glacial ice, and sea ice floats while glacial ice does not float.
- B) Sea ice is thinner than glacial ice, and both sea ice and glacial ice can float.
- C) Sea ice is thicker than glacial ice, and both sea ice and glacial ice can float.
- D) Sea ice is thicker than glacial ice, and sea ice floats while glacial ice does not float.

Answer: <https://biology-forums.com/index.php?topic=373168>

### Question 107

The rock pumice often floats yet the density of the rock is greater than water. Why does it float?

- A) Pumice is a rock made of rhyolite glass that erupts into water, which traps water in voids and makes the material less dense than water.
- B) Pumice is a pyroclastic rock comprised largely of open voids formed by gases released when the magma solidified as froth-like material.
- C) Pumice is a pyroclastic rock derived from rhyolite glass, and rhyolite glass has a lower density than water.
- D) Pumice is another name for dacite, a low-density rock that floats in water.

Answer: <https://biology-forums.com/index.php?topic=373388>

### Question 108

In terrain with steep hill slopes, which crop and cultivation technique will minimize soil erosion?

- A) apples; land between the trees is planted in grass and not cultivated
- B) corn; rows trending straight down the slope, frequent cultivation
- C) bean; rows are spaced wider than on a level field
- D) winter wheat; after the harvest, the field is plowed and left idle until next fall

Answer: <https://biology-forums.com/index.php?topic=372932>

### Question 109

Faunal succession recognized in the sequence of fossils in stratified sedimentary rocks was a key concept that led to \_\_\_\_\_.

- A) continental drift
- B) Catastrophism and evidence the world was once covered with water
- C) sea floor spreading
- D) the concept of evolution of life on Earth

Answer: <https://biology-forums.com/index.php?topic=373552>

### Question 110

Island arcs and Andean type mountains are both examples of mountains formed by \_\_\_\_\_.

- A) subduction
- B) rifting/oceanic spreading
- C) transform faults
- D) collisional tectonics

Answer: <https://biology-forums.com/index.php?topic=373466>

### Question 111

Breccia, a rock with angular particles, is likely to have traveled \_\_\_\_\_.

- A) only a short distance
- B) in a mountain stream
- C) in a glacier
- D) a long distance

Answer: <https://biology-forums.com/index.php?topic=372721>

### Question 112

The longest wavelengths on the electromagnetic spectrum are \_\_\_\_\_.

- A) gamma
- B) radio
- C) ultraviolet
- D) infrared

Answer: <https://biology-forums.com/index.php?topic=373972>

### Question 113

Volcanic bombs originate \_\_\_\_\_.

- A) as erupted magma blobs that partly congeal before falling to the ground
- B) as blocks of volcanic rock ejected from an erupting volcanic crater
- C) as laser-guided, granite blocks launched from a supersonic jet
- D) as ash particles that join together in the eruptive plume and fall as cobble-sized objects

Answer: <https://biology-forums.com/index.php?topic=373382>

### Question 114

The slopes of most cinder cones are usually about 30 degrees because \_\_\_\_\_.

- A) cinder cones are mostly basalt and basalt is too weak to maintain a slope greater than 30 degrees
- B) the loose materials ejected from the cone form slopes at the angle of repose
- C) they are composites of loose material and lava and the viscosity of the lava requires the slopes to form at about 30 degrees
- D) The statement is false; most cinder cones have slopes less than 10 degrees because of the low viscosity of basalt lava flows.

Answer: <https://biology-forums.com/index.php?topic=373401>

### Question 115

Which of the following best defines a mineral and a rock?

- A) A mineral consists of its constituent atoms arranged in a geometrically repetitive structure; in a rock, the atoms are randomly bonded without any geometric pattern.
- B) A rock has an orderly, repetitive, geometrical, internal arrangement of minerals; a mineral is a lithified or consolidated aggregate of rocks.
- C) A rock consists of atoms bonded in a regular, geometrically predictable arrangement; a mineral is a consolidated aggregate of different rock particles.
- D) In a mineral the constituent atoms are bonded in a regular, repetitive, internal structure; a rock is a lithified or consolidated aggregate of different mineral grains.

Answer: <https://biology-forums.com/index.php?topic=372588>

### Question 116

\_\_\_\_\_ is the quantity of water flowing past a certain stream cross section per unit time.

Answer: <https://biology-forums.com/index.php?topic=373127>

### Question 117

Coriolis effect jet stream friction pressure gradient force

Answer: <https://biology-forums.com/index.php?topic=374146>

### Question 118

In the Ptolemaic (Greek) model of the universe, the stars are attached to the \_\_\_\_\_.

- A) stadia
- B) plane of the ecliptic
- C) celestial sphere
- D) deferent
- E) zodiac

Answer: <https://biology-forums.com/index.php?topic=374324>

### Question 119

Major earthquakes are often followed by somewhat smaller events known as \_\_\_\_\_.

- A) foreshocks
- B) aftershocks
- C) tremors
- D) hyposhocks

Answer: <https://biology-forums.com/index.php?topic=373300>

### Question 120

A(n) \_\_\_\_\_ fault forms when the hanging wall moves down relative to the footwall .

Answer: <https://biology-forums.com/index.php?topic=373497>

### Question 121

In the 1906 San Francisco earthquake, much of the damage was due to fires because \_\_\_\_\_.

- A) water lines were badly damage so that firemen could not put out the fires
- B) electric power lines fell and caused sparks that started fires
- C) the shaking caused gas lines to rupture everywhere and these ignited to cause huge fire storms in the city
- D) a cow kicked over a lantern in a barn and started the fires

Answer: <https://biology-forums.com/index.php?topic=373297>

### Question 122

In an area where the temperature increase with depth averages 20°C per kilometer, the temperature at a depth of 5 kilometers would be \_\_\_\_\_.

- A) 100°C
- B) 50°C
- C) 20°C
- D) 200°C

Answer: <https://biology-forums.com/index.php?topic=372747>

### Question 123

Mt. Vesuvius Mt. Mazama Mount Pelée Kilauea

Answer: <https://biology-forums.com/index.php?topic=373434>

### Question 124

Compared to places at lower elevations, highland climates are usually cooler and \_\_\_\_\_.

- A) wetter
- B) less changeable
- C) dryer
- D) sunny
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=374270>

### Question 125

Degenerate matter can have densities 1 million times greater than the density of water, and they achieve this density by \_\_\_\_\_.

- A) compressing all of the electrons so that they are close to the nucleus
- B) converting the atomic nucleus to a small volume with high mass by expelling all neutrons
- C) forming ions that bond electrostatically so that there volume is very small
- D) fusing all of their atoms into super atoms with very high atomic numbers

Answer: <https://biology-forums.com/index.php?topic=374576>

### Question 126

What were the three gases that made up Earth's original atmosphere?

Answer: <https://biology-forums.com/index.php?topic=373679>

### Question 127

Clay minerals are light silicates that form \_\_\_\_\_.

- A) from molten rock
- B) from pressure and heat.
- C) from chemical weathering of igneous rocks
- D) from mechanical weathering of any rock

Answer: <https://biology-forums.com/index.php?topic=372629>

### Question 128

Which component of the water cycle describes the recharge of water to the soil and groundwater systems?

Answer: <https://biology-forums.com/index.php?topic=373124>

### Question 129

The word topsoil is commonly used, but not always correctly. The proper definition is \_\_\_\_\_.

- A) the entire soil down to the base of the C horizon
- B) the A, E and B horizons
- C) the dark, organic rich layers of O and A
- D) only the O horizon

Answer: <https://biology-forums.com/index.php?topic=372922>

### Question 130

A major site of sediment deposition during the Cenozoic was \_\_\_\_\_.

- A) the Gulf of Mexico
- B) central Texas
- C) the Rocky Mountains
- D) the western coast of the U.S.
- E) the central U.S.

Answer: <https://biology-forums.com/index.php?topic=373651>

### Question 131

The major difference between floods in humid regions and in dry regions is \_\_\_\_\_.

- A) in dry regions, flooding lasts much longer than in humid regions because the water cannot soak into the baked desert soil.
- B) in dry regions, flooding is a very fast process because there are fewer plants
- C) in dry regions, flooding lasts only a short time because the water is immediately soaked up by the dry desert soil.
- D) in dry regions, flooding is a very slow process because there is less water

Answer: <https://biology-forums.com/index.php?topic=373197>

### Question 132

Granite and gabbro \_\_\_\_\_.

- A) are not similar in either texture or mineral composition
- B) have a similar texture
- C) are similar in both texture and mineral composition
- D) have a similar mineral composition

Answer: <https://biology-forums.com/index.php?topic=372708>

### Question 133

The boundaries of the Köppen climates are largely based on the limits of certain \_\_\_\_\_ associations.

Answer: <https://biology-forums.com/index.php?topic=374300>

### Question 134

The earliest seismographs were designed by the Chinese nearly 2000 years ago to measure \_\_\_\_\_.

- A) the direction to the earthquake focus
- B) the intensity of an earthquake
- C) the magnitude of an earthquake
- D) the depth of an earthquake focus

Answer: <https://biology-forums.com/index.php?topic=373311>

### Question 135

Deposits of windblown silt are called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373219>

### Question 136

Thunderstorms form from what type of cloud?

- A) altostratus
- B) stratus
- C) cumulonimbus
- D) cirrus

Answer: <https://biology-forums.com/index.php?topic=374194>

### Question 137

What is a typical rate for seafloor spreading?

- A) 2 cm/hr
- B) 2 cm/s
- C) 2 cm/day
- D) 2 cm/yr

Answer: <https://biology-forums.com/index.php?topic=373253>

### Question 138

You are in mid-latitudes in winter. You experience heavy snow followed by a dramatic drop in temperature as a cold front passes, but for almost 24 hours the weather is clear. Then, high clouds appear in the west, thicken to stratus clouds and you receive a light new snowfall (aka snow flurries) but the temperature remains cold. You have just seen the passage of \_\_\_\_\_.

- A) a second cold front
- B) a warm front
- C) a stationary front
- D) an occluded front

Answer: <https://biology-forums.com/index.php?topic=374184>

### Question 139

There are people who specialize in "cutting" diamonds, yet diamond is the hardest known substance. From your knowledge of minerals, which of the following describes what the diamond cutter does?

Answer: <https://biology-forums.com/index.php?topic=372690>

### Question 140

In the Mississippi River delta in south Louisiana shallow subsurface imaging of the sediments reveal buried channels beneath delta sediments that are less than 10,000 years, and these channels extend offshore to the edge of the continental shelf. What is a simple explanation for these buried channels?

- A) They represent channels of the Mississippi river delta when sea level was lower, during the ice age.
- B) They represent giant flood events before the delta was formed and before the river formed.
- C) Turbidity currents cut a submarine canyon on the shelf before the delta buried them.
- D) The river must have been bigger in the past, cutting a channel clear to the edge of the shelf below sea level.

Answer: <https://biology-forums.com/index.php?topic=373717>

### Question 141

Which statement best describes slumping, a mass wasting process?

- A) A block or blocks of unconsolidated regolith slide downhill along a curved slip surface.
- B) The soil and regolith move downhill very slowly.
- C) A mass of soil or regolith becomes saturated with water and suddenly flows downhill to the base of the slope.
- D) Blocks of hard bedrock rapidly slide downhill along fracture surfaces.

Answer: <https://biology-forums.com/index.php?topic=372953>

### Question 142

The bond between sodium (Na) and Chlorine (Cl) to form halite (salt) is a(n) \_\_\_\_\_ bond.

- A) ionic
- B) metallic
- C) covalent
- D) valent

Answer: <https://biology-forums.com/index.php?topic=372600>

### Question 143

Why is it so difficult to interpret the geology of the Precambrian? How are these difficulties or limitations different in the younger eras of the Phanerozoic Eon? Finally, are there unique rocks or events in the Precambrian that are not present in younger rocks?

Answer: <https://biology-forums.com/index.php?topic=373700>

### Question 144

As they formed, due to their high temperatures and comparatively weak gravitational fields, which planets were unable to retain appreciable amounts of hydrogen, helium, and ammonia?

- A) Mercury and Earth
- B) Jupiter and Uranus
- C) Neptune and Uranus
- D) Jupiter and Neptune
- E) Uranus and Pluto

Answer: <https://biology-forums.com/index.php?topic=373612>

### Question 145

Oceanic crust is generated at \_\_\_\_\_.

- A) spreading ridges
- B) hot spots on the sea floor, like Iceland
- C) convergent plate margins

D) transform plate margins

Answer: <https://biology-forums.com/index.php?topic=372514>

### Question 146

the big volcanoes of Hawaii

Answer: <https://biology-forums.com/index.php?topic=373439>

### Question 147

Gold is one of the rarest elements in the universe, yet it is extracted from ores on Earth. How is this possible?

Answer: <https://biology-forums.com/index.php?topic=372691>

### Question 148

Considering the history of Mt. St. Helens and Kilauea volcanoes and your knowledge of volcano types in different tectonic settings, if you had to live on a volcano, which of the following would you choose if safety was your only concern?

- A) Mt. Spurr in the Aleutian volcanic arc
- B) Mt. Rainier in the Cascades just north of Mt. St. Helens
- C) Mauna Loa in Hawaii, on the Big Island of Hawaii near Kilauea
- D) Mt Fujiyama in the Japanese island arc

Answer: <https://biology-forums.com/index.php?topic=373370>

### Question 149

The "Big Bang" is an example of theory.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372552>

### Question 150

At first quarter it is approximately \_\_\_\_\_ week(s) until the new moon.

- A) 1
- B) 2
- C) 3
- D) 4

Answer: <https://biology-forums.com/index.php?topic=374366>

### Question 151

As a form of flood control, \_\_\_\_\_ involves altering a stream channel to speed the flow of water to prevent it from reaching flood height.

Answer: <https://biology-forums.com/index.php?topic=373132>

### Question 152

Stability prevails when the environmental lapse rate is \_\_\_\_\_.

- A) greater than the dry adiabatic rate
- B) less than the wet adiabatic rate
- C) greater than the wet adiabatic rate and less than the dry adiabatic rate
- D) greater than both the wet and dry adiabatic rates

Answer: <https://biology-forums.com/index.php?topic=374035>

### Question 153

\_\_\_\_\_ involves the downslope movement of a block or blocks of unconsolidated soil and regolith along a curved, slip surface.

Answer: <https://biology-forums.com/index.php?topic=373035>

### Question 154

Seawater has become more acidic since the industrial revolution and this is commonly attributed to \_\_\_\_\_.

- A) the increase in CO<sub>2</sub> being put into the atmosphere and then absorbed into the oceans.
- B) the loss of calcite-secreting organisms and reef-builders in the oceans due to pollution.
- C) human dumping of large quantities of waste materials into the oceans that increase the acid content of the water
- D) a decrease in the amount of base compounds to neutralize the natural acids in seawater
- E) global climate change, which is changing the temperature of seawater and producing a related change in the water chemistry

Answer: <https://biology-forums.com/index.php?topic=373786>

### Question 155

Quartz is quite resistant to weathering and is an important component of sands in riverbeds and on beaches.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372860>

### Question 156

calving zone of accumulation melting zone of wastage

Answer: <https://biology-forums.com/index.php?topic=373207>

### Question 157

The bond between two hydrogen atoms (a covalent bond) is based on the force of attraction between \_\_\_\_\_.

- A) two ions
- B) protons in the nuclei and electrons surrounding the nuclei
- C) two atoms
- D) two nuclei

Answer: <https://biology-forums.com/index.php?topic=372601>

### Question 158

What does the tendency of micas to produce thin cleavage flakes suggest about its crystal structure?

- A) The structure is produced by flow in the igneous rock, aligning glass layers within the crystal structure.
- B) The atoms are arranged in orderly arrangements that form strongly bonded sheets separated by weak bonds between the sheets.
- C) The crystal structure is characterized by complex polymerized mats that form a sheetlike structure.
- D) The structure is characterized by rings that form an interlocking network, forming planar sheets.

Answer: <https://biology-forums.com/index.php?topic=372610>

### Question 159

Almost \_\_\_\_\_ of Australia is desert.

- A) 50%
- B) 40%
- C) 10%
- D) 20%
- E) 30%

Answer: <https://biology-forums.com/index.php?topic=374249>

### Question 160

\_\_\_\_\_ is the fan-shaped pile of broken rock fragments at the base of a steep, bedrock slope or cliff.

Answer: <https://biology-forums.com/index.php?topic=373034>

### Question 161

Ocean life appears to be affected by a relatively small number of variables such as temperature, density, available sunlight, available nutrients. If any one of these variables changes how do you think it might impact the human food web?

Answer: <https://biology-forums.com/index.php?topic=373838>

### Question 162

The source of the Sun's energy is \_\_\_\_\_.

- A) potential energy
- B) nuclear fusion
- C) chemical burning
- D) heat of contraction
- E) nuclear fission

Answer: <https://biology-forums.com/index.php?topic=374501>

### Question 163

The most common group of silicates is \_\_\_\_\_.

- A) quartz
- B) feldspar
- C) granite

D) mica

Answer: <https://biology-forums.com/index.php?topic=372624>

### Question 164

If Yellowstone were on the ocean floor, it would produce \_\_\_\_\_.

- A) an island arc
- B) a chain of line islands, like Hawaii
- C) a trench
- D) a mid-ocean ridge

Answer: <https://biology-forums.com/index.php?topic=373728>

### Question 165

superposition correlation original horizontality inclusions

Answer: <https://biology-forums.com/index.php?topic=373578>

### Question 166

Which of the following is not a very long-lived, radioactive isotope?

- A) C-14
- B) U-238
- C) Rb-87
- D) K-40

Answer: <https://biology-forums.com/index.php?topic=373558>

### Question 167

Which of the following is not true of first generation stars?

- A) They have violent, explosive deaths.
- B) They are very dense.
- C) They are massive.
- D) They are composed primarily of hydrogen.
- E) They are short-lived.

Answer: <https://biology-forums.com/index.php?topic=374566>

### Question 168

If air at sea level with a temperature of 27°C is forced up a mountain slope and the air's dew point at the condensation level is 14°C, at what elevation will condensation begin?

- A) 2600 meters
- B) 2700 meters
- C) 1400 meters
- D) 1300 meters

Answer: <https://biology-forums.com/index.php?topic=374027>

### Question 169

Why are boulders not a mineral?

- A) They are not naturally occurring.
- B) They are organic.
- C) They do not have an orderly crystalline structure.
- D) They do not have a well-defined chemical composition.
- E) They are not solid.

Answer: <https://biology-forums.com/index.php?topic=372586>

### Question 170

The Appalachians were formed by three phases of \_\_\_\_\_ orogeny.

- A) transform
- B) collisional
- C) rifting
- D) Andean

Answer: <https://biology-forums.com/index.php?topic=373482>

### Question 171

Very large red stars, such as Betelgeuse in the constellation Orion, are called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374596>

### Question 172

Which of the following changes may occur during metamorphism?

- A) Certain minerals may recrystallize.
- B) Crystals may grow larger.
- C) The rock becomes more compact.
- D) all of the above

Answer: <https://biology-forums.com/index.php?topic=372830>

### Question 173

Magma is currently forming beneath the Rockies.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372850>

### Question 174

Why does the central United States from Texas to the Ohio Valley experience the greatest frequency of tornadoes on Earth? What time of year do they occur and why?

Answer: <https://biology-forums.com/index.php?topic=374227>

### Question 175

Considering the albedo of various surfaces, compare daily temperature ranges and means for an urban area to a more rural setting of crops and forests. Also, are there any other factors other than albedo that might affect these temperature variations?

Answer: <https://biology-forums.com/index.php?topic=374000>

### Question 176

Which rock type is associated with a high-energy environment (such as a very turbulent stream)?

- A) chert
- B) shale
- C) conglomerate
- D) none of these

Answer: <https://biology-forums.com/index.php?topic=372734>

### Question 177

This term is used to describe clouds found in the middle height range.

- A) cirrus
- B) cumulus
- C) stratus
- D) alto

Answer: <https://biology-forums.com/index.php?topic=374048>

### Question 178

\_\_\_\_\_ include all organisms that drift with ocean currents.

Answer: <https://biology-forums.com/index.php?topic=373830>

### Question 179

A ridge of sand projecting into a bay and often having a hooked end is a \_\_\_\_\_.

- A) spit
- B) sea stack
- C) groin
- D) jetty

Answer: <https://biology-forums.com/index.php?topic=373876>

### Question 180

A(n) \_\_\_\_\_ is a thick accumulation of sediments and small tectonic blocks formed of material scraped off subducting oceanic lithosphere at a convergent margin.

- A) subterranean-accumulation complex

- B) accretionary-wedge complex
- C) mass movement complex
- D) continental shelf, terrain complex

Answer: <https://biology-forums.com/index.php?topic=373469>

### Question 181

Ice sheets can be \_\_\_\_\_.

- A) tens of kilometers thick
- B) several centimeters thick
- C) several kilometers thick
- D) several meters thick

Answer: <https://biology-forums.com/index.php?topic=373169>

### Question 182

Which soil horizon represents the uppermost limit of the zone of accumulation, also referred to as the subsoil?

- A) A
- B) B
- C) C
- D) E

Answer: <https://biology-forums.com/index.php?topic=372924>

### Question 183

Which of the following colors has the longest wavelength?

- A) red
- B) orange
- C) blue
- D) violet
- E) green

Answer: <https://biology-forums.com/index.php?topic=374465>

### Question 184

Pluto is now classified as a \_\_\_\_\_ in our solar system.

- A) Jovian planet
- B) comet
- C) terrestrial planet
- D) dwarf planet

Answer: <https://biology-forums.com/index.php?topic=374441>

### Question 185

The pycnocline is a rapid change in \_\_\_\_\_ with depth in the ocean.

Answer: <https://biology-forums.com/index.php?topic=373822>

### Question 186

Radiolarian chert is a common sedimentary rock accreted along active margins in the circum-pacific. It is produced in the deep sea by the accumulation of siliceous radiolarian shells. What kind of sediment is radiolarian chert?

- A) biogenous sediment
- B) terrigenous sediment
- C) hydrogenous sediment
- D) both terrigenous and biogenous sediment

Answer: <https://biology-forums.com/index.php?topic=373743>

### Question 187

Köppen believed that the distribution of \_\_\_\_\_ was an excellent expression of the totality of climate.

- A) solar energy
- B) ocean basins
- C) natural vegetation
- D) sedimentary rocks
- E) tsunami

Answer: <https://biology-forums.com/index.php?topic=374238>

### Question 188

Mount Pelée on the island of Martinique killed thousands of people in \_\_\_\_\_.

- A) a cinder cone eruption
- B) a pyroclastic flow, also called a Nuée Ardent
- C) a caldera collapse
- D) an ash fall that smothered the people living there

Answer: <https://biology-forums.com/index.php?topic=373407>

### Question 189

Irregularities in brightness on the Sun's photosphere (granules) are produced by \_\_\_\_\_.

- A) large convective cells within the photosphere
- B) pods of solid mass ejected to the photosphere by violent explosions within the Sun's interior, hence the name granule
- C) different elemental abundances being stirred within the photosphere, to produce variable brightness
- D) local violent explosions within the photosphere equivalent to a hydrogen bomb explosion

Answer: <https://biology-forums.com/index.php?topic=374508>

### Question 190

El Niño is a well known-weather phenomenon. In Ecuador and Peru, fishermen knew about the phenomenon long before it was well known because their fishing would be very poor during El Niño conditions. Normally Peru and Ecuador have a remarkable fishery because there is a prominent upwelling along the coast which produces planktonic blooms that feed the entire ecosystem. This upwelling is driven by surface wind conditions. From your knowledge of currents and wind conditions, which of the following happens during El Niño conditions in this area?

- A) The winds shift from prevailing southwesterlies to stagnant, doldrum conditions during El Niño.
- B) The winds shift from south to north, along the coast, to west to east, across the coast.
- C) The winds shift from west to east (onshore flow) to offshore flow (east to west) during El Niño conditions.
- D) The winds change from east to west (offshore flow) to onshore flow or weak winds during El Niño conditions.

Answer: <https://biology-forums.com/index.php?topic=373848>

### Question 191

Deserts and steppes occur at middle latitudes because of \_\_\_\_\_.

- A) subsiding air currents
- B) rising air currents
- C) mountains that block the moisture and long distances from the oceans
- D) high temperatures

Answer: <https://biology-forums.com/index.php?topic=373200>

### Question 192

The resistance of a mineral to abrasion is known as \_\_\_\_\_.

- A) cleavage
- B) streak
- C) hardness
- D) luster

Answer: <https://biology-forums.com/index.php?topic=372606>

### Question 193

protosun Oort cloud planetesimals meteorites

Answer: <https://biology-forums.com/index.php?topic=372539>

### Question 194

electron atom proton neutron

Answer: <https://biology-forums.com/index.php?topic=372646>

### Question 195

trade winds westerlies Chinook polar easterlies

Answer: <https://biology-forums.com/index.php?topic=374148>

### Question 196

The most common sedimentary rock is \_\_\_\_\_.

- A) conglomerate

- B) shale
- C) sandstone
- D) breccia

Answer: <https://biology-forums.com/index.php?topic=372723>

### Question 197

The Great Oxygen Event marks the time, approximately 2.5 billion years ago, when \_\_\_\_\_.

- A) photosynthesis was clearly established and producing oxygen.
- B) there was enough oxygen in the atmosphere to support a major burst of life on Earth
- C) there was a cataclysmic weather event that absorbed most of the oxygen in the atmosphere and locked it into iron deposits in the oceans
- D) there was a massive volcanic eruption that led to a very rapid increase in oxygen levels on Earth
- E) there was significant oxygen in the atmosphere

Answer: <https://biology-forums.com/index.php?topic=373622>

### Question 198

\_\_\_\_\_ clouds that form sheets or layers that cover much of the sky.

Answer: <https://biology-forums.com/index.php?topic=374084>

### Question 199

Carbon dioxide is an important influence on climate because \_\_\_\_\_.

- A) it absorbs incoming short wavelength solar radiation, but it passes some longer wavelength outgoing earth radiation
- B) it absorbs incoming long wavelength solar radiation, but it passes short wavelength outgoing earth radiation
- C) it passes incoming long wavelength solar radiation, but it absorbs short wavelength outgoing earth radiation
- D) it passes incoming short wavelength solar radiation, but it absorbs some longer wavelength outgoing earth radiation
- E) None of the above is correct.

Answer: <https://biology-forums.com/index.php?topic=374273>

### Question 200

A Category 5 hurricane in the open water can obtain top wind speed comparable to \_\_\_\_\_.

- A) an F4 tornado
- B) an F1 tornado
- C) the top speed of an old style Volkswagen beetle
- D) a plane flying near supersonic speed

Answer: <https://biology-forums.com/index.php?topic=374213>

### Question 201

A Santa Ana (or Chinook or Foehn) wind is a \_\_\_\_\_.

- A) cold, damp wind blowing off a snow field
- B) very dry, warm wind flowing down a mountain slope
- C) wind associated with a blizzard
- D) wind that is common to the world's deserts

Answer: <https://biology-forums.com/index.php?topic=374133>

### Question 202

If "fair" weather were approaching, the pressure tendency would probably be \_\_\_\_\_.

- A) rising
- B) falling
- C) steady
- D) none of these

Answer: <https://biology-forums.com/index.php?topic=374116>

### Question 203

What fuel is the source of energy from the Sun?

- A) lithium
- B) hydrogen
- C) oxygen
- D) helium

Answer: <https://biology-forums.com/index.php?topic=374519>

### Question 204

A continental Polar (cP) air mass that originates in Siberia and is subsequently altered to \_\_\_\_\_ when crossing the north Pacific

- A) mT
- B) mP
- C) cP
- D) cT

Answer: <https://biology-forums.com/index.php?topic=374173>

### Question 205

How do freezing, thawing, wetting, and drying contribute to soil creep?

- A) Gravity exerts a much stronger force when the soil is wet and thawed.
- B) The soil becomes much weaker when dry and frozen.
- C) The soil expands and contracts, lifting particles and dropping them a slight distance downslope.
- D) Eventually, these cause the soil and regolith to suddenly slide down the slope.

Answer: <https://biology-forums.com/index.php?topic=372964>

### Question 206

Atoms are too small to be seen with an optical microscope.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372661>

### Question 207

During metamorphism, the material undergoing deformation remains a solid.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372871>

### Question 208

The Cenozoic era is often called the "age of \_\_\_\_\_."

Answer: <https://biology-forums.com/index.php?topic=373697>

### Question 209

Mineral luster is broadly classified as either being metallic or opaque.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372667>

### Question 210

In an open system both energy and matter flow into and out of the system.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372572>

### Question 211

Removal of inorganic soil components from a soil is termed leaching.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372980>

### Question 212

In the Gulf Coast region of the United States cold fronts intense spring floods are often associated with a phenomenon known locally as "training" where thunderstorms form along a line and follow the same line for hours. This is a classic example of severe weather along a \_\_\_\_\_.

- A) cold front
- B) hurricane
- C) stationary front
- D) warm front

Answer: <https://biology-forums.com/index.php?topic=374181>

### Question 213

Cinder cones \_\_\_\_\_.

- A) are usually less than 300 meters (1000 feet) high
- B) have very steep slopes
- C) consist largely of pyroclastics
- D) all of these

Answer: <https://biology-forums.com/index.php?topic=373399>

### Question 214

Why do most sediments end up being deposited in oceans instead of other parts of the Earth?

Answer: <https://biology-forums.com/index.php?topic=372885>

### Question 215

Desert pavement is the result of \_\_\_\_\_.

- A) abrasion by windblown sand
- B) intense chemical weathering
- C) erosion by running water
- D) deflation

Answer: <https://biology-forums.com/index.php?topic=373204>

### Question 216

Which of the following is the correct definition of stream gradient?

- A) the drop in elevation of a stream divided by the distance the water travels
- B) the water pressure at the bottom of the stream divided by the stream's width
- C) the increase in discharge of a stream per unit drop in elevation
- D) the distance traveled by water in a channel times a drop in elevation

Answer: <https://biology-forums.com/index.php?topic=373056>

### Question 217

If a yellow star is moving away from us very rapidly, what color will it appear to be?

- A) greenish blue
- B) purple
- C) bluish purple
- D) reddish orange

Answer: <https://biology-forums.com/index.php?topic=374476>

### Question 218

breakwater groin seawall beach nourishment

Answer: <https://biology-forums.com/index.php?topic=373912>

### Question 219

When an active cold front overtakes a warm front, a(n) \_\_\_\_\_ front forms.

Answer: <https://biology-forums.com/index.php?topic=374219>

### Question 220

What kind of man made feature would likely lead to sand loss on a beach regardless of active margin (west coast North America) versus passive margin (east and Gulf coast of North America) setting for the coastline?

- A) building too close to sea-cliff and allowing urban runoff to seep into the rocks along the cliff
- B) construction of offshore oil platforms
- C) constructing a highway bridge over a bay mouth
- D) dam construction

Answer: <https://biology-forums.com/index.php?topic=373900>

### Question 221

Organisms that feed through a food web instead of a food chain are more likely to survive because \_\_\_\_\_.

- A) the variety of food in a web is healthier so the organisms are more likely to live a long time
- B) there is more biomass in a food web than in a food chain
- C) food webs may contain organisms from different trophic levels

D) if a member of the food web diminishes in availability, there are still many other things to eat

Answer: <https://biology-forums.com/index.php?topic=373813>

### Question 222

The largest mass extinction in the Phanerozoic occurred in the \_\_\_\_\_.

- A) Jurassic
- B) Permian
- C) Devonian
- D) Cambrian
- E) Miocene

Answer: <https://biology-forums.com/index.php?topic=373662>

### Question 223

Low latitude dry regions tend to \_\_\_\_\_.

- A) be cloud free
- B) have high cirrus clouds
- C) have high winds due to downward plunging air masses
- D) have stratocumulus clouds

Answer: <https://biology-forums.com/index.php?topic=374251>

### Question 224

Ozone is a constituent of the \_\_\_\_\_, where it protects life from ultraviolet radiation from the sun.

Answer: <https://biology-forums.com/index.php?topic=373684>

### Question 225

The deepest well that has ever been drilled on the earth is \_\_\_\_\_ deep, about 1/500th of the radius of the earth.

- A) 40.5 km
- B) 31.4 km
- C) 20.7 km
- D) 12.3 km

Answer: <https://biology-forums.com/index.php?topic=373343>

### Question 226

You buy land in the tropics on steep mountain slopes covered by large trees and deep soil. You want to build a house on the land. Which of the following building plans is a very bad idea because of the danger of triggering mass wasting?

- A) Sell the land because it will always be prone to mass wasting.
- B) Excavate the soil from the building site, install drainage systems, and backfill with gravel to prevent water accumulation.
- C) Excavate a flat bench on the slope for the house, pushing the debris to the slope below and leave a cut bank above the flat bench with grass planted on the steep slope.
- D) Terrace the slope, building on the terraces, and constructing a rock retaining wall with voids to allow drainage of water.

Answer: <https://biology-forums.com/index.php?topic=372939>

### Question 227

Solifluction is an important mass wasting process in areas of permafrost.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=373007>

### Question 228

Recrystallization during metamorphism causes grains to grow longer in the \_\_\_\_\_.

- A) direction perpendicular to the compressional stress
- B) horizontal direction
- C) direction parallel to the compressional stress
- D) direction of maximum differential stress

Answer: <https://biology-forums.com/index.php?topic=372752>

### Question 229

The steep, upper slopes of composite volcanoes are generally produced by \_\_\_\_\_.

- A) large landslides

- B) high-viscosity, low-volume silicic magmas that are erupted from the summit
- C) tilting of the summit by intrusion of high-viscosity magma directly below the summit
- D) satellite or parasitic cones that push up the top of the volcano to steep slopes

Answer: <https://biology-forums.com/index.php?topic=373404>

### Question 230

The first bacteria probably used \_\_\_\_\_ instead of water as a source of hydrogen.

- A) Fe<sub>3</sub>O<sub>4</sub>.OH
- B) OH-1
- C) H<sub>2</sub>S
- D) H<sub>2</sub>SO<sub>4</sub>
- E) HCl

Answer: <https://biology-forums.com/index.php?topic=373621>

### Question 231

The distance light travels in a year, called a(n) \_\_\_\_\_, is used by astronomers to measure stellar distances.

Answer: <https://biology-forums.com/index.php?topic=374593>

### Question 232

Which of the following best describes sets of fractures in relatively fresh bedrock, such as granite, that are roughly parallel to the land surface?

- A) hydrolytic failures
- B) sheeting fractures
- C) columnar joints
- D) thermal expansion cracks

Answer: <https://biology-forums.com/index.php?topic=372900>

### Question 233

The Sun produces energy by converting \_\_\_\_\_.

- A) hydrogen nuclei to helium nuclei
- B) oxygen nuclei to carbon dioxide
- C) oxygen nuclei to nitrogen nuclei
- D) carbon monoxide to oxygen nuclei
- E) helium nuclei to hydrogen nuclei

Answer: <https://biology-forums.com/index.php?topic=374503>

### Question 234

A Hertzsprung-Russell diagram (H-R Diagram) is a plot of \_\_\_\_\_.

- A) brightness versus temperature
- B) size versus color
- C) color versus brightness
- D) size versus brightness
- E) temperature versus color

Answer: <https://biology-forums.com/index.php?topic=374557>

### Question 235

Which of the following is not a type of fog caused by cooling of near surface air to below its dew point?

- A) advection fog
- B) frontal fog
- C) radiation fog
- D) upslope fog

Answer: <https://biology-forums.com/index.php?topic=374057>

### Question 236

The most conspicuous features on the surface of the Sun are dark areas called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374530>

### Question 237

The surface mixed zone is characterized by \_\_\_\_\_.

- A) a rapid change from warm temperatures on top to cold temperatures at a depth of about 300 meters

- B) nearly constant temperatures to a depth of about 300 meters
- C) a mixture of temperatures and densities to a depth of about 300 to 450 meters depth.
- D) high density water near the surface that rapidly decreases in density with depth
- E) low density water near the surface that rapidly increases in density with depth

Answer: <https://biology-forums.com/index.php?topic=373794>

### Question 238

If you are on a beach, you might recognize that a tsunami is approaching because \_\_\_\_\_.

- A) the water will run up on the beach farther than usual
- B) the water will withdraw from the beach farther than usual
- C) waves will gradually get closer together and approach the beach faster than normal
- D) waves will gradually get higher and higher as the tsunami approaches

Answer: <https://biology-forums.com/index.php?topic=373331>

### Question 239

Silicates most commonly form \_\_\_\_\_.

- A) under extreme pressure
- B) from cooling molten rock
- C) at the surface of the earth
- D) from other silicates

Answer: <https://biology-forums.com/index.php?topic=372626>

### Question 240

Construction of a breakwater produces the same effect as what kind of natural coastal structure?

- A) an island offshore breaking waves and trapping sand behind to form a tombolo
- B) a sea cliff producing erosion at the base of the sea cliff (i.e. breakwater)
- C) a barrier island, which forms an artificial beach at the front of the breakwater
- D) a spit, formed by sand moving by longshore drift accumulating along the opening of a tidal channel

Answer: <https://biology-forums.com/index.php?topic=373894>

### Question 241

Sediment is neither stored nor produced \_\_\_\_\_. It is primarily a zone of transport in a river system.

- A) in the drainage divide
- B) in the flood plain
- C) near the outlet
- D) in the trunk stream
- E) in the head waters

Answer: <https://biology-forums.com/index.php?topic=373049>

### Question 242

Low and narrow offshore, emergent ridges of sand that parallel the coast are called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373921>

### Question 243

Manganese nodules are an example of \_\_\_\_\_.

- A) biogenous sediment
- B) both terrigenous and biogenous sediment
- C) terrigenous sediment
- D) hydrogenous sediment

Answer: <https://biology-forums.com/index.php?topic=373741>

### Question 244

In 1980, \_\_\_\_\_ was the first Cascade Range volcano to erupt since Mt. Lassen in 1915-16.

- A) Mt. Shasta
- B) Mt. St. Helens
- C) Mt. Rainier
- D) Kilauea

Answer: <https://biology-forums.com/index.php?topic=373368>

### Question 245

Animals capable of moving independent of the ocean currents, by swimming or other means of propulsion, are called \_\_\_\_\_.

- A) benthos organisms
- B) plankton
- C) biomass
- D) nekton

Answer: <https://biology-forums.com/index.php?topic=373798>

### Question 246

The boundary between air masses having different densities is called a(n) \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374218>

### Question 247

The Rocky Mountains of western North America were produced in an orogeny called the \_\_\_\_\_.

- A) Uinta orogeny
- B) Laramide orogeny
- C) Absaroka orogeny
- D) Laurentide orogeny

Answer: <https://biology-forums.com/index.php?topic=373487>

### Question 248

If the maximum temperature for a particular day is 26°C and the minimum temperature is 14°C, the daily mean would be \_\_\_\_\_.

- A) 20°C
- B) 12°C
- C) 13°C
- D) 40°C

Answer: <https://biology-forums.com/index.php?topic=373983>

### Question 249

The concepts of "stress" and "strain" are related because \_\_\_\_\_.

- A) "strain" causes "stress"
- B) compressional "strain" causes a convergent plate boundary to form
- C) compressional "stress" causes a convergent plate boundary to form
- D) "stress" causes "strain"

Answer: <https://biology-forums.com/index.php?topic=373442>

### Question 250

Which of the following is not a trace gas?

- A) CFCs
- B) CH<sub>4</sub>
- C) C<sub>2</sub>N
- D) N<sub>2</sub>O

Answer: <https://biology-forums.com/index.php?topic=374277>

### Question 251

In the silicon-oxygen tetrahedron, there are more silicon atoms than oxygen atoms.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372674>

### Question 252

What fundamental concept states that in a horizontal sequence of conformable sedimentary strata, each higher bed is younger than the bed below it?

- A) law of superposition
- B) law of original correlation
- C) theory of superstition
- D) theory of correlative deposition

Answer: <https://biology-forums.com/index.php?topic=373531>

### Question 253

Visualize five horizontal sedimentary strata exposed in a cliff or canyon wall identified by consecutive numbers, 1 being the lowest bed and 5 being the highest. Which of the following statements concerning the strata is true?

- A) Bed 5 is the oldest.
- B) Beds 1 and 3 are older than bed 4.
- C) Bed 3 is older than beds 2 and 4.
- D) Bed 4 is older than bed 2.

Answer: <https://biology-forums.com/index.php?topic=373537>

### Question 254

Earth's primitive atmosphere evolved from gases \_\_\_\_\_.

- A) expelled from within the earth
- B) escaping from water
- C) produced by radioactive decay
- D) from the Sun
- E) collected from the nebula

Answer: <https://biology-forums.com/index.php?topic=373619>

### Question 255

What kind of unconformity is produced when tilted, older strata are eroded and buried by younger strata?

Answer: <https://biology-forums.com/index.php?topic=373583>

### Question 256

Given enough time, what factor is typically most important in soil formation?

- A) months of snow cover
- B) climate
- C) slope direction
- D) bedrock type

Answer: <https://biology-forums.com/index.php?topic=372914>

### Question 257

Many metals are extracted from ores that contain sulfide minerals.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372680>

### Question 258

At the start of the Mesozoic, the climate was \_\_\_\_\_.

- A) very warm
- B) very cold
- C) humid
- D) dry
- E) rapidly changing

Answer: <https://biology-forums.com/index.php?topic=373666>

### Question 259

Relatively small bodies which generally orbit between Mars and Jupiter are called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374459>

### Question 260

If you were to examine the profile of a typical river, you would probably find that the gradient is \_\_\_\_\_.

- A) steepest near the mouth
- B) the same at both the head and mouth
- C) steepest near the head
- D) none of these

Answer: <https://biology-forums.com/index.php?topic=373060>

### Question 261

The higher the temperature, the more likely it is that a rock will deform \_\_\_\_\_.

- A) brittly
- B) elastically
- C) ductilely
- D) shearingly

Answer: <https://biology-forums.com/index.php?topic=373448>

### Question 262

Which of the following is not evidence collected by the Glomar Challenger in support of the Plate Tectonic model?

- A) Continental crust is typically several hundred million years old or older.
- B) Sediments get thicker with increasing distance from the ridges.
- C) Oceanic crust is less than 180 million years old.
- D) Fossils increase in age with increasing distance from the ridges.

Answer: <https://biology-forums.com/index.php?topic=373273>

### Question 263

\_\_\_\_\_ is the rigid, cool outer approximately 100 km of the earth.

Answer: <https://biology-forums.com/index.php?topic=373362>

### Question 264

Earlier we discussed the concept of isostasy, where lower density rocks rise higher than higher density rocks. How is the variation of water depth at spreading centers (ridges) controlled by isostasy?

- A) Oceanic ridges are sites where the lithosphere is carried into the mantle on one side (aka subduction zones), and the volcanos along these margins produce the ridge by buildup of lower density crust.
- B) It has nothing to do with isostasy; the areas are simply high because there are chains of active volcanos along the ridge crest, producing the topography.
- C) The lithosphere cools as it moves away from the ridge axis by sea floor spreading, and cooler rocks are lower density, so the sea floor gets deeper as the lithosphere gets more dense.
- D) Volcanic rocks are lighter than other rocks, and so the abundant volcanic rocks at the ridges are lower density features that produce the seafloor topography.

Answer: <https://biology-forums.com/index.php?topic=373736>

### Question 265

Which one of the following is a landform created by wave erosion?

- A) sea arch
- B) spit
- C) tombolo
- D) estuary

Answer: <https://biology-forums.com/index.php?topic=373874>

### Question 266

Silts and clays are commonly deposited in lakes, lagoons, swamps and marine environments because \_\_\_\_\_.

- A) those settings are more acidic
- B) those settings have relatively still water
- C) those settings are more basic
- D) those settings have highly varied activities and multiple inlets for water

Answer: <https://biology-forums.com/index.php?topic=372724>

### Question 267

The large size of insects and amphibians during the Pennsylvanian period has been suggested to be due to \_\_\_\_\_.

- A) an excess of oxygen during that time
- B) a decrease in methane in the atmosphere during that time
- C) a lack of predators for early land forms
- D) an excess of sunlight and water during that time
- E) the emergence of a super continent that allowed greater areas for animals to evolve

Answer: <https://biology-forums.com/index.php?topic=373623>

### Question 268

Different periods of the geologic time scale are different in length. Why?

- A) Early geologists made mistakes, but it was easier to retain the terminology in the time scale.

- B) The geologists who developed the time scale did not care about absolute ages.  
C) The time scale was developed ad hoc, as a relative time scale based on rocks and fossil succession with no reference to absolute time when it was developed.

D) None of the above

Answer: <https://biology-forums.com/index.php?topic=373575>

### Question 269

\_\_\_\_\_ makes up the largest part of the volume of the earth.

Answer: <https://biology-forums.com/index.php?topic=373361>

### Question 270

Deposits of which of the following minerals would never be considered an ore?

- A) hematite  
B) chalcophyrite  
C) galena  
D) quartz

Answer: <https://biology-forums.com/index.php?topic=372643>

### Question 271

Which of the following is not a form of artificial flood control?

- A) forced levee breaks to deflect flood waters  
B) channel cutoff to form oxbow lakes during a flood  
C) levee construction  
D) dam construction

Answer: <https://biology-forums.com/index.php?topic=373097>

### Question 272

Which one of the following statements is correct?

- A) Sea level rises when water is added to the oceans through increased rainfall and increased inflow from rivers.  
B) Sea level drops when evaporation rates increase over the oceans and when this extra atmospheric moisture falls on land as rain.  
C) Sea level rises when water is stored in expanding ice sheets and continental glaciers.  
D) Sea level drops when water is stored in expanding ice sheets and continental glaciers.

Answer: <https://biology-forums.com/index.php?topic=373045>

### Question 273

The earliest astronomical records appear to have been made by the ancient Chinese, Egyptians, and Babylonians in order to \_\_\_\_\_.

- A) predict future positions of celestial objects to identify good or "lucky" dates for various important events  
B) predict the best dates for traveling, particularly by boat, and where to build temples  
C) determine who should be sacrificed or promoted based on heavenly signs at their birth  
D) determine when to plant crops or hunt animals based on seasonal changes

Answer: <https://biology-forums.com/index.php?topic=374327>

### Question 274

An unconformity is a buried \_\_\_\_\_.

- A) surface of erosion separating younger strata above from older strata below  
B) fault or fracture with younger strata above and older strata below  
C) fault or fracture with older rocks above and younger rocks below  
D) surface of erosion with older strata above and younger strata below

Answer: <https://biology-forums.com/index.php?topic=373529>

### Question 275

In the last few years improvements in technology have allowed geologists to date single grains of some minerals in rocks. A geologist separates 5 grains of the mineral zircon, which can be dated by the Uranium-lead method, and the crystal retains parent and daughter through weathering, erosion, and deposition. Thus, dating each mineral grain only gives the age of the source rock that was eroded, to produce that sand, from which the zircon grain is derived. The 5 grains yield ages of 160, 110, 2020, 66, and 162 million years. What do these ages tell you about the age of the sedimentary strata?

- A) They are between 160 and 162 million years.  
B) They are Precambrian rocks, older than 2020 million years.  
C) They are younger than 66 million years.  
D) There are no age constraints from this data; sedimentary rocks cannot be dated by geochronology.

Answer: <https://biology-forums.com/index.php?topic=373576>

### Question 276

Which process of mass wasting occurs primarily in permafrost regions?

Answer: <https://biology-forums.com/index.php?topic=373036>

### Question 277

Compare and contrast the Ptolemaic System with the Copernican System. Are there any similarities? What are the key differences? How did the prevailing ideas or perspectives of society affect each of these explanations?

Answer: <https://biology-forums.com/index.php?topic=374393>

### Question 278

All of geologic time prior to the beginning of the Paleozoic era is commonly referred to as the \_\_\_\_\_ era.

Answer: <https://biology-forums.com/index.php?topic=373594>

### Question 279

Assume that water filling a crack in a rock undergoes cycles of freezing and melting. Which of the following statement is true?

- A) Water shrinks as it melts, causing the crack walls to be pulled closer together.
- B) Water shrinks as it freezes, causing the crack walls to be drawn closer together.
- C) Water expands as it freezes, causing the crack walls to be pushed apart.
- D) Water expands as it melts, causing the crack walls to be pushed apart.

Answer: <https://biology-forums.com/index.php?topic=372894>

### Question 280

conduction scattering convection radiation

Answer: <https://biology-forums.com/index.php?topic=373993>

### Question 281

Irregular heating of the air can produce thermals, which are \_\_\_\_\_.

- A) pockets of cold air that sink
- B) pockets of warm air that rise
- C) pockets of warm air that sink
- D) pockets of cold air that rise

Answer: <https://biology-forums.com/index.php?topic=374033>

### Question 282

This cloud sometimes produces "mare's tails."

- A) cirrus
- B) cumulonimbus
- C) altostratus
- D) cirrostratus

Answer: <https://biology-forums.com/index.php?topic=374051>

### Question 283

What is the age of the Earth accepted by most scientists today?

- A) 4.5 billion years
- B) 6.4 billion years
- C) 6.4 million years
- D) 4.5 million years

Answer: <https://biology-forums.com/index.php?topic=373567>

### Question 284

The main process that links water in the atmosphere with water on the Earth's surface is \_\_\_\_\_.

- A) transpiration
- B) condensation
- C) wind
- D) evaporation
- E) infiltration

Answer: <https://biology-forums.com/index.php?topic=373042>

### Question 285

Which one of the following would most likely be covered with thick turbidite layers?

- A) deep-sea fan at the base of a continental slope
- B) upper part of a steep, narrow, submarine canyon
- C) axial rift zone of an active mid-ocean spreading center
- D) ocean floor around a conical-shaped seamount

Answer: <https://biology-forums.com/index.php?topic=373713>

### Question 286

Milankovitch cycles are used to explain the cycles of cold and warm climates that characterized the Ice Ages based on \_\_\_\_\_.

- A) variations in the earth's orbit about the sun and precession of the earth's axis
- B) plate tectonics and sea level rise
- C) solar flares and variations in the moon's orbit over time
- D) evolution of plants and animals and human impact

Answer: <https://biology-forums.com/index.php?topic=373191>

### Question 287

A good example of a present-day, passive continental margin is the \_\_\_\_\_.

- A) east coast of the Japanese Islands
- B) east coast of North America
- C) west coast of South America
- D) north flank of the East Pacific Rise

Answer: <https://biology-forums.com/index.php?topic=373470>

### Question 288

Jupiter's moon Io is thought to be the volcanically active world in our solar system. What is the inferred source of heat?

- A) Io has a strong magnetic field as does Jupiter, so as Io moves through Jupiter's magnetic field, large electrical currents are generated, which heat the planet.
- B) Io is close to Jupiter, and the strong tidal forces on planet produce frictional heating of the planet.
- C) It is a mystery; it should be very cold because it is the same size as the moon but far from the sun.
- D) Very high abundances of radioactive elements have been detected on the planet.

Answer: <https://biology-forums.com/index.php?topic=374430>

### Question 289

Fast moving currents of air found near the top of the troposphere are called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374158>

### Question 290

Fracture zone associated with transform boundaries are \_\_\_\_\_.

- A) active faults
- B) inactive faults
- C) topographic markers of where Pangaea originally broke apart
- D) fractures in the seafloor that did not become faults

Answer: <https://biology-forums.com/index.php?topic=373267>

### Question 291

A porphyritic texture where large crystals are embedded in a matrix of small crystal may form when \_\_\_\_\_.

- A) a magma that has partially crystallized slowly moves to a different location where it then cools rapidly.
- B) climate change causes crystals to cool at different rates
- C) crystals of different compositions cool at different rates
- D) crystals of different compositions grow to different sizes

Answer: <https://biology-forums.com/index.php?topic=372705>

### Question 292

Where are the deepest parts of the oceans?

- A) in rift valleys at sea floor spreading center
- B) in trenches
- C) in the abyssal plain

D) along the base of the continental slope

Answer: <https://biology-forums.com/index.php?topic=373722>

### Question 293

Water plays an important role in sculpting the landscape of continents because \_\_\_\_\_.

- A) water contributes to plant and animal life that strongly affects the landscape
- B) water is a major cause of erosion on land
- C) water deposits sediments in areas like the Grand Canyon and Yellowstone National Park where the landscape is changing rapidly
- D) water moves through streams that are a major cause of mass wasting
- E) ground water causes sinkholes and domes that change the landscape rapidly

Answer: <https://biology-forums.com/index.php?topic=373043>

### Question 294

Trilobites brachiopods fish dinosaurs

Answer: <https://biology-forums.com/index.php?topic=373676>

### Question 295

Continents are, on average, about 2 km higher than sea level.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372568>

### Question 296

The solum or true soil includes all horizons above the C-horizon.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372981>

### Question 297

How did the Greeks estimate the size of the earth?

- A) They used the height of sailing ships as they sailed over the horizon to estimate curvature of the earth, which allowed estimation of the size of the earth.
- B) They didn't; everyone thought the world was flat until Columbus' time.
- C) They measured the altitude of mountains in Greece, then used the distance they were lost from sight to estimate the curvature of the earth, which allowed estimation of the size of the earth.
- D) They measured the angle of the sun above the horizon at midday in two places with different latitude and used the angle to estimate the circumference of the earth.

Answer: <https://biology-forums.com/index.php?topic=374325>

### Question 298

The loess deposited in many parts of the Midwest \_\_\_\_\_.

- A) was once glacial outwash deposits
- B) had its source in desert regions
- C) is in the form of transverse dunes
- D) is uniformly thick

Answer: <https://biology-forums.com/index.php?topic=373206>

### Question 299

Continental crust is formed by \_\_\_\_\_.

- A) the original planetary accretion that also led to the formation of the earth's other layers
- B) partial melting of mantle rocks
- C) plumes of hot igneous material that rise from the core-mantle boundary to form hot spots
- D) melting and differentiation of oceanic crust at subduction zones
- E) recycling of material in giant lava lakes in the early earth history

Answer: <https://biology-forums.com/index.php?topic=373630>

### Question 300

Rhyolite is the fine-grained equivalent of this igneous rock.

- A) diorite

- B) granite
- C) basalt
- D) andesite

Answer: <https://biology-forums.com/index.php?topic=372709>

### Question 301

\_\_\_\_\_ denotes the downslope movement of soils and regolith.

Answer: <https://biology-forums.com/index.php?topic=373031>

### Question 302

Which fate of the universe is currently favored: Big Crunch or Big Chill?

Answer: <https://biology-forums.com/index.php?topic=374602>

### Question 303

Concerning the distribution of land and water, which of the following statements is true?

- A) The Northern Hemisphere has much more water surface than the Southern Hemisphere.
- B) The Southern Hemisphere has much more water surface than the Northern Hemisphere.
- C) The percentage of land and water is about the same in both the Northern and Southern Hemispheres.
- D) None of the above is true.

Answer: <https://biology-forums.com/index.php?topic=373705>

### Question 304

A \_\_\_\_\_ is a near surface, intrusive igneous rock body that results from local inflation of a horizontal sill.

- A) batholith
- B) laccolith
- C) volcanic neck
- D) dike

Answer: <https://biology-forums.com/index.php?topic=373422>

### Question 305

Which one of the following statements is correct?

- A) P waves travel through solids; S waves do not.
- B) P and S waves travel through solids and P waves travel through liquids.
- C) P and S waves travel through liquids, but P waves do not travel through solids.
- D) P and S waves travel through liquids, but S waves do not travel through solids.

Answer: <https://biology-forums.com/index.php?topic=373308>

### Question 306

Why do the planets "drift" east relative to the stars and then move west for periods of time?

- A) They are moving in large elliptical orbits, so when observed from Earth, their motion changes depending on whether they are near or far from the sun at a given time.
- B) They are moving in separate orbits around the sun as it goes around the earth, producing the periodic backtracking.
- C) They are moving in the same rotation sense as the earth around the sun, but as the earth moves faster (or slower, depending on the planet) the motion appears to be backwards.
- D) They don't move, they stay fixed relative to the stars.

Answer: <https://biology-forums.com/index.php?topic=374323>

### Question 307

A mass wasting process that involves rapid down-slope movement of debris aided by a cushion of air is called \_\_\_\_\_.

- A) a slump
- B) a rock avalanche
- C) a rock fall
- D) a rock slide

Answer: <https://biology-forums.com/index.php?topic=372945>

### Question 308

The San Andreas Fault in California and the Alpine Fault in New Zealand are examples of \_\_\_\_\_.

- A) strike-slip faults
- B) thrust faults

- C) oblique-slip normal faults
- D) normal faults

Answer: <https://biology-forums.com/index.php?topic=373455>

### Question 309

Quartz weathers readily to aluminum-rich clay minerals.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372972>

### Question 310

The physical property denoting a mineral's tendency to crack along parallel, planar surfaces is known as \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=372686>

### Question 311

Ice Age glaciers had many indirect effects. Which one of the following was not such an effect?

- A) sea level fluctuations
- B) changes in some river courses
- C) formation of mountains
- D) extinction of some organisms

Answer: <https://biology-forums.com/index.php?topic=373188>

### Question 312

Which of the following is not a process that removes dissolved components from seawater?

- A) evaporation
- B) hydrothermal activity
- C) chemical precipitation
- D) organisms building hard parts
- E) All of the above remove components from seawater.

Answer: <https://biology-forums.com/index.php?topic=373782>

### Question 313

What is the dominant factor in the life of a star?

- A) gravity
- B) energy
- C) temperature
- D) composition
- E) size

Answer: <https://biology-forums.com/index.php?topic=374568>

### Question 314

rotation revolution precession declination

Answer: <https://biology-forums.com/index.php?topic=374372>

### Question 315

Productivity in temperate oceans is determined by \_\_\_\_\_.

- A) seasons
- B) ocean currents
- C) latitude
- D) all of these

Answer: <https://biology-forums.com/index.php?topic=373807>

### Question 316

What energy resource is present in the oceans with far more energy reserves than conventional oil and gas?

Answer: <https://biology-forums.com/index.php?topic=373774>

### Question 317

In the canyonlands of Utah and Arizona, canyon walls often support "hanging gardens" in which plants cling to sandstone cliffs and these hanging gardens are typically along shale beds in the sandstone. These areas are deserts, so what might explain these features?

- A) The shales form aquitards in the sandstone aquifer, trapping groundwater along the shale horizons that helps aid plant growth.  
B) The shales are more fractured than the sandstones so the plants have an easier time starting in the shale.  
C) The shales form better soils than the sand, so the plants grow there.  
D) The shales hold the water better than the sandstone, so plants preferentially grow in them.

Answer: <https://biology-forums.com/index.php?topic=373105>

### Question 318

Which of the following would not be associated with stable atmospheric conditions?

- A) temperature inversion  
B) afternoon thunder showers  
C) widespread fog  
D) dreary overcast with light drizzle

Answer: <https://biology-forums.com/index.php?topic=374037>

### Question 319

Joe Geologist discovers a vein made up primarily of quartz but also containing significant amounts of pyrite as well as chalcopyrite. He knows better than to fall for fool's gold, and decides to ignore the vein. Did he make the right decision? Explain.

Answer: <https://biology-forums.com/index.php?topic=372692>

### Question 320

An artesian well is one in which \_\_\_\_\_.

- A) pressurized groundwater rises from a deep, unsaturated aquifer  
B) water rises above the top of the aquifer without any pumping  
C) the water is warm, fairly saline, and recharged by an affluent stream  
D) the well is horizontal and the water table is perched

Answer: <https://biology-forums.com/index.php?topic=373106>

### Question 321

Assume that man's recorded history can be stretched back to 4600 years before the present. This is approximately what fraction of geologic time?

- A) one billionth  
B) one ten-thousandth  
C) one millionth  
D) one hundred-thousandth

Answer: <https://biology-forums.com/index.php?topic=373568>

### Question 322

In which area would weathering by frost wedging probably be most effective?

- A) in moist, temperate climates  
B) in cool high desert areas  
C) in a moist, tropical forest  
D) where the subsoil is permanently frozen

Answer: <https://biology-forums.com/index.php?topic=372907>

### Question 323

Alpha Centauri is a famous star because it is one of the closest stars to earth (other than the sun of course). Where would you look in the night sky for Alpha Centauri?

- A) Look for Hydra, then to the right for Hercules, and it will be half way between.  
B) Look for the brightest star in the constellation Centaurus.  
C) Look for the second brightest star in the constellation Alpha.  
D) RA 15hr 30min; D 56 degrees

Answer: <https://biology-forums.com/index.php?topic=374349>

### Question 324

An important geochronometer is the decay of  $^{147}\text{Sm}$  to  $^{143}\text{Nd}$ . What type of radioactive decay is involved in this parent-daughter pair?

- A) alpha decay  
B) electron capture  
C) beta decay  
D) a positron capture

Answer: <https://biology-forums.com/index.php?topic=373562>

### Question 325

The law of universal gravitation was formulated by \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374376>

### Question 326

Two cities are located at the same latitude (40°). City A is in the Southern Hemisphere and City B is in the Northern Hemisphere. Assume the two cities reflect the general characteristics of the hemispheres where they are located. Which city should have the warmest winter temperatures?

- A) City A
- B) City B
- C) Both cities should have nearly identical winter temperatures.
- D) More information is required to answer the question.

Answer: <https://biology-forums.com/index.php?topic=373986>

### Question 327

The Spitzer space telescope is \_\_\_\_\_.

- A) a thermal infrared detecting telescope
- B) the next generation gamma ray detecting satellite
- C) a planned replacement telescope for Hubble
- D) a new X-ray detecting observatory

Answer: <https://biology-forums.com/index.php?topic=374496>

### Question 328

Which type of bacteria thrive in environments that lack free oxygen?

- A) aerobic
- B) photosynthetic
- C) foraminifera
- D) anaerobic
- E) placental

Answer: <https://biology-forums.com/index.php?topic=373657>

### Question 329

Which of the following is not a planet?

- A) Neptune
- B) Europa
- C) Saturn
- D) Venus

Answer: <https://biology-forums.com/index.php?topic=372494>

### Question 330

The process by which water vapor changes directly to a solid is called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374079>

### Question 331

Extensive deposits of \_\_\_\_\_ ore are found worldwide in Precambrian rocks.

Answer: <https://biology-forums.com/index.php?topic=373682>

### Question 332

A star in which light cannot escape because of the immense gravitational pull is called a(n) \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374597>

### Question 333

Every metamorphic rock has a parent rock from which it formed.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372870>

### Question 334

At a bend in a river, the main erosion is \_\_\_\_\_.

- A) on the inside of the bend
- B) at an oxbow lake
- C) on the outside of the bend
- D) both outside and inside the bend

Answer: <https://biology-forums.com/index.php?topic=373073>

### Question 335

Which of the following poses the greatest risk of massive loss of life and property along its path?

- A) earthflow
- B) rock avalanche
- C) slump
- D) rock fall

Answer: <https://biology-forums.com/index.php?topic=372958>

### Question 336

An instrument that measures air pressure using a partially evacuated chamber is called a(n) \_\_\_\_\_ barometer.

Answer: <https://biology-forums.com/index.php?topic=374151>

### Question 337

Given an environmental lapse rate of 5°C/1000 m and a dry adiabatic of 10°C, what would be the temperature of air at an elevation of 2000 m if the surface air temperature is 25°C?

- A) 5°C
- B) 10°C
- C) 20°C
- D) 25°C
- E) 15°C

Answer: <https://biology-forums.com/index.php?topic=374041>

### Question 338

Which science is not used within the Earth sciences?

- A) Mathematics
- B) Biology
- C) Physics
- D) Chemistry
- E) None of the above; Earth Science makes use of all of these sciences.

Answer: <https://biology-forums.com/index.php?topic=372478>

### Question 339

Where was the El Niño phenomena first recognized?

- A) the Caribbean region
- B) Peru and Ecuador
- C) Central America
- D) California

Answer: <https://biology-forums.com/index.php?topic=374143>

### Question 340

\_\_\_\_\_ refers to the mass of all living organisms on Earth.

Answer: <https://biology-forums.com/index.php?topic=373831>

### Question 341

Who is credited with formulating the doctrine of uniformitarianism?

- A) Lyell
- B) Aristotle
- C) Playfair
- D) Hutton

Answer: <https://biology-forums.com/index.php?topic=373515>

### Question 342

What is the difference between the coastline and shoreline?

- A) The coast is the landward limit of ocean-related landforms, the coastline is the line that separates the coast from the shore, and the shoreline is the ephemeral line that marks the interface between land and sea.
- B) The shoreline is the landward limit of ocean-related landforms, and the coastline is the interface between land and sea.
- C) The coastline is the landward limit of ocean-related landforms, and the shoreline is the ephemeral line that marks the interface between land and sea.
- D) The shoreline is the low-tide line, and the coastline is the high-tide line.

Answer: <https://biology-forums.com/index.php?topic=373853>

### Question 343

The San Andreas fault zone in California is an example of \_\_\_\_\_.

- A) a transform plate boundary
- B) an ocean-continent collision
- C) a divergent plate boundary
- D) a continental rift

Answer: <https://biology-forums.com/index.php?topic=373268>

### Question 344

Metals are good conductors of electricity because their protons can roam freely throughout the material.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372665>

### Question 345

One significant difference between an ionic bond, where electrons are taken from one atom and added to another atom, and a covalent or metallic bond, where electrons are shared, is \_\_\_\_\_.

- A) ionic bonds make a material more malleable than covalent and metallic bonds
- B) ionic bonds produce ions but covalent and metallic bonds do not produce ions
- C) ionic bonds are stronger than covalent or metallic bonds
- D) ionic bonds do not result in the attraction of oppositely charged atoms, but covalent and metallic bonds do

Answer: <https://biology-forums.com/index.php?topic=372602>

### Question 346

Glacial sediments or tills are characterized by \_\_\_\_\_.

- A) striations
- B) wide variations in sizes of clasts
- C) cirques, arêtes, and hanging valleys
- D) moraines and glacial flour
- E) very fine-grained, highly polished clasts

Answer: <https://biology-forums.com/index.php?topic=373186>

### Question 347

Which one of the following concerning artesian wells is not true?

- A) When the well penetrates the aquifer, the water rises to the bottom of the aquitard above the aquifer.
- B) The well penetrates an aquifer overlain by an aquitard.
- C) The aquifer is generally inclined, and it is saturated to an elevation above the point where the well penetrates the aquifer.
- D) The well penetrates an aquifer underlain by an impermeable bed.

Answer: <https://biology-forums.com/index.php?topic=373108>

### Question 348

The most common group of rock forming minerals is \_\_\_\_\_.

- A) carbonate
- B) the halides
- C) the sulfates
- D) the silicates

Answer: <https://biology-forums.com/index.php?topic=372623>

### Question 349

We now live in the \_\_\_\_\_ era.

Answer: <https://biology-forums.com/index.php?topic=373593>

### Question 350

Wood floats in water, 1 gram is defined as the mass of 1 cubic centimeter of water, a cubic centimeter of quartz weighs ~2.65 g and a cubic centimeter of galena weighs about 7.5 g. The density of these materials from highest to lowest is \_\_\_\_\_.

- A) water, wood, quartz, galena
- B) galena, quartz, wood, water
- C) galena, quartz, water, wood
- D) wood, quartz, galena, water

Answer: <https://biology-forums.com/index.php?topic=372609>

### Question 351

In a given area where you have little knowledge of the local geology (rocks types, fossils, etc.), what type of unconformity would be the most difficult to recognize in an exposed sequence of rocks? Why?

Answer: <https://biology-forums.com/index.php?topic=373596>

### Question 352

Would most features of alpine glaciation be preserved in the geologic record? Why or why not? What about continental glaciation?

Answer: <https://biology-forums.com/index.php?topic=373223>

### Question 353

Crevasses (deep fractures or cracks) form because \_\_\_\_\_.

- A) as the glacier moves over irregular topography, cracks can form anywhere in the glacier but they are called "crevasses" only if they are near the surface
- B) there is not always the same amount of ice available in all areas so cracks form when the ice tries to move and fill in empty parts of the glacier
- C) not all of the ice in a glacier moves downhill at the same rate in the glacier
- D) as the glacier moves over irregular topography, the brittle upper layer or zone of fracture is subject to tension and cracks above the ductile layer
- E) as the glacier moves over irregular topography the bottom of the glacier (known as the zone of fracture) cracks and the cracks propagate upward to the surface of the glacier

Answer: <https://biology-forums.com/index.php?topic=373172>

### Question 354

Two cities are located at the same latitude (40°). City A is in the Southern Hemisphere and City B is in the Northern Hemisphere. Assume the two cities reflect the general characteristics of the hemispheres where they are located. Which city should have the largest annual temperature range?

- A) City A
- B) City B
- C) Both cities should have nearly identical temperatures.
- D) More information is required to answer the question.

Answer: <https://biology-forums.com/index.php?topic=373984>

### Question 355

The era known as the "age of mammals" is the \_\_\_\_\_ era.

- A) Paleozoic
- B) Precambrian
- C) Mesozoic
- D) Cenozoic

Answer: <https://biology-forums.com/index.php?topic=373574>

### Question 356

The lithosphere and asthenosphere are layers of Earth defined by their composition.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372557>

### Question 357

Has the Big Bang hypothesis been successfully tested?

Answer: <https://biology-forums.com/index.php?topic=374601>

### Question 358

Which convection model suggests "sluggish flow" in the lower mantle?

- A) slab pull
- B) whole mantle
- C) layer cake
- D) ridge push

Answer: <https://biology-forums.com/index.php?topic=373280>

### Question 359

Mount Pelée on Martinique is an example of a \_\_\_\_\_.

- A) composite volcano
- B) lava dome
- C) shield volcano
- D) cinder cone

Answer: <https://biology-forums.com/index.php?topic=373403>

### Question 360

Which of the following is a mineral as defined by a geologist?

- A) water
- B) sugar
- C) boulder
- D) salt
- E) concrete

Answer: <https://biology-forums.com/index.php?topic=372585>

### Question 361

By international agreement, lesser tropical cyclones are given different names based on the strength of their winds. When a cyclone's strongest winds do not exceed 61 kilometers (38 miles) per hour, it is called a(n) \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374220>

### Question 362

The most obvious evidence of a Plate boundary where two plates move apart is(are) \_\_\_\_\_.

- A) strike-slip faults on the sea floor
- B) earthquakes
- C) upwelling of hot material from the mantle
- D) mountain building along the plate boundary

Answer: <https://biology-forums.com/index.php?topic=373247>

### Question 363

The primary goal of Earth Science is \_\_\_\_\_.

- A) to protect the environment
- B) to identify the patterns in nature and use that information to predict the future
- C) to develop things that will benefit mankind
- D) to locate resources

Answer: <https://biology-forums.com/index.php?topic=372490>

### Question 364

The variations in temperature are less extreme in the Southern Hemisphere than in the Northern Hemisphere because \_\_\_\_\_.

- A) all of the cold air in the Southern Hemisphere is concentrated over Antarctica, but there is not a large land mass at the north pole
- B) there is more water in the Southern Hemisphere
- C) the Northern Hemisphere is more mountainous
- D) there is more land in the Southern Hemisphere
- E) the hole in the ozone allows more solar radiation to warm the Southern Hemisphere

Answer: <https://biology-forums.com/index.php?topic=373987>

### Question 365

crust biosphere core mantle

Answer: <https://biology-forums.com/index.php?topic=373352>

### Question 366

Why is the Moment magnitude scale favored over the Richter magnitude scale?

- A) The Moment magnitude measures the total energy released by an earthquake.  
B) The moment magnitude carries the calculated values out to more decimal places so it is more precise.  
C) The Richter magnitude is based on older models of seismographs that are no longer used to record earthquakes.  
D) The Richter magnitude always underestimates the amount of energy released by an earthquake.

Answer: <https://biology-forums.com/index.php?topic=373323>

### Question 367

\_\_\_\_\_ is an erosional contact between tilted, older strata below and horizontal, younger strata above.

- A) Cross cutting  
B) A disconformity  
C) An angular unconformity  
D) Inverse bedding

Answer: <https://biology-forums.com/index.php?topic=373533>

### Question 368

What term describes a groundwater system in which water in a well rises above the top of the aquifer without use of a pump?

Answer: <https://biology-forums.com/index.php?topic=373137>

### Question 369

This air mass may produce an occasional "nor'easter" in the winter.

- A) mP  
B) cP  
C) mT  
D) cT

Answer: <https://biology-forums.com/index.php?topic=374172>

### Question 370

The surface features of \_\_\_\_\_ are known only through satellite radar mapping.

- A) Mars  
B) Mercury  
C) Jupiter  
D) Venus

Answer: <https://biology-forums.com/index.php?topic=374416>

### Question 371

Which one of the following is an important fundamental assumption underlying the plate tectonic theory?

- A) Radioactive decay slows down at the extreme pressures of the inner core.  
B) Earth's magnetic field originates in the outer core.  
C) Earth's ocean basins are very old and stable features.  
D) Earth's surface area has been essentially constant over time.

Answer: <https://biology-forums.com/index.php?topic=373266>

### Question 372

Why did Galileo's observation that Venus showed phases like the moon indicate that the geocentric theory of the solar system was not possible?

- A) It was not an important observation supporting heliocentric theory, but it did work out to be consistent with the theory.  
B) It showed that Venus had to have a highly elliptical orbit that nearly crosses earth's to produce phases like the moon.  
C) It demonstrated that Venus orbited earth like the moon, but both had to orbit the sun.  
D) It demonstrated that Venus could not be in orbit around earth between earth and the sun because it shows "full" and "new" phases that would never occur with geocentric geometry.

Answer: <https://biology-forums.com/index.php?topic=374344>

### Question 373

The \_\_\_\_\_ explains how our solar system probably formed from a giant cloud of gases and dispersed solid particles.

- A) protogalactic theory  
B) nebular theory  
C) planetary compression theory  
D) extrastellar solar hypothesis

Answer: <https://biology-forums.com/index.php?topic=372493>

### Question 374

Most \_\_\_\_\_ rocks are devoid of fossils, which hinders correlation of rocks.

- A) Mesozoic
- B) Paleozoic
- C) Precambrian
- D) Mesozoic and Cenozoic
- E) Cenozoic

Answer: <https://biology-forums.com/index.php?topic=373636>

### Question 375

The Himalayan Mountains and adjacent Tibet are a mountain system formed by \_\_\_\_\_.

- A) continental collision
- B) subduction
- C) back-arc contraction
- D) sea floor spreading

Answer: <https://biology-forums.com/index.php?topic=372518>

### Question 376

Fetch refers to \_\_\_\_\_.

- A) ocean currents moving parallel to the beach
- B) the beachfront area where rapid erosion is taking place
- C) the rotational movements of water particles beneath a passing surface wave
- D) a large expanse of open water over which the wind blows and generates waves

Answer: <https://biology-forums.com/index.php?topic=373860>

### Question 377

The belt of constellations through which all the planets move is called the \_\_\_\_\_.

- A) Milky Way
- B) Parallax
- C) Cosmos
- D) Planetoid
- E) Zodiac

Answer: <https://biology-forums.com/index.php?topic=374345>

### Question 378

\_\_\_\_\_ is the mass of water vapor in a unit of air compared to the remaining mass of dry air.

Answer: <https://biology-forums.com/index.php?topic=374080>

### Question 379

A maritime Polar (mP) air mass is \_\_\_\_\_.

- A) warm and dry
- B) warm and humid
- C) cold and humid
- D) cold and dry

Answer: <https://biology-forums.com/index.php?topic=374170>

### Question 380

Scientists have found evidence that life existed at least 3.5 billion years ago \_\_\_\_\_.

- A) in several locations around the world
- B) in Kenya
- C) in northern Siberia
- D) throughout North and South America
- E) on the Gulf Coast

Answer: <https://biology-forums.com/index.php?topic=373654>

### Question 381

In what plate tectonic setting are magmas generated predominantly by fluids fluxing the melting process by decreasing melting temperature?

- A) transform faults

- B) spreading ridges
- C) convergent plate margins
- D) hot spots

Answer: <https://biology-forums.com/index.php?topic=373430>

### Question 382

The frequency of sunspots and related solar activity is \_\_\_\_\_.

- A) an 11 year cycle
- B) a 7 year cycle
- C) not a regular cycle
- D) a 22 year cycle

Answer: <https://biology-forums.com/index.php?topic=374512>

### Question 383

A star with the same color as another but 100 times brighter must be \_\_\_\_\_.

- A) 100 times colder
- B) 100 times hotter
- C) 100 times closer
- D) 100 times larger
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=374564>

### Question 384

Which type of soil would typically be the richest soil?

- A) upland slope
- B) transported
- C) residual
- D) desert

Answer: <https://biology-forums.com/index.php?topic=372915>

### Question 385

The \_\_\_\_\_ refers to the water-dominated parts of the earth.

- A) biosphere
- B) atmosphere
- C) hydrosphere
- D) geosphere

Answer: <https://biology-forums.com/index.php?topic=372502>

### Question 386

Which of the following best describes Shiprock, a famous volcanic feature in New Mexico?

- A) a very recently active, basaltic cinder cone
- B) an extinct, massive, rhyolitic shield volcano
- C) an extinct, highly symmetrical, composite volcanic cone
- D) the eroded remains of a volcanic pipe and radiating dikes

Answer: <https://biology-forums.com/index.php?topic=373414>

### Question 387

What is the most abundant, naturally produced, weak acid involved in chemical weathering and soil formation?

Answer: <https://biology-forums.com/index.php?topic=373011>

### Question 388

Mt. Rainier in Washington State is often thought to be the most hazardous volcano in the lower 48 states of the United States because \_\_\_\_\_.

- A) large amounts of glacial ice on the mountain could be melted by even a small eruption, potentially generating dangerous lahars that would travel rapidly down river valleys to heavily populated areas
- B) it is close enough to Seattle and Tacoma, Washington that these cities could be destroyed in a pyroclastic flow
- C) the volcano is close enough to Seattle and Tacoma, Washington that a large explosive eruption could bury the cities in a large rock avalanche similar to the Mt. St. Helens eruption
- D) The statement is false; the volcano poses little hazard to humans except for the few who live close to the volcano.

Answer: <https://biology-forums.com/index.php?topic=373413>

### Question 389

When organisms living in seawater grow shells, the ratio between the isotopes of oxygen ( $^{18}\text{O}/^{16}\text{O}$ ) trapped in their shell is dependent on the sea temperature. Why might geologists collect these sea shells from deep-sea sediments that are Pleistocene in age and measure their oxygen isotope ratios?

- A) They want to know how metabolism of the organism affects the oxygen isotope ratios.
- B) The organisms live in the photic zone, and so photosynthesis must be the main factor in the oxygen content.
- C) They might want to know how cold the water was at the seafloor in the past.
- D) The organisms live near the surface, so their oxygen isotope ratios record surface temperature during Earth's great climate fluctuations of the ice age.

Answer: <https://biology-forums.com/index.php?topic=373747>

### Question 390

photic zone intertidal zone neritic zone oceanic zone

Answer: <https://biology-forums.com/index.php?topic=373817>

### Question 391

Which observation supports the theory that the planets formed from a disk shaped nebula?

- A) Pluto and comets follow elliptical orbits that pass inside the orbit of Neptune.
- B) The rocky planets are close to the Sun.
- C) The planets revolve around the Sun in approximately the same plane of the ecliptic.
- D) The Sun is the center of the solar system.

Answer: <https://biology-forums.com/index.php?topic=374398>

### Question 392

You are in a ship in deep water offshore from a large island. There is a heavy swell from the northeast and the island is to the southwest of you when the ship capsizes. Based on the wave direction, what should you do?

- A) Swim in a circle because that is what the waves are doing.
- B) Swim like crazy; the waves are going to carry you away from shore.
- C) Swim toward the island; the waves aren't going to take you anywhere.
- D) Just float, the waves will drive you to shore since the waves are moving toward the island.

Answer: <https://biology-forums.com/index.php?topic=373861>

### Question 393

echo sounder Doppler radar sidescan sonar radar altimeters

Answer: <https://biology-forums.com/index.php?topic=373754>

### Question 394

When the hinge line of a fold is not horizontal the fold is said to \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373495>

### Question 395

Volcano A erupts rocks with  $\text{SiO}_2$  content ranging from 49% to 52% whereas volcano B, 100km away, erupts materials with  $\text{SiO}_2$  content of 62-68%. Which statement best characterizes these two volcanos?

- A) Both volcanos are shield type volcanos that are characterized by quiescent eruptions.
- B) Both volcanos are violent, explosive volcanos that spread ash continent wide.
- C) Volcano A is probably a shield volcano with typically quiescent eruptions, whereas Volcano B is likely a stratovolcano characterized by violent, explosive eruptions.
- D) Volcano A is likely to be a supervolcano with violent eruptions, whereas volcano B is probably a shield volcano with quiescent eruptions.

Answer: <https://biology-forums.com/index.php?topic=373379>

### Question 396

Quartz sand is a useless commodity unless you want to rebuild a beach.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372681>

### Question 397

Which of the following is not true for anticyclonic storms systems in the Northern Hemisphere?

- A) The outward flow produces a clockwise circulation due to the Coriolis force.
- B) The storm system is a low-latitude phenomena associated with outflow from tropical cyclones.
- C) The storm system is characterized by high pressure and descending air.
- D) The storm system is characteristic of mid-latitude zones and is typically associated with fair weather.

Answer: <https://biology-forums.com/index.php?topic=374129>

### Question 398

neutron star supernova white dwarf black hole

Answer: <https://biology-forums.com/index.php?topic=374591>

### Question 399

A(n) \_\_\_\_\_ fault has little or no vertical movements of the two blocks.

- A) oblique slip
- B) stick slip
- C) dip slip
- D) strike slip

Answer: <https://biology-forums.com/index.php?topic=373458>

### Question 400

Toward the end of the Mesozoic era, the \_\_\_\_\_ orogeny formed the southern ranges of the Rocky Mountains.

Answer: <https://biology-forums.com/index.php?topic=373689>

### Question 401

Sedimentary rocks comprise approximately \_\_\_\_\_ percent of Earth's outermost 10 miles.

- A) 15
- B) 30
- C) 50
- D) 5

Answer: <https://biology-forums.com/index.php?topic=372733>

### Question 402

Another name for the area of equatorial low pressure is the \_\_\_\_\_.

- A) horse latitudes
- B) westerlies
- C) subpolar easterlies
- D) doldrums

Answer: <https://biology-forums.com/index.php?topic=374123>

### Question 403

The low grade metamorphism of shale produces \_\_\_\_\_.

- A) slate
- B) gneiss
- C) marble
- D) schist

Answer: <https://biology-forums.com/index.php?topic=372743>

### Question 404

In the Ptolemaic (Greek) model of the universe, the \_\_\_\_\_.

- A) earth was flat
- B) earth rotated on its axis to produce night and day
- C) earth was in the center of the universe
- D) Sun was in the center of the solar system

Answer: <https://biology-forums.com/index.php?topic=374321>

### Question 405

In the Northern Hemisphere, tornadoes are most frequent during the \_\_\_\_\_.

- A) October-December period
- B) April-June period
- C) month of September

D) January-March period

Answer: <https://biology-forums.com/index.php?topic=374201>

### Question 406

Prominences and solar flares present dangers to astronauts primarily because \_\_\_\_\_.

- A) they do not pose a danger to astronauts.
- B) they can overheat the spacecraft.
- C) they pose a radiation danger from X-rays and gamma rays, but primarily from high-energy particle emissions.
- D) they disrupt communications on earth

Answer: <https://biology-forums.com/index.php?topic=374513>

### Question 407

Kilauea is an example of a \_\_\_\_\_.

- A) shield volcano
- B) volcanic neck
- C) cinder cone
- D) lava dome

Answer: <https://biology-forums.com/index.php?topic=373395>

### Question 408

The largest of Earth's spheres is the \_\_\_\_\_.

- A) atmosphere
- B) biosphere
- C) geosphere
- D) hydrosphere

Answer: <https://biology-forums.com/index.php?topic=372503>

### Question 409

P waves \_\_\_\_\_.

- A) propagate only in solids
- B) produce the strongest ground shaking
- C) have higher amplitudes than do S waves
- D) are faster than S waves and surface waves

Answer: <https://biology-forums.com/index.php?topic=373310>

### Question 410

Which one of the following applies to a valley glacier that lengthens (extends the position of its terminus downslope) over a period of many years?

- A) accumulation and wastage are about equal
- B) accumulation exceeds wastage
- C) wastage exceeds accumulation
- D) none of the above

Answer: <https://biology-forums.com/index.php?topic=373171>

### Question 411

On a Hertzsprung-Russell Diagram, our Sun is classified as \_\_\_\_\_.

- A) an average star
- B) a yellow giant
- C) a super star
- D) a yellow dwarf
- E) a mediocre star

Answer: <https://biology-forums.com/index.php?topic=374563>

### Question 412

The black sand beaches in Hawaii are comprised of \_\_\_\_\_.

- A) fragments of black coral
- B) fragments of obsidian glass
- C) ground up bottle and other debris placed there by Hawaii tourist bureaus. There is not natural sand in Hawaii because there is no quartz
- D) fragments of basaltic volcanic rock

Answer: <https://biology-forums.com/index.php?topic=373851>

### Question 413

The \_\_\_\_\_ Ocean is largest.

- A) Pacific
- B) Indian
- C) Atlantic
- D) Arctic

Answer: <https://biology-forums.com/index.php?topic=373703>

### Question 414

Two weather stations record air pressure. Weather station 1 is 100km north of weather station 2. The pressure at station 1 is 1023mb and at station 2 it is 1015mb. What is the pressure gradient between the two stations?

Answer: <https://biology-forums.com/index.php?topic=374155>

### Question 415

Why are coastal and mountainous regions often much more windy than other locations at similar latitudes? Also, from this and earlier chapters on meteorology, are there other weather characteristics that are perhaps unique or different for these areas?

Answer: <https://biology-forums.com/index.php?topic=374164>

### Question 416

Who made the first clear statement of the law of superposition? When?

- A) William Smith, eighteenth century
- B) John Stuart Priestly, nineteenth century
- C) John Wesley Powell, nineteenth century
- D) Nicolaus Steno, seventeenth century

Answer: <https://biology-forums.com/index.php?topic=373534>

### Question 417

If you live on the east coast of Florida or the Gulf Coast, why might you hope for an El Niño year?

- A) It will bring clear, cool summer conditions, albeit dry.
- B) It will produce a warmer summer, but with less rain than normal.
- C) It will decrease the chances of heavy summer thunderstorms and floods.
- D) It will decrease the probability of tropical cyclones.

Answer: <https://biology-forums.com/index.php?topic=374145>

### Question 418

Travertine, a form of limestone commonly found in caves, forms \_\_\_\_\_.

- A) when carbon dioxide from the air contacts the moisture in the cave
- B) when water in a cave is cooled
- C) when water in a cave is heated
- D) when carbon dioxide in the water escapes into the air

Answer: <https://biology-forums.com/index.php?topic=372730>

### Question 419

Megathrusts between subducting oceanic crust and an overriding plate are a potential source of tsunamis because \_\_\_\_\_.

- A) oceanic crust is "thrust" over the continent along a megathrust so that forces the land downward producing a tsunami
- B) one side of the fault is on land and the other is underwater so an earthquake could cause a landslide or tsunami depending on which side moved
- C) the earthquakes on these faults are underwater and could displace large amounts of water from the oceans
- D) the earthquakes on these faults are underwater and could release large amounts of water from the asthenosphere

Answer: <https://biology-forums.com/index.php?topic=373302>

### Question 420

Which one of the following statements is true?

- A) Deserts and dry lands are concentrated in areas of ascending air masses and relatively low atmospheric pressures.
- B) Wind is the major cause of erosion in deserts because there is little water but a lot of wind available.
- C) Despite infrequent rainfalls, erosional and depositional features of running water are important in desert landscapes.
- D) Desert landscapes are monotonous, relatively flat areas covered to various depths with sand.

Answer: <https://biology-forums.com/index.php?topic=373203>

### Question 421

Density in seawater is determined by \_\_\_\_\_.

- A) salinity
- B) temperature
- C) both temperature and salinity
- D) none of these

Answer: <https://biology-forums.com/index.php?topic=373796>

### Question 422

What is the right ascension and declination for Polaris, the North Star?

- A) RA 0 hr, D 0 degrees
- B) RA 90 hr, D -90 degrees
- C) RA 0 hr, D 80 degrees
- D) RA indeterminate, D 90 degrees

Answer: <https://biology-forums.com/index.php?topic=374352>

### Question 423

Large estuaries are more common on a(n) \_\_\_\_\_ coastline.

- A) emergent
- B) stable
- C) submergent
- D) retreating

Answer: <https://biology-forums.com/index.php?topic=373899>

### Question 424

Approximately how much more energy is released in a 6.5 Richter magnitude earthquake than in one with a Richter magnitude of 5.5?

- A) 30 times
- B) 100 times
- C) 900 times
- D) 10 times

Answer: <https://biology-forums.com/index.php?topic=373324>

### Question 425

Which of the following mass movements is most likely to occur in a geologic setting where the rock strata are inclined?

- A) creep
- B) debris flow
- C) rockslide
- D) slump

Answer: <https://biology-forums.com/index.php?topic=372934>

### Question 426

Closely spaced isobars indicate \_\_\_\_\_.

- A) high pressure gradient and high winds
- B) geostrophic conditions
- C) high pressure gradient and likely gusty winds
- D) low pressure gradient and weak gusty winds

Answer: <https://biology-forums.com/index.php?topic=374107>

### Question 427

sodium chloride magnesium chloride sodium sulfate carbon dioxide

Answer: <https://biology-forums.com/index.php?topic=373815>

### Question 428

small basaltic cones built during one short, eruptive episode

Answer: <https://biology-forums.com/index.php?topic=373437>

### Question 429

A dry climate is defined as \_\_\_\_\_.

- A) a climate where wind is the dominate form of erosion
- B) a climate where the temperature is over 25°C
- C) one were the evaporation exceeds the precipitation
- D) one where the rainfall is less than 10 cm per year
- E) all of the above

Answer: <https://biology-forums.com/index.php?topic=374246>

### Question 430

Comet asteroid meteorite planet

Answer: <https://biology-forums.com/index.php?topic=374451>

### Question 431

Given an environmental lapse rate of 5°C/1000 m and a dry adiabatic of 10°C, what would what would happen if unsaturated air that had a temperature of 25°C at the surface were forced to rise 2000 m in the air ?

- A) It would be warmer than the air around it so it would keep rising.
- B) It would be colder than the air around it so it would sink.
- C) It would keep rising because it would be less dense than the surrounding air.
- D) It would sink back to the surface because it was more dense than the surrounding air.
- E) It would have the same temperature and density as the surrounding air so it would stay at that height.

Answer: <https://biology-forums.com/index.php?topic=374042>

### Question 432

During the late Paleozoic, the present-day North America, Europe, western Asia, Siberia, and perhaps China formed the northern continent of \_\_\_\_\_.

- A) Greenland
- B) Laurasia
- C) Gondwanaland
- D) Africa
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=373641>

### Question 433

Dolomite is a magnesium-rich member of the \_\_\_\_\_ group.

- A) carbonate
- B) halide
- C) sulfate
- D) silicate

Answer: <https://biology-forums.com/index.php?topic=372635>

### Question 434

Which of the following is not a Jovian planet?

- A) Jupiter
- B) Saturn
- C) Pluto
- D) Neptune

Answer: <https://biology-forums.com/index.php?topic=374399>

### Question 435

Tornadoes have embedded secondary vortices called suction vortices. Hurricanes also have embedded secondary vortices, they are called \_\_\_\_\_.

- A) tropical cyclone secondary vortices
- B) tornadoes
- C) hurricane suction vortices
- D) storm surge vortices

Answer: <https://biology-forums.com/index.php?topic=374211>

### Question 436

What causes seasons?

- A) the elliptical orbit of the earth
- B) differences in the amount of daylight

- C) the changing tilt angle of the earth
- D) seasonal changes in the angle of the sun above the horizon
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=373957>

### Question 437

Changes in the shape of a rock body in response to a differential stress is called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373494>

### Question 438

Although fluorite and native sulfur are not metallic minerals, deposits of these materials are still called ore deposits.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372677>

### Question 439

Which of the following is not true of peridotite?

- A) It is the main constituent of the Earth's crust.
- B) It is rarely found at the Earth's surface.
- C) It is composed almost entirely of olivine and pyroxene.
- D) It is denser than basaltic rocks.

Answer: <https://biology-forums.com/index.php?topic=372702>

### Question 440

What two factors speed up rates of chemical reaction and weathering in rocks and soils?

- A) high temperatures; very dry
- B) low temperatures; very dry
- C) low temperatures; very moist
- D) warm temperatures; very moist

Answer: <https://biology-forums.com/index.php?topic=372898>

### Question 441

Any variance in the orbit of a planet from its predicted path is referred to as \_\_\_\_\_.

- A) Ptolemaic motion
- B) precession
- C) perturbation
- D) retrograde motion
- E) occultation

Answer: <https://biology-forums.com/index.php?topic=374341>

### Question 442

What would have happened to the earth if it were 10% closer to the sun?

- A) Our sun would have burned out after a few hundred million years so life would not evolve.
- B) Our atmosphere would consist mainly of nitrogen.
- C) Liquid water and the water cycle would not exist.
- D) Our atmosphere would consist mainly of carbon dioxide.

Answer: <https://biology-forums.com/index.php?topic=373601>

### Question 443

Why is the molten metallic outer core and the magnetic field important to life on Earth?

- A) If we did not have the molten core and the magnetic field, we would be bombarded by meteorites and we would not be able to hold the moon in orbit.
- B) If we did not have the molten core and the magnetic field, the earth would not have plate tectonics and would be covered entirely by water.
- C) If we did not have the molten core and the magnetic field, we would be bombarded by cosmic rays that would strip away our atmosphere.
- D) If we did not have the molten core and the magnetic field, the atmosphere would be very different with either too much ammonia and methane or too little oxygen and water.

Answer: <https://biology-forums.com/index.php?topic=373600>

### Question 444

The recent (geologically) volcanic activity in Yellowstone National Park is \_\_\_\_\_.

- A) related to plate subduction
- B) related to intraplate, hot spot volcanism
- C) related to a divergent plate boundary
- D) related to a transform plate boundary

Answer: <https://biology-forums.com/index.php?topic=373429>

### Question 445

What is the modern theory for orogenesis?

- A) shrinking earth model
- B) geosynclinal theory
- C) plate tectonics theory
- D) expanding earth theory

Answer: <https://biology-forums.com/index.php?topic=373465>

### Question 446

Which of the following is considered the most important driving factor for Plate Tectonics?

- A) layer cake
- B) slab pull
- C) whole mantle
- D) ridge push

Answer: <https://biology-forums.com/index.php?topic=373281>

### Question 447

shale sandstone breccia conglomerate

Answer: <https://biology-forums.com/index.php?topic=372846>

### Question 448

\_\_\_\_\_ are found both on Mars and Earth.

- A) Active volcanoes
- B) Oceans
- C) Erosional features related to flowing water
- D) Heavily cratered landscapes preserved from early in the planets' histories

Answer: <https://biology-forums.com/index.php?topic=374415>

### Question 449

A major difference between coal and oil/gas is \_\_\_\_\_.

- A) coal forms in deep marine environments and oil/gas form in shallow marine environments
- B) coal forms on land from dinosaurs and oil/gas form from ancient fish
- C) coal forms in shallow marine environments and oil/gas form in swamps
- D) coal forms in swamps and oil/gas form in marine environments

Answer: <https://biology-forums.com/index.php?topic=372839>

### Question 450

Why isn't manganese mined on the seabed when there are abundant manganese nodules in some parts of the ocean floor?

- A) It is not economical to mine manganese nodules at present-day world prices for manganese and associated metals in nodules.
- B) The manganese market is held by a global cartel who prevent the material from being mined.
- C) The manganese is too difficult to extract from the nodules; a new technology is needed.
- D) It is impossible to extract the nodules from the seafloor with present-day technology.

Answer: <https://biology-forums.com/index.php?topic=373751>

### Question 451

cold front stationary front warm front occluded front

Answer: <https://biology-forums.com/index.php?topic=374214>

### Question 452

Which planet has the highest recorded winds in the solar system?

- A) Venus
- B) Neptune

- C) Mars
- D) Uranus

Answer: <https://biology-forums.com/index.php?topic=374438>

### Question 453

In the proto-solar system nebula, gravity pulled matter together to form larger bodies. As they collided, what happened to these bodies?

- A) Immense heat was released within the colliding bodies as gravitational potential energy was converted to heat.
- B) Oblique collisions caused individual bodies to spin.
- C) The objects temporarily broke apart and then reformed into large objects, cooling rapidly during the breakup period.
- D) The objects broke apart to form asteroids, much like a neutron colliding with a heavy atom produces fission.

Answer: <https://biology-forums.com/index.php?topic=372497>

### Question 454

A naturally occurring concentration of one or more metallic minerals that can be extracted economically is a(n) \_\_\_\_\_.

- A) tailing
- B) ore
- C) resource
- D) reserve

Answer: <https://biology-forums.com/index.php?topic=372639>

### Question 455

Rounding of angular edges of rock outcropping and formation of insitu, spherical boulders are both indications of \_\_\_\_\_.

- A) rock fall onto sharp edges breaking of angular corners of rock outcrops
- B) humans and animals walking across the Earth's surface, wearing away the surface
- C) chemical weather and associated spheroidal weathering
- D) dissolution of the rock surface by acid rain

Answer: <https://biology-forums.com/index.php?topic=372902>

### Question 456

The leeward sides of mountains are typically dry and are often arid enough to be referred to as \_\_\_\_\_.

- A) rain shadow deserts
- B) steppes
- C) taigas
- D) a Mediterranean climate
- E) tundra

Answer: <https://biology-forums.com/index.php?topic=374256>

### Question 457

Diamond and quartz are both minerals composed of a single element.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372676>

### Question 458

You are standing above a 20 m high sea cliff with a large beach below you. All around you is a flat surface with thin soil on a rocky base. In the distance you see another flat bench but it is about 30 m higher than you are. Where are you?

- A) on a dune field behind an active shoreline
- B) on an uplifted wave-cut terrace along an emergent coastline
- C) on a subsiding coastline where a recent earthquake happened to uplift the seabed
- D) You must be on the moon; there is nothing like that on Earth.

Answer: <https://biology-forums.com/index.php?topic=373902>

### Question 459

Glossopteris, a fossil found in Africa, Australia, India, South America, and Antarctica, is significant because \_\_\_\_\_.

- A) it demonstrated that all of the continents where the fossil is found must have been cold when the organism was alive.
- B) it demonstrated that water could not have dispersed the organism over such a large area
- C) it demonstrated that all of the continents where the fossil is found must have been tropical when the organism was alive
- D) it demonstrated that wind could not have dispersed the organism over such a large area

Answer: <https://biology-forums.com/index.php?topic=373233>

### Question 460

The principle of inclusions which states that the source of rock fragments found in a unit must be older than the unit with the fragments is important because \_\_\_\_\_.

- A) it showed that igneous rocks were younger than sedimentary rocks
- B) it provided a tool for sorting out the relative timing of various geologic events
- C) it provided a way to recognize if rocks had been deformed
- D) it allowed geologists to correlate rock units over large distances

Answer: <https://biology-forums.com/index.php?topic=373523>

### Question 461

Centuries ago quarrymen learned that when quarrying granite it was usually easiest to break the rock along a nearly horizontal surface. We now know this arises because \_\_\_\_\_.

- A) it was a false observation; the quarrymen in those days couldn't measure resistance, and it just seemed easier to wedge blocks of this type
- B) frost wedging for hundreds of thousands to millions of years have produced cracks parallel to the ground surface
- C) chemical weathering of granite makes the material expand, pulling it away from the underlying rock
- D) uplift and exhumation of granites produces an unloading, which produces sheeting joints like the quarrymen used

Answer: <https://biology-forums.com/index.php?topic=372903>

### Question 462

The 2011 earthquake and tsunami in Japan killed approximately 21,000 people while the 2010 earthquake in Haiti killed approximately 316,000 people because \_\_\_\_\_.

- A) the construction methods in Haiti were not as good as those used in Japan
- B) the earthquake in Haiti generated a very large tsunami that killed most of the people
- C) the earthquake in Haiti was a larger magnitude (released more energy) than the one in Japan
- D) the population of Haiti was much greater than that of northern Japan where the earthquake occurred
- E) All of the above were factors.

Answer: <https://biology-forums.com/index.php?topic=373328>

### Question 463

In correct order from the center outward, Earth includes which units?

- A) core, crust, mantle, hydrosphere
- B) inner core, crust, mantle, hydrosphere
- C) core, inner mantle, outer mantle, crust
- D) inner core, outer core, mantle, crust

Answer: <https://biology-forums.com/index.php?topic=372506>

### Question 464

Compaction is most significant as a lithification process for sedimentary rocks composed of sand-sized particles.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372869>

### Question 465

At 25°C it takes 20 grams of water vapor to saturate 1 kilogram of dry air. If there are 5 grams of water vapor in 1 km of air at that temperature, what is the relative humidity?

- A) 25%
- B) 10%
- C) 50%
- D) 75%
- E) 100%

Answer: <https://biology-forums.com/index.php?topic=374022>

### Question 466

Low latitude dry climates are found primarily \_\_\_\_\_.

- A) near the equator.
- B) between the equator and the Tropics of Cancer and Capricorn.
- C) near 45° north and south latitudes.
- D) near the Tropics of Cancer and Capricorn.
- E) near 35° north and south latitudes.

Answer: <https://biology-forums.com/index.php?topic=374248>

### Question 467

A \_\_\_\_\_ is an intrusive, igneous rock body that is tabular and concordant.

- A) dike
- B) laccolith
- C) sill
- D) pluton

Answer: <https://biology-forums.com/index.php?topic=373421>

### Question 468

Af and Am climates form a discontinuous belt astride the \_\_\_\_\_.

- A) Prime Meridian
- B) Tropic of Cancer
- C) Tropic of Capricorn
- D) equator
- E) Arctic Circle

Answer: <https://biology-forums.com/index.php?topic=374245>

### Question 469

The lowest layer of the atmosphere is the \_\_\_\_\_.

- A) ionosphere
- B) stratosphere
- C) mesosphere
- D) troposphere

Answer: <https://biology-forums.com/index.php?topic=373943>

### Question 470

Submarine canyons found on the continental slope are believed to have been created \_\_\_\_\_.

- A) by faulting
- B) by rivers during the ice age
- C) because of a plate plunging into the mantle
- D) none of these

Answer: <https://biology-forums.com/index.php?topic=373716>

### Question 471

Fluorescence is a characteristic of \_\_\_\_\_.

- A) emission nebulae
- B) reflection nebulae
- C) dark nebulae
- D) planetary nebulae
- E) blue nebulae

Answer: <https://biology-forums.com/index.php?topic=374548>

### Question 472

Which of the following is determined by measuring the amplitude of waves recorded from an earthquake?

- A) epicenter
- B) magnitude
- C) focus or hypocenter
- D) intensity

Answer: <https://biology-forums.com/index.php?topic=373322>

### Question 473

On the average, how much of the Sun's energy that is intercepted by Earth is reflected back to space?

- A) 20%
- B) 10%
- C) 30%
- D) 40%

Answer: <https://biology-forums.com/index.php?topic=373975>

### Question 474

oxygen nitrogen hydrogen argon

Answer: <https://biology-forums.com/index.php?topic=373991>

### Question 475

Where is the Coriolis force greatest?

- A) high latitude
- B) intermediate latitudes
- C) anywhere air moves north or south
- D) low latitude

Answer: <https://biology-forums.com/index.php?topic=374105>

### Question 476

Primitive organisms, called \_\_\_\_\_, reproduce asexually and contain cells that lack organized nuclei.

Answer: <https://biology-forums.com/index.php?topic=373692>

### Question 477

A main-sequence star like our sun is expected to be stable for approximately \_\_\_\_\_.

- A) 100 million years
- B) 100 billion years
- C) 1 billion years
- D) 10 billion years
- E) 10 million years

Answer: <https://biology-forums.com/index.php?topic=374570>

### Question 478

What is the difference between "magma" and "lava"?

- A) It is just a name change, and lava is what magma is called if it reaches the surface of the Earth.
- B) Magma is formed deep in the Earth and lava forms near the surface of the Earth.
- C) Magma makes igneous rocks and lava forms volcanoes.
- D) Magma is less dense than lava.

Answer: <https://biology-forums.com/index.php?topic=372696>

### Question 479

Planets appear to move \_\_\_\_\_ each night, but occasionally they appear to stop and reverse direction.

- A) eastward
- B) westward
- C) southward
- D) northward
- E) It varies significantly.

Answer: <https://biology-forums.com/index.php?topic=374328>

### Question 480

Jupiter's atmosphere displays spectacular cyclonic and anticyclonic storms, some persisting for long periods of time. How do these storms form?

- A) They form like storms on the Sun, for low level nuclear fusion in Jupiter's core.
- B) Jupiter has a very strong magnetic field, and these storms both form the field and are strengthened by it as it feeds electric currents in the atmosphere.
- C) Like on Earth, they result from differential solar heating of the equatorial region versus poles, and resultant atmospheric circulation.
- D) They are due to internal heat exchange within the planet, basically convection currents transferring internal heat to the surface.

Answer: <https://biology-forums.com/index.php?topic=374440>

### Question 481

Visible light is a small part of the electromagnetic spectrum, but when we see colors, we are seeing \_\_\_\_\_.

- A) an even narrower range of wavelengths than white light within the visible light spectrum
- B) different photons that come from different directions
- C) refractions of white light
- D) complementary spectra from light re-emitted off objects when light impinges on the object

Answer: <https://biology-forums.com/index.php?topic=374468>

### Question 482

The waterline where the ocean meets the land is the boundary between oceanic crust and continental crust.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372569>

### Question 483

You pick up a sandstone. In the rock sample you see an impression of a sea shell in the rock. This type of fossil is a \_\_\_\_\_.

- A) cast
- B) permineralized fossil
- C) mold
- D) pseudofossil

Answer: <https://biology-forums.com/index.php?topic=373543>

### Question 484

Permeable rock strata or sediment that transmit groundwater freely are called \_\_\_\_\_.

- A) aquifers
- B) aquitards
- C) springs
- D) perched water tables

Answer: <https://biology-forums.com/index.php?topic=373100>

### Question 485

At the start of the Paleozoic, North America \_\_\_\_\_.

- A) was a large number of small fragments that had not yet collided
- B) had no plants or animals
- C) had abundant life
- D) was mountainous and dry
- E) did not exist

Answer: <https://biology-forums.com/index.php?topic=373643>

### Question 486

Igneous rocks with an andesitic composition \_\_\_\_\_.

- A) are found primarily in continental interiors
- B) make up most of the sea floor
- C) are denser than basaltic compositional rocks
- D) are denser than granitic compositional rocks

Answer: <https://biology-forums.com/index.php?topic=372701>

### Question 487

Farmer Brown lives in a semi-arid part of the United States with numerous small lakes associated with glacial deposits of sand and gravel. He decides he needs to irrigate part of his land and drills a shallow well 100m from his property line with Farmer Smith who has a small lake just across the property line, and he depends on this lake to water his cattle. By late summer, Farmer Smith goes out to his lake and discovers it is dry. What happened?

- A) Farmer Brown's well produced a sinkhole that swallowed up Farmer Smith's lake.
- B) Farmer Brown has been secretly pumping water from Farmer Smith's lake, and now Farmer Smith is going to come out at night with a shotgun.
- C) Farmer Brown's well has dropped the water table in the well's cone of depression, and the well has led to the lake drying up.
- D) There must have been a drought or Farmer Brown wouldn't have needed to irrigate, so it must be natural.

Answer: <https://biology-forums.com/index.php?topic=373111>

### Question 488

Moving from the shoreline towards the deep-ocean basin, the continental margin includes the \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=372579>

### Question 489

One important relationship between chemical and mechanical weathering is \_\_\_\_\_.

- A) mechanical weathering can produce smaller pieces of rock that have more surface area for chemical weathering to work on.
- B) mechanical weathering forms more brittle materials that are easily broken down by chemical weathering.

C) chemical weathering can produce smaller pieces of rock that can then be modified by mechanical weathering  
D) chemical weathering can form brittle materials that are easily broken into smaller pieces by mechanical weathering  
Answer: <https://biology-forums.com/index.php?topic=372891>

### Question 490

Tycho Brahe set out to disprove Copernicus, so why is he famous for developing modern astronomical theory?  
A) He made very precise measurements that were key data used by Kepler.  
B) Although he set out to disprove Copernicus, he ultimately accepted Copernicus' theory and was executed by the inquisition.  
C) He theorized the concept of gravity with no data, which was left undiscovered until Newton.  
D) None of these is correct.  
Answer: <https://biology-forums.com/index.php?topic=374342>

### Question 491

Which of the following statements concerning mudflows is not true?  
A) Mudflows deposit talus slopes.  
B) Mudflows can move and carry very large boulders and other coarse debris.  
C) In hilly areas, mudflows move down the canyons and stream valleys.  
D) Mudflows may be caused by heavy rains or melting snow.  
Answer: <https://biology-forums.com/index.php?topic=372950>

### Question 492

large, fairly steep-sided cones composed of lavas and pyroclastic layers  
Answer: <https://biology-forums.com/index.php?topic=373436>

### Question 493

The convective flow of liquid, metallic iron in the \_\_\_\_\_ is thought to generate Earth's magnetic field.  
Answer: <https://biology-forums.com/index.php?topic=372578>

### Question 494

Fluorescence occurs when \_\_\_\_\_.  
A) visible light is converted to ultraviolet light  
B) infrared light is converted to visible light  
C) Infrared light is converted to ultraviolet light  
D) visible light is converted to infrared light  
E) ultraviolet light is converted to visible light  
Answer: <https://biology-forums.com/index.php?topic=374547>

### Question 495

Japan and the Aleutian Islands have formed from a(n) \_\_\_\_\_ to \_\_\_\_\_ convergent boundary.  
Answer: <https://biology-forums.com/index.php?topic=373286>

### Question 496

The climate in which temperatures average 25°C or more each month and total precipitation for the year is high is the \_\_\_\_\_ climate.  
A) humid subtropics  
B) humid continental  
C) wet tropics  
D) marine west coast  
E) highland  
Answer: <https://biology-forums.com/index.php?topic=374243>

### Question 497

\_\_\_\_\_ are usually the most abundant gases emitted during basaltic volcanism.  
A) Oxygen and nitrogen  
B) Neon and ammonia  
C) Chlorine and sodium  
D) Water and carbon dioxide  
Answer: <https://biology-forums.com/index.php?topic=373384>

### Question 498

The principle of horizontality which states that sediments are usually deposited in relatively flat layers is important because \_\_\_\_\_.

- A) it showed that catastrophism could not explain the flat layers of the earth
- B) it allowed geologists to correlate sedimentary units over large distances
- C) it provided a way to recognize if rocks had been deformed
- D) it provided an explanation how rocks behave in a depositional setting

Answer: <https://biology-forums.com/index.php?topic=373520>

### Question 499

Studies of the chemistry of rocks from arc volcanos indicate the main source of the magma is \_\_\_\_\_.

- A) melting of the asthenosphere above the subducting oceanic plate by frictional heating on the subduction interface
- B) melting of the subducted mantle lithosphere
- C) melting of the asthenosphere above the subducting oceanic plate by fluids acting as a flux to enhance melting
- D) melting of subducted oceanic crust

Answer: <https://biology-forums.com/index.php?topic=373473>

### Question 500

Which of the following is not a typical stage in the evolution of a Basin and Range type region?

- A) Sediment slowly moves downhill to the sea where it is ultimately deposited.
- B) Alluvial fans and bajadas form along the mountain fronts.
- C) Salt flats or playas and occasional playa lakes form.
- D) Water erodes the mountains and deposits sediment in the adjacent basins.

Answer: <https://biology-forums.com/index.php?topic=373201>

### Question 501

The \_\_\_\_\_ Ocean has more extensive abyssal plains than the Pacific Ocean because it has fewer trenches to trap sediments moving down the continental slope.

- A) Atlantic
- B) Arctic
- C) Indian
- D) none of these

Answer: <https://biology-forums.com/index.php?topic=373726>

### Question 502

Rock salt and rock gypsum are common examples of a group of chemical sedimentary rocks called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=372881>

### Question 503

Igneous rock is formed \_\_\_\_\_.

- A) by the weathering of preexisting rocks
- B) by crystallization of magma
- C) at great depth within Earth
- D) by changes in mineral composition

Answer: <https://biology-forums.com/index.php?topic=372713>

### Question 504

Fetch is \_\_\_\_\_.

- A) the circular pattern made by water particles when a wave passes
- B) the distance between the trough of a wave and the still water level
- C) a method of shoreline erosion control
- D) none of these

Answer: <https://biology-forums.com/index.php?topic=373859>

### Question 505

Explain why the Mesosaurus was a good example to support Wegener's ideas.

Answer: <https://biology-forums.com/index.php?topic=373289>

### Question 506

What kind of time span is required to produce most mineral deposits?

- A) tens of thousands to millions of years

- B) billions of years
- C) 1-100 years, or about a human life span
- D) We have no way of knowing this, but most were formed at the same time as the Earth.

Answer: <https://biology-forums.com/index.php?topic=372645>

### Question 507

In deserts of southwestern North America developers often build houses in dry stream beds and build only minimal subsurface drainage systems to handle a flow of water comparable to the size of the dry stream channel. Is this a reasonable development model in the interest of public safety?

- A) Yes, any potential flooding catastrophe would be a 100 year flood event and would have adequate warning to evacuate people for safety, so the drainage system is adequate.
- B) Yes, although flash floods can occur, using the channel size is a reasonable estimate of the maximum flood size.
- C) No, flash floods can produce high viscosity mudflows that would not be captured by the drainage system and could flow out over the valley, destroying everything in its path.
- D) No, giant rock avalanches could come down the valley covering houses.

Answer: <https://biology-forums.com/index.php?topic=372957>

### Question 508

There are websites that predict solar weather, or essentially the impact of the solar wind on earth (in one sense, our planet is within the outer atmosphere of the sun). How is this possible when the speed of light is a fixed quantity?

- A) The solar forecast is like weather forecasting on Earth; solar scientists observe phenomena as they form and grow on the sun, and predict their timing
- B) The solar weather effect on Earth depends largely on the earth's magnetic field and its interaction with Earth weather, so scientists predict variations in both.
- C) The solar wind does not travel at the speed of light, so it arrives much later than when a solar event is observed.
- D) The solar weather is related to sunspots, and they only affect Earth when the sunspots are in line with the earth, so knowing the solar rotation speed, you can predict when sunspots are aimed at Earth.

Answer: <https://biology-forums.com/index.php?topic=374511>

### Question 509

Most of the mass in the solar system is contained \_\_\_\_\_.

- A) in the outer planets
- B) in the inner planets
- C) in the sun plus Jupiter
- D) in the sun

Answer: <https://biology-forums.com/index.php?topic=374397>

### Question 510

Axial precession is sometimes called the precession of equinoxes because it results in a gradual shift, relative to the celestial background, of the position where the sun crosses the celestial equator at the equinox. Astrology is a mythology based on things like your "sign" which refers to the position of the sun in the celestial zodiac (the 12 constellations along the ecliptic) on your birthday. This system was established almost two thousand years ago. If this mythology were true (and you believe your horoscope) can you use the dates for your "sign" based on this 2000 year old system?

- A) No, because 2000 years is almost 1/12, or one full sign shift, in the zodiac, so the 2000 year old signs are off by almost one full sign.
- B) No, although the precession shifts the equinox position, the other zodiac positions do not change because they are fixed to the celestial sphere.
- C) Yes, the dates are fixed; your sign is your sign.
- D) Yes, any changes are insignificant in 2000 years.

Answer: <https://biology-forums.com/index.php?topic=374360>

### Question 511

Which of the following is associated with ocean ridges?

- A) mountainous topography
- B) rift zones
- C) volcanic structures
- D) all of these

Answer: <https://biology-forums.com/index.php?topic=373730>

### Question 512

The \_\_\_\_\_ refers to the sum total of all life on Earth.

- A) hydrosphere
- B) geosphere
- C) atmosphere

D) biosphere

Answer: <https://biology-forums.com/index.php?topic=372501>

### Question 513

The change from a sediment to a sedimentary rock typically involves burying the sediment.

A) [b]True[/b]

B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372849>

### Question 514

Intrusive igneous rocks are often characterized as coarse-grained because \_\_\_\_\_.

A) the pressures at depth cause them to have a rough texture

B) the uplift process that exposes the rock fractures them and makes them rough

C) the slow cooling at depth allows large crystals to grow

D) small holes from escaping gases leave them rough and coarse

Answer: <https://biology-forums.com/index.php?topic=372704>

### Question 515

Which of the following denotes the divisions of the geologic time scale in correct order of decreasing lengths of time beginning with the longest time interval and ending with the shortest?

A) eon, epoch, period, era

B) era, period, epoch, eon

C) eon, era, epoch, period

D) eon, era, period, epoch

Answer: <https://biology-forums.com/index.php?topic=373573>

### Question 516

\_\_\_\_\_ generally constitutes the highest percentage of the annual sediment load moved by a stream.

A) Saltation load

B) Suspended load

C) Bed load

D) Dissolved load

Answer: <https://biology-forums.com/index.php?topic=373068>

### Question 517

Of the 5 major groups in the Köppen classification system, which letter below indicates the classification that is based primarily on precipitation?

A) A

B) B

C) C

D) D

E) E

Answer: <https://biology-forums.com/index.php?topic=374234>

### Question 518

Visible light emitted from the celestial bodies is only a small part of an array of energy called \_\_\_\_\_ radiation.

Answer: <https://biology-forums.com/index.php?topic=374523>

### Question 519

A flat, bench-like surface cut in rock along a coast is a \_\_\_\_\_.

A) tombolo

B) sea stack

C) spit

D) wave-cut platform

Answer: <https://biology-forums.com/index.php?topic=373879>

### Question 520

A scientific theory is a tentative or untested explanation that is proposed to explain scientific observations.

A) [b]True[/b]

B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372549>

### Question 521

What two elements formed first?

- A) hydrogen and oxygen
- B) protons and neutrons
- C) electrons and protons
- D) helium and hydrogen
- E) helium and oxygen

Answer: <https://biology-forums.com/index.php?topic=374544>

### Question 522

\_\_\_\_\_ has an average density of 2.7 g/cc.

Answer: <https://biology-forums.com/index.php?topic=373363>

### Question 523

Slate is \_\_\_\_\_ than shale.

- A) darker
- B) lighter
- C) denser
- D) more planar

Answer: <https://biology-forums.com/index.php?topic=372753>

### Question 524

This cloud type is confined to the middle height range.

- A) altostratus
- B) cirrus
- C) cumulonimbus
- D) cirrostratus

Answer: <https://biology-forums.com/index.php?topic=374053>

### Question 525

A popular modern theory for the origin of the Earth-Moon system is that the early Earth collided with another planet the size of \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374454>

### Question 526

Deep ocean trenches are surficial evidence for \_\_\_\_\_.

- A) sinking of oceanic lithosphere into the mantle at a subduction zone
- B) rising of hot asthenosphere from deep in the mantle
- C) transform faulting between an oceanic plate and a continental plate
- D) rifting beneath a continental plate and the beginning of continental drift

Answer: <https://biology-forums.com/index.php?topic=373262>

### Question 527

What term denotes the percentage of open space or voids in a material?

Answer: <https://biology-forums.com/index.php?topic=373134>

### Question 528

Compared to Earth's atmosphere, the atmosphere of Mars has surface pressures that are \_\_\_\_\_.

- A) one-half those on Earth; main gases are methane and nitrogen
- B) 0.1 times those on Earth; major gases are water vapor and carbon dioxide
- C) 3 times those on Earth; major gases are water vapor and carbon dioxide
- D) 1.5 times those on Earth; main gases are methane and nitrogen

Answer: <https://biology-forums.com/index.php?topic=374417>

### Question 529

The 90° angle solar rays are striking the Tropic of Cancer on \_\_\_\_\_.

- A) March 21
- B) September 21

C) December 21

D) June 21

Answer: <https://biology-forums.com/index.php?topic=373964>

### Question 530

The thermocline or area of rapid temperature change in the ocean is important because \_\_\_\_\_.

A) it controls the climate and rate of evaporation and precipitation near the oceans.

B) different chemical compositions form at different temperatures

C) it forms a barrier to many types of marine life that can only exist within certain temperature ranges

D) the ability for the ocean to dissolve CO<sub>2</sub> from the atmosphere is dependent on temperature over a range of depths.

E) none of the above

Answer: <https://biology-forums.com/index.php?topic=373788>

### Question 531

In North America "no till farming" has become a widespread practice made possible by genetically modified (GM) crops that can be sprayed with herbicide that kills everything but the GM plant. Evaluate the following statements on the role of GM crops on soil conservation issues?

A) The no till practice dramatically improves soil conservation by providing loose organic matter cover to the soil surface, breaking up wind and runoff, lowering erosion rates.

B) The herbicides kill beneficial plants and animals and eventually will make the soil sterile.

C) They are a disaster. By killing all plants except the GM organism they expose the soil to increased erosion.

D) They have no effect one way or the other on soil erosion.

Answer: <https://biology-forums.com/index.php?topic=372931>

### Question 532

Winterless climates with all months having a mean temperature above 18°C are known as \_\_\_\_\_ climates.

A) humid middle-latitude

B) dry

C) polar

D) humid tropical

Answer: <https://biology-forums.com/index.php?topic=374235>

### Question 533

In Wegener's time, scientists thought that the occurrence of fossils of the same organism in two different, disconnected continents was proof that \_\_\_\_\_.

A) there had once been land bridges separating the continents

B) there were icebergs in the Atlantic Ocean that could carry organisms from Africa to South America

C) birds flew between the continents and carried the organisms with them.

D) the weather patterns had changed over time such that some organisms could be blown by the wind from one place to another.

Answer: <https://biology-forums.com/index.php?topic=373234>

### Question 534

The most rapid type of mass movement is a \_\_\_\_\_.

A) slump

B) debris flow

C) lahar

D) rock avalanche

Answer: <https://biology-forums.com/index.php?topic=372951>

### Question 535

When examining the geology of a region for potential aquifers, what characteristics or factors would you consider? Also, what areas (based on natural and human factors) would you avoid?

Answer: <https://biology-forums.com/index.php?topic=373165>

### Question 536

Chemical weathering rates are highest in \_\_\_\_\_.

A) cold dry climates

B) cold wet climates

C) hot wet climates

D) hot dry climates

Answer: <https://biology-forums.com/index.php?topic=372895>

### Question 537

Gypsum, which is widely used in plaster and wallboard, is a member of the \_\_\_\_\_ group.

- A) silicate
- B) sulfate
- C) carbonate
- D) halide

Answer: <https://biology-forums.com/index.php?topic=372634>

### Question 538

The \_\_\_\_\_ period was the "golden age of trilobites."

Answer: <https://biology-forums.com/index.php?topic=373694>

### Question 539

The North America craton formed as a result of \_\_\_\_\_.

- A) a huge volcanic eruption
- B) collision of older crustal fragments composed of island arcs and other fragments
- C) the collision of two continents to form a supercontinent
- D) the break-up of a large supercontinent
- E) the metamorphism of oceanic crust

Answer: <https://biology-forums.com/index.php?topic=373632>

### Question 540

Why would sand be deposited behind a small island to form a spit or tombolo?

- A) The island protects the coast from rip currents, preserving the sand.
- B) The onshore current from one direction piles up sand here.
- C) Waves refract around the island and the wave energy is dissipated on the island, allowing quiescent water behind, and sand drift to accumulate behind the island.
- D) The tidal affects are trivial behind the island, so the sand is not swept away.

Answer: <https://biology-forums.com/index.php?topic=373881>

### Question 541

A geologist working in an area finds gravels with gentle dips of about 5 degrees. She finds a large outcrop where these gravels are overlain by tephra with prominent layers that dip 35-40 degrees. What is the history of this area?

- A) After the gravel was deposited, a large composite cone was built on the area.
- B) Before the gravel was deposited, a cinder cone formed in this area.
- C) After the gravel was deposited, a cinder cone formed in the area.
- D) Basalt flows formed after a series of gravels were deposited, covering the local terrain, and built a shield volcano.

Answer: <https://biology-forums.com/index.php?topic=373402>

### Question 542

Temperature and precipitation are the most important elements in describing a climate because \_\_\_\_\_.

- A) they are the major indicators of what is happening in the atmosphere
- B) they are the elements that have the greatest impact on the hydrosphere
- C) they are the elements that have the greatest impact on humans
- D) they are what controls our climate
- E) they are the major indicators of what is happening in the biosphere

Answer: <https://biology-forums.com/index.php?topic=374231>

### Question 543

Hurricanes are natural disasters. Which branch of the Earth sciences studies the impact of this phenomenon on coastal environments?

- A) Meteorology
- B) Geology
- C) Oceanography
- D) Astronomy

Answer: <https://biology-forums.com/index.php?topic=372483>

### Question 544

\_\_\_\_\_ is composed of alternating bands of light and dark silicate minerals.

- A) Phyllite
- B) Gneiss
- C) Marble
- D) Mica schist

Answer: <https://biology-forums.com/index.php?topic=372833>

### Question 545

Which one of the following concerning mid-ocean ridges is false?

- A) Terrigenous sediment coverings are very thin or absent.
- B) They are sites for submarine eruptions of basaltic lava.
- C) They are where young lithosphere is added to the edges of spreading, oceanic plates.
- D) Sediments include thick siliceous ooze deposits and sandy turbidite beds.

Answer: <https://biology-forums.com/index.php?topic=373732>

### Question 546

One significant difference between oceanic and continental crust in terms of the long term evolution of the earth's surface is that \_\_\_\_\_.

- A) continental crust is more uniform in composition than oceanic crust
- B) oceanic crust contains more radioactive elements that contribute to the heating of the earth.
- C) oceanic crust is less dense than continental crust
- D) continental crust is harder to subduct than oceanic crust
- E) oceanic crust preserves a history of ancient deformation better than continental crust

Answer: <https://biology-forums.com/index.php?topic=373629>

### Question 547

wave height wave period wave refraction fetch

Answer: <https://biology-forums.com/index.php?topic=373909>

### Question 548

Glassy igneous rocks form when magma cools too fast for mineral grains to grow.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372859>

### Question 549

Which of the following best describe the E soil horizon?

- A) leaching zone
- B) erosion zone
- C) residual zone
- D) regolith zone

Answer: <https://biology-forums.com/index.php?topic=372919>

### Question 550

\_\_\_\_\_ refers to the bright head of a comet.

- A) Lira
- B) Lima
- C) Toma
- D) Coma

Answer: <https://biology-forums.com/index.php?topic=374444>

### Question 551

Hurricanes and tornados are natural disasters. What branch of the Earth sciences studies the origin of these phenomena?

- A) Meteorology
- B) Geology
- C) Oceanography
- D) Astronomy

Answer: <https://biology-forums.com/index.php?topic=372482>

### Question 552

What term denotes a glacial valley that was partly flooded as sea level rose?

Answer: <https://biology-forums.com/index.php?topic=373216>

### Question 553

Who wrote the book entitled Of the Revolutions of Celestial Spheres (De Revolutionibus)?

- A) Sir Isaac Newton
- B) Johannes Kepler
- C) Nicolaus Copernicus
- D) Tycho Brahe
- E) Galileo

Answer: <https://biology-forums.com/index.php?topic=374338>

### Question 554

\_\_\_\_\_ is the maximum possible damage designation on the Mercalli scale.

- A) 10
- B) 3
- C) XII
- D) X

Answer: <https://biology-forums.com/index.php?topic=373313>

### Question 555

Which radioactive decay used for radiometric dating is not an isotope that was generated during nuclear synthesis in the star that went supernova and its products became our solar system?

- A)  $^{147}\text{Sm}$
- B)  $^{14}\text{C}$
- C)  $^{40}\text{K}$
- D)  $^{238}\text{U}$

Answer: <https://biology-forums.com/index.php?topic=373563>

### Question 556

The term drift \_\_\_\_\_.

- A) means any sediments of glacial origin
- B) refers only to alpine glaciers
- C) is synonymous with the term till
- D) refers only to moraines

Answer: <https://biology-forums.com/index.php?topic=373183>

### Question 557

quartz olivine feldspar calcite

Answer: <https://biology-forums.com/index.php?topic=372649>

### Question 558

Human ancestors developed the tendency to walk on two legs instead of four in order to accommodate \_\_\_\_\_.

- A) climbing trees in the forests
- B) running across hot ash beds in Tanzania
- C) riding elephants
- D) hunting and gathering food in grasslands
- E) picking fruit

Answer: <https://biology-forums.com/index.php?topic=373670>

### Question 559

Briefly discuss the various motions of Earth. What motion is often mistakenly credited for causing seasons here on Earth? How are these motions related (if at all) to the modern calendar that we use today?

Answer: <https://biology-forums.com/index.php?topic=374394>

### Question 560

Advection fogs form when warm, moist air moves over a cool surface so this type of fog is likely to be common in \_\_\_\_\_.

- A) the western coast of the U.S. where the ocean water is usually cooler than the air
- B) cities where moisture is added to the air by watering systems
- C) desert areas near water where air is heated during the day and then the ground cools quickly

D) the eastern coast of the U.S. where the ocean water is usually warmer than the air

Answer: <https://biology-forums.com/index.php?topic=374056>

### Question 561

At the base of a glacier, the ice moves by \_\_\_\_\_.

- A) sliding and ductile flow
- B) fracturing and sliding
- C) fracturing
- D) ductile flow and fracturing

Answer: <https://biology-forums.com/index.php?topic=373173>

### Question 562

A sidereal day is defined as \_\_\_\_\_.

- A) 24 hours in a day
- B) 24 hours at Greenwich, England
- C) the time between periods when the sun is at the exact same height in the sky, for example, noon
- D) the time for one complete revolution of the earth relative to the celestial reference

Answer: <https://biology-forums.com/index.php?topic=374359>

### Question 563

granite basalt diorite gabbro

Answer: <https://biology-forums.com/index.php?topic=372843>

### Question 564

Which one of the following statements is believed to be true of comets?

- A) They have highly elliptical orbits around the Sun.
- B) They are composed mostly of dense rock particles.
- C) Their bright, glowing appearance in the night sky is due to frictional heating in Earth's atmosphere.
- D) They may gain slightly in mass with each orbit around the Sun.

Answer: <https://biology-forums.com/index.php?topic=374443>

### Question 565

As a deep-water wave enters shallow water, the wave slows down and rotates toward being parallel with the shoreline. This process is known as \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373918>

### Question 566

The two types of polar climates are the \_\_\_\_\_ climate (ET) and the \_\_\_\_\_ climate (EF).

Answer: <https://biology-forums.com/index.php?topic=374311>

### Question 567

A north south oriented shoreline has land to the east and the major storm waves arrive from the southwest. A headland abuts westward along the shoreline and exposes a distinctive black basalt that is rapidly eroded by waves pounding the coast. Where would you expect to find black sand derived from this headland?

- A) on the beach to the north of the headland
- B) only in pocket beaches along the headland
- C) on the beach to the south of the headland
- D) immediately offshore of the headland

Answer: <https://biology-forums.com/index.php?topic=373872>

### Question 568

Particle size is the primary basis for distinguishing among various detrital sedimentary rocks.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372867>

### Question 569

Which one of the following is an important, mechanical weathering process for enlarging fractures and extending them deeper into large boulders and bedrock?

- A) hydrologic cycling
- B) eluviation
- C) frost wedging
- D) oxidation

Answer: <https://biology-forums.com/index.php?topic=372906>

### Question 570

amorphous bladed tabular cubic

Answer: <https://biology-forums.com/index.php?topic=372648>

### Question 571

Which of the following refers to the investigative process by which geologists identify and match sedimentary strata and other rocks of the same ages in different areas?

- A) correlation
- B) strata indexing
- C) super matching
- D) cross-access dating

Answer: <https://biology-forums.com/index.php?topic=373550>

### Question 572

Because lenses act like a prism to separate the colors of the spectrum, they produce a troublesome effect known as \_\_\_\_\_.

- A) the atmospheric effect
- B) light dispersion
- C) focal distortion
- D) poor seeing
- E) chromatic aberration

Answer: <https://biology-forums.com/index.php?topic=374483>

### Question 573

A cT air mass is \_\_\_\_\_.

- A) cold and humid
- B) cold and dry
- C) warm and dry
- D) warm and humid

Answer: <https://biology-forums.com/index.php?topic=374168>

### Question 574

Coal beds originate in \_\_\_\_\_.

- A) channels of fast-moving streams
- B) deep, marine basins below wave action
- C) freshwater coastal swamps and bogs
- D) shallow lakes in a dry, desert region

Answer: <https://biology-forums.com/index.php?topic=372739>

### Question 575

A thrust fault increases the thickness of the crust as it moves toward a continental interior in a mountain belt; yet the crust beyond the mountain front stays the same thickness. Isostasy would suggest that the area at the mountain front, where the thrust emerges, should \_\_\_\_\_ over time.

- A) subside
- B) uplift
- C) near sea level
- D) stay the same

Answer: <https://biology-forums.com/index.php?topic=373490>

### Question 576

\_\_\_\_\_ magma is the most abundant type of magma erupted on Earth.

- A) Pegmatitic
- B) Andesitic
- C) Basaltic
- D) Granitic

Answer: <https://biology-forums.com/index.php?topic=373383>

### Question 577

When are upper air winds fastest?

- A) whenever the temperature gradient is weak
- B) in winter
- C) in summer
- D) These winds maintain roughly the same speeds throughout the year.

Answer: <https://biology-forums.com/index.php?topic=374127>

### Question 578

Looking at a world map of temperatures, you would see that isotherms deflected toward the poles over seas are an indication of \_\_\_\_\_.

- A) horizontal currents
- B) diving currents
- C) warm currents
- D) cold currents
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=373990>

### Question 579

Classic Newtonian reflector telescopes use a mirror shaped like \_\_\_\_\_.

- A) a concave spherical surface
- B) a hyperbola
- C) a convex spherical surface
- D) a parabola

Answer: <https://biology-forums.com/index.php?topic=374486>

### Question 580

Burial of rocks increases the confining pressure so that deeply buried rocks are more likely to \_\_\_\_\_ than shallow rocks.

- A) fracture
- B) fold
- C) shear
- D) deform

Answer: <https://biology-forums.com/index.php?topic=373449>

### Question 581

The angular distance north or south of the celestial equator is called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374385>

### Question 582

\_\_\_\_\_ refers to the total amount of dissolved materials in water.

Answer: <https://biology-forums.com/index.php?topic=373818>

### Question 583

The texture of an igneous rock \_\_\_\_\_.

- A) is caused by leaching
- B) is controlled by the composition of magma
- C) records the rock's cooling history
- D) determines the color of the rock

Answer: <https://biology-forums.com/index.php?topic=372712>

### Question 584

Which of the following characterizes the history of impacts on Earth as deduced by impact history on other terrestrial planets?

- A) Impacts continued at a fairly constant rate throughout the 4.5 billion year history of the solar system.
- B) Impact rates were very high in the early history of the earth, but dropped off after about the first 1 billion years of Earth history to a nearly constant rate since that time.
- C) Impacts were more intense in the early history of the earth but have continued at about half the rate of bombardment since about 4.4 billion years ago.
- D) All major impacts occurred in the first 100 million years after the solar system formed.

Answer: <https://biology-forums.com/index.php?topic=374402>

### Question 585

The eye of a hurricane is \_\_\_\_\_.

- A) the portion with the highest wind speeds
- B) the area of most intense rainfall
- C) warmer than the rest of the storm
- D) along the leading edge of the storm

Answer: <https://biology-forums.com/index.php?topic=374207>

### Question 586

The study of spectroscopy was begun by \_\_\_\_\_.

- A) George Hale
- B) Sir Isaac Newton
- C) Galileo
- D) Albert Einstein
- E) Niels Bohr

Answer: <https://biology-forums.com/index.php?topic=374472>

### Question 587

Carbonates always include \_\_\_\_\_.

- A) SiO<sub>4</sub>-4
- B) Cl-1, F-1, or Br-1
- C) SO<sub>4</sub>-2
- D) CO<sub>3</sub>-2

Answer: <https://biology-forums.com/index.php?topic=372631>

### Question 588

Which type of plate margin is characterized by volcanos that include basalt, andesite, dacite and rhyolite?

- A) transform faults
- B) spreading ridges
- C) convergent plate margins
- D) hot spots

Answer: <https://biology-forums.com/index.php?topic=373431>

### Question 589

Air may best be described as \_\_\_\_\_.

- A) a mixture
- B) an element
- C) a compound
- D) none of these

Answer: <https://biology-forums.com/index.php?topic=373933>

### Question 590

Lignite and bituminous coals are sedimentary rocks.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372863>

### Question 591

The Montreal Protocol is a UN agreement that is intended to \_\_\_\_\_.

- A) reduce CO<sub>2</sub> in the atmosphere
- B) reduce air pollution globally
- C) reduce CFCs in the atmosphere
- D) make everyone feel good about the environment without really fixing anything
- E) reduce ozone in the atmosphere

Answer: <https://biology-forums.com/index.php?topic=373942>

### Question 592

As an erosional process, how is mass wasting unique compared to wind, water, and ice?

- A) Mass wasting does not require a transporting medium.
- B) Mass wasting affects particles of all sizes whereas the others affect only smaller particles.
- C) Mass wasting affects much larger geographic areas than does wind, water, and ice.
- D) All of the above make mass wasting unique compared to wind, water, and ice.

Answer: <https://biology-forums.com/index.php?topic=372927>

### Question 593

Ozone filters out most of the \_\_\_\_\_ radiation in sunlight.

- A) gamma
- B) microwave
- C) infrared
- D) ultraviolet

Answer: <https://biology-forums.com/index.php?topic=373937>

### Question 594

Today, glaciers cover approximately \_\_\_\_\_ percent of the earth's surface.

- A) 1
- B) 50
- C) 30
- D) 10

Answer: <https://biology-forums.com/index.php?topic=373170>

### Question 595

Shield areas in continental interiors are characterized by \_\_\_\_\_.

- A) linear chains of mountains less than 100 million years old
- B) flat river valleys that cut through older mountain ranges
- C) ancient coastal regions that have become abandoned and eroded
- D) flat areas that include rocks older than 1 billion years old

Answer: <https://biology-forums.com/index.php?topic=372526>

### Question 596

Rare, but complete preservation of fossils occurs in \_\_\_\_\_.

- A) limestone
- B) shale
- C) mudstone
- D) amber

Answer: <https://biology-forums.com/index.php?topic=373545>

### Question 597

How are carbon dioxide and other trace gases thought to be potentially related to global warming? Are the levels of these gases in our atmosphere increasing or decreasing and why are levels changing? Finally, what are some of the observed climatic trends and possible consequences associated with global warming?

Answer: <https://biology-forums.com/index.php?topic=374318>

### Question 598

What physical property denotes the color of a powdered mineral?

Answer: <https://biology-forums.com/index.php?topic=372685>

### Question 599

\_\_\_\_\_ would have the largest capacity to naturally remove sewage pollutants.

- A) Limestone with solution channels and caverns
- B) Well-sorted, coarse gravel
- C) Fractured granite
- D) Slightly clayey sand

Answer: <https://biology-forums.com/index.php?topic=373112>

### Question 600

One magma can produce several different igneous rocks having different mineral compositions.

- A) [b]True[/b]

B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372857>

### Question 601

Evidence that tensile stresses are actively pulling the lithosphere apart in an ocean ridge system is given by \_\_\_\_\_.

- A) the width of the ridge system
- B) the existence of a rift valley in a ridge system
- C) the height of the ridge system
- D) the lack of thick sediments on the ridge system sea floor

Answer: <https://biology-forums.com/index.php?topic=373251>

### Question 602

The main objection to Wegner's theory of Continental Drift was \_\_\_\_\_.

- A) clear evidence of land bridges, like the one connecting Alaska and eastern Russia, clearly exist and explain most of Wegner's observations without Continental Drift.
- B) Wegner's gravitational mechanism for the movement of continents would also stop the Earth's rotation, which has not happened.
- C) the tracks of the moving continents could not be identified on the ocean floor.
- D) the ocean basins show no evidence of opening and closing.

Answer: <https://biology-forums.com/index.php?topic=373236>

### Question 603

The belt of constellations through which all the planets move is called the \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374383>

### Question 604

A north wind blows from the \_\_\_\_\_ to the \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374161>

### Question 605

The phrase, "The present is the key to the past," refers to the doctrine of \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373580>

### Question 606

The most common reason that dew forms is \_\_\_\_\_.

- A) plants give up water to the atmosphere when the temperature decreases
- B) radiant cooling of the ground and adjacent air in the evening
- C) a rapid increase in water vapor in the air during the night
- D) fast heating of the atmosphere when the sun first comes up in the morning

Answer: <https://biology-forums.com/index.php?topic=374023>

### Question 607

Hubble's law states that galaxies are receding from us at a speed that is proportional to their \_\_\_\_\_.

- A) orientation
- B) mass
- C) volume
- D) distance

Answer: <https://biology-forums.com/index.php?topic=374584>

### Question 608

The two types of dry climates are \_\_\_\_\_, or desert, and \_\_\_\_\_, or steppe.

Answer: <https://biology-forums.com/index.php?topic=374306>

### Question 609

Briefly explain how Plate Tectonic Theory can explain evidence that some tropical regions have experienced glaciation in the past but cannot explain the Quaternary Ice Ages.

Answer: <https://biology-forums.com/index.php?topic=373227>

### Question 610

Which of these men formulated the Law of Universal Gravitation?

- A) Nicolaus Copernicus
- B) Galileo
- C) Johannes Kepler
- D) Tycho Brahe
- E) Sir Isaac Newton

Answer: <https://biology-forums.com/index.php?topic=374340>

### Question 611

Which method best describes how the geologic time scale, which was developed through fossil successions in sedimentary rocks, was tied to absolute time even though sedimentary rocks cannot usually be dated directly by geochronology?

- A) Geologists estimated time through sedimentation rates, then using those rates together with maximum ages of underlying rocks that are datable, to extract a time interval and rate for deposition of the sedimentary rocks.
- B) Geologists recently developed a technique to directly date sedimentary rocks, solving the problem.
- C) Geologists realized that there were many other cosmogenic isotopes besides Carbon 14 that allow the dating of sediments, and this has allowed the dating of sedimentary rocks.
- D) Geologist used things like volcanic ash beds, interbedded volcanic rocks, cross-cutting intrusive igneous rocks, etc. in sedimentary sections with a known fossil succession, and this age was extrapolated globally.

Answer: <https://biology-forums.com/index.php?topic=373577>

### Question 612

The classification of air as stable or unstable is based on \_\_\_\_\_.

- A) motion
- B) state
- C) temperature
- D) humidity

Answer: <https://biology-forums.com/index.php?topic=374034>

### Question 613

Flat, stable areas of continental crust tend to be located \_\_\_\_\_.

- A) near desert regions
- B) along coastlines
- C) in areas that receive large amounts of rainfall
- D) in the interior of continents

Answer: <https://biology-forums.com/index.php?topic=372524>

### Question 614

Deserts such as the Great Basin, Gobi, and Takla Makan are examples of \_\_\_\_\_.

- A) subtropical deserts
- B) monsoon deserts
- C) chinook deserts
- D) rainshadow deserts

Answer: <https://biology-forums.com/index.php?topic=374031>

### Question 615

You are watching the local weatherman on TV. You live in mid-latitudes in North America, and the weatherman says the winds aloft are blowing toward the northwest. Is this reasonable?

- A) Yes, southeast winds are common at mid latitudes in North America.
- B) Yes, northwest winds are common at mid latitudes in North America.
- C) No, mid-latitude winds always move from east to west because of the Coriolis force.
- D) No, Northern Hemisphere winds aloft always move from west to east because of the Coriolis force.

Answer: <https://biology-forums.com/index.php?topic=374113>

### Question 616

Important weather phenomena typically occurs in the \_\_\_\_\_.

- A) troposphere
- B) mesosphere
- C) thermosphere
- D) stratosphere
- E) all of the above

Answer: <https://biology-forums.com/index.php?topic=373950>

### Question 617

One reason that Catastrophism was popular was \_\_\_\_\_.

- A) Ussher's estimated age of the earth required catastrophic events to form mountains and canyons
- B) there were many real catastrophes, like earthquakes and volcanic eruptions, to support the Catastrophism idea
- C) everyone loves a disaster and as a result, the hypothesis that supported disasters was a favorite
- D) Hutton's observations of great geologic time could not explain the rise of mountains or formation of deep canyons

Answer: <https://biology-forums.com/index.php?topic=373514>

### Question 618

This scientist was the first to use the telescope in astronomy.

- A) Tycho Brahe
- B) Galileo
- C) Nicolaus Copernicus
- D) Sir Isaac Newton

Answer: <https://biology-forums.com/index.php?topic=374335>

### Question 619

What two chemical elements are most abundant in the deep interior of the earth?

- A) hydrogen and helium
- B) iron and magnesium
- C) magnesium and oxygen
- D) silicon and oxygen

Answer: <https://biology-forums.com/index.php?topic=372520>

### Question 620

lithosphere atmosphere hydrosphere biosphere

Answer: <https://biology-forums.com/index.php?topic=374291>

### Question 621

Following the reptilian extinctions at the close of the Mesozoic, two groups of mammals, the marsupials and \_\_\_\_\_, evolved.

- A) placentals
- B) eukaryotes
- C) stromatolites
- D) trilobites
- E) cephalopods

Answer: <https://biology-forums.com/index.php?topic=373673>

### Question 622

\_\_\_\_\_ is the major dissolved volatile constituent in both magmas and volcanic gases.

- A) Carbon monoxide
- B) Water
- C) Hydrogen chloride
- D) Methane

Answer: <https://biology-forums.com/index.php?topic=373371>

### Question 623

What would happen if the temperature were cooled to 15°C?

- A) increase in relative humidity and condensation of 4 grams of water
- B) increase in relative humidity and evaporation of 4 grams of water
- C) decrease in relative humidity and evaporation of 4 grams of water
- D) decrease in relative humidity and condensation of 4 grams of water

Answer: <https://biology-forums.com/index.php?topic=374021>

### Question 624

\_\_\_\_\_, a moon orbiting Jupiter, has an unusually smooth, uncratered, ice-covered surface.

- A) Miranda
- B) Phobos

- C) Titan
- D) Europa

Answer: <https://biology-forums.com/index.php?topic=374429>

### Question 625

Humans are not a part of the Earth System.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372571>

### Question 626

In much of what is now Canada, glaciers covered the land as little as 12,000 years ago and glacial erosion scoured the land surface leaving very thin soil or bare rock over large areas. The Midwestern United States was also covered in ice at this time, yet this area contains some of the richest farm land in the world with thick soils. These soils are formed on glacial sediments and windblown dust deposits from the ice age. Why are the soil conditions between these areas so different when the soils are virtually identical in age?

- A) Sea level rose following the ice age and covered the Midwest with an inland sea, rapidly forming soil.
- B) It is much colder in Canada so chemical weather is much slower; thus and soils have not had time to form.
- C) The Midwestern soils are transported soils with soil development on materials that were already loose, unconsolidated materials.
- D) The Midwestern U.S. is much flatter than Canada, allowing soils to develop more quickly.

Answer: <https://biology-forums.com/index.php?topic=372918>

### Question 627

Oceanography is the study of the oceans and geology is the study of the earth, so what is meteorology?

- A) the study of the Sun's impact on the upper atmosphere
- B) the study of how to be a TV newscaster
- C) the study of the atmosphere
- D) the study of meteors

Answer: <https://biology-forums.com/index.php?topic=372479>

### Question 628

The heaviest element produced by nuclear fusion in a young star is \_\_\_\_\_.

- A) nickel
- B) iron
- C) helium
- D) oxygen
- E) sodium

Answer: <https://biology-forums.com/index.php?topic=373607>

### Question 629

The Mercalli Scale is a scale from \_\_\_\_\_.

- A) 1 to 10 that rates the energy released by an earthquake
- B) I to XII that rates the structural damage due to an earthquake
- C) I to X that rates the total energy released during the main quake and all aftershocks
- D) 1 to 12 that rates the energy required for faulting to occur

Answer: <https://biology-forums.com/index.php?topic=373314>

### Question 630

The most prominent features on the ocean floor are the \_\_\_\_\_.

- A) oceanic ridges
- B) lava plateaus
- C) deep-ocean trenches
- D) seamounts

Answer: <https://biology-forums.com/index.php?topic=372532>

### Question 631

Fractures in rock with no conspicuous offset are called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373498>

### Question 632

The upper part of the \_\_\_\_\_ has the approximate composition of peridotite.

Answer: <https://biology-forums.com/index.php?topic=373358>

### Question 633

What is the value of long range earthquake prediction?

Answer: <https://biology-forums.com/index.php?topic=373367>

### Question 634

Which of the following factors help determine whether a volcanic eruption will be violent or relatively quiescent?

- A) composition of the magma
- B) amount of dissolved gas in the magma
- C) temperature of the magma
- D) all of these

Answer: <https://biology-forums.com/index.php?topic=373372>

### Question 635

The very fine-sized, clay mineral particles move downward from the E to the B-horizon of some soils. What is this process called?

Answer: <https://biology-forums.com/index.php?topic=373027>

### Question 636

A(n) \_\_\_\_\_ is a volcanic mountain, built up from the seafloor that never reached the sea surface.

Answer: <https://biology-forums.com/index.php?topic=373765>

### Question 637

melting condensation sublimation evaporation

Answer: <https://biology-forums.com/index.php?topic=374073>

### Question 638

Which of the following minerals is a silicate?

- A) feldspar
- B) hematite
- C) calcite
- D) halite

Answer: <https://biology-forums.com/index.php?topic=372636>

### Question 639

One of the primary goals of geology is to \_\_\_\_\_.

- A) understand the role of plate tectonics in the earth's evolution
- B) determine the role of meteorites in the decline of species over time
- C) identify all of the rocks on the surface of the earth
- D) develop a comprehensive relationship between fossils and geologic formations
- E) understand the history of the earth

Answer: <https://biology-forums.com/index.php?topic=373517>

### Question 640

All of the following are factors that affect rates of weathering except for \_\_\_\_\_.

- A) surface area
- B) rock characteristics
- C) geologic age of earth materials
- D) climate

Answer: <https://biology-forums.com/index.php?topic=372892>

### Question 641

An important condition for the formation of coal is \_\_\_\_\_.

- A) incomplete decomposition of organic matter due to a lack of oxygen
- B) abundant plant and animal life in a region
- C) acid rich waters that reduce the organic matter to pure carbon
- D) decomposition of organic matter with abundant oxygen

Answer: <https://biology-forums.com/index.php?topic=372732>

### Question 642

Which of the following is not part of the climate system?

- A) hydrosphere
- B) cryosphere
- C) gyrosphere
- D) geosphere
- E) biosphere

Answer: <https://biology-forums.com/index.php?topic=374229>

### Question 643

The \_\_\_\_\_ is (are) characterized by terrane accretion that has been active throughout most of Mesozoic and Cenozoic time.

- A) western margin of Africa
- B) western margin of North America
- C) western margin of the Mid-Atlantic Ridge
- D) southern margins of India and Australia

Answer: <https://biology-forums.com/index.php?topic=373483>

### Question 644

A(n) \_\_\_\_\_ is a circular to elliptical, closed depression in karst areas.

Answer: <https://biology-forums.com/index.php?topic=373140>

### Question 645

The release of water vapor to the atmosphere by plants is called \_\_\_\_\_.

- A) degassing
- B) evaporation
- C) transpiration
- D) infiltration

Answer: <https://biology-forums.com/index.php?topic=373044>

### Question 646

Feldspars commonly decompose during weathering to clay minerals, silica, and soluble constituents.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372976>

### Question 647

Which one of the following statements concerning mechanical weathering is not true?

- A) allows for faster rates of chemical weathering
- B) reduces grain sizes of rock particles
- C) is important in the formation of talus slopes
- D) involves a major change in the mineral composition of the weathered material

Answer: <https://biology-forums.com/index.php?topic=372901>

### Question 648

You have a fancy beach house in the east coast of Florida. The main wave source is to the northeast. Your neighbor to the south of you is having problems with beach erosion and storm waves often come under his house. So he decides to build a groin and he tells you it is for the benefit of the neighborhood. What should you respond to his comment?

- A) Don't worry, be happy, you're on the beach. It won't hurt anything.
- B) Ask for clarification of what type of material he will use, to make sure it is strong enough.
- C) Thanks buddy, I was thinking about doing that myself but you just saved me the money.
- D) Tell him no way. He is going to destroy the beach in front of your house. If he proceeds you might need to find a lawyer.

Answer: <https://biology-forums.com/index.php?topic=373896>

### Question 649

When warm moist air moves over a cold surface, \_\_\_\_\_ fog may result.

Answer: <https://biology-forums.com/index.php?topic=374090>

### Question 650

\_\_\_\_\_ describes the total sediment load transported by a stream.

- A) Discharge
- B) Competence
- C) Capacity
- D) Hydro-load factor

Answer: <https://biology-forums.com/index.php?topic=373066>

### Question 651

Human evolution takes place during the \_\_\_\_\_ period of the \_\_\_\_\_ era.

Answer: <https://biology-forums.com/index.php?topic=373683>

### Question 652

Climatologist define a "dry climate" as a climate in which \_\_\_\_\_.

- A) precipitation is blocked by high mountains
- B) precipitation is less than expected evaporation
- C) less than 25 cm (10 in) of rain falls in a year
- D) All of the answers are correct.

Answer: <https://biology-forums.com/index.php?topic=373198>

### Question 653

Why would a large concrete producing company be interested in the sea bed?

- A) as a source of lime from sea shells
- B) as a source of mud to mix with limestone to make Portland cement
- C) as a source of sand and gravel
- D) They can rape the sea bed without being prosecuted like they would in operating a quarry or gravel pit improperly.

Answer: <https://biology-forums.com/index.php?topic=373753>

### Question 654

Which of the following statements best describes the big Hawaiian volcanoes?

- A) They are situated in the interior of a large, Pacific plate above a hot spot deep in the mantle.
- B) They lie directly above a transform plate boundary that cuts deeply into the mantle.
- C) They lie directly above an active subduction zone where the Pacific plate is sinking into the mantle.
- D) They lie along the crest of the East Pacific Rise, a mid-ocean ridge or spreading center.

Answer: <https://biology-forums.com/index.php?topic=373428>

### Question 655

In the movie "Volcano" basaltic lava flows are shown running down flat streets at speeds faster than humans could run. From your knowledge of magma viscosity, is this realistic?

- A) Yes, the viscosity of basaltic magma is similar to water so it would flow at comparable rates.
- B) No, the viscosity of basaltic magma is much higher than water, and thus, would flow much slower than water.
- C) There is no way of knowing because basaltic magmas can have viscosities similar to water or higher depending on temperature and fluids, and thus there isn't enough information.
- D) No, the viscosity of basaltic magma is much higher than water, and thus, would flow much faster than water.

Answer: <https://biology-forums.com/index.php?topic=373380>

### Question 656

The true shape of the planetary orbits was discovered by \_\_\_\_\_.

- A) Johannes Kepler
- B) Sir Isaac Newton
- C) Tycho Brahe
- D) Galileo
- E) Nicolaus Copernicus

Answer: <https://biology-forums.com/index.php?topic=374337>

### Question 657

The major rivers in the U.S., including the Colorado and Rio Grande, originate in mountainous regions with significant contributions from snow melt and then cross arid regions before supplying the water needs for several cities in the U.S. and Mexico. Discuss the potential impact of climate change on the water supplies.

Answer: <https://biology-forums.com/index.php?topic=373226>

### Question 658

Quartz forms at a lower temperature than olivine.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372675>

### Question 659

Which of the following is not a type of plate boundary?

- A) transform
- B) divergent
- C) convergent
- D) hot spot

Answer: <https://biology-forums.com/index.php?topic=373238>

### Question 660

The lowest point on earth is in the \_\_\_\_\_ Ocean.

Answer: <https://biology-forums.com/index.php?topic=373758>

### Question 661

Engineers refer to any loose material on the surface of the Earth as soil. How does this differ from the definition used in Earth sciences?

- A) Earth scientists use the term soil only for the organic part of the surface materials.
- B) Earth scientists only use the word soil to refer to the inorganic part of weathered, surface materials.
- C) There is no difference, the definition is the same.
- D) An engineer's "soil" is equivalent to what Earth scientists call regolith; soil has a more specific meaning.

Answer: <https://biology-forums.com/index.php?topic=372912>

### Question 662

All minerals exhibit cleavage.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372666>

### Question 663

Volcanoes are generally not preserved in the geologic rock record because the upper part of the volcano is eroded away. However, the igneous rocks associated with volcanoes are often found preserved in the rock record as layers of volcanic rock and associated intrusions. How could you infer what type of volcano erupted in a given area based on the type of volcanic deposits? Give specific examples and briefly discuss if some materials may be linked to different types of volcanoes.

Answer: <https://biology-forums.com/index.php?topic=373440>

### Question 664

What is the name for the very large pluvial lake that once existed in northwestern Utah?

Answer: <https://biology-forums.com/index.php?topic=373217>

### Question 665

The largest percentage of total magma production on earth occurs at what plate tectonic setting?

- A) hot spots like Hawaii
- B) transform plate margins
- C) convergent plate margins
- D) spreading ridges

Answer: <https://biology-forums.com/index.php?topic=373426>

### Question 666

A land breeze usually originates during the \_\_\_\_\_.

- A) day and flows toward the land
- B) evening and flows toward the water
- C) evening and flows toward the land
- D) day and flows toward the water

Answer: <https://biology-forums.com/index.php?topic=374136>

### Question 667

You are walking north across dipping beds in sedimentary rocks. You walk across 200m of rocks with a relatively constant dip of 20 degrees to the south. Suddenly you come to beds with lower dip that become flat lying, and then dip north across a horizontal distance of only about 30m. As you walk on the beds become more steeply dipping until they dip almost 80 degrees to the north. You walk across these steeply dipping beds for 40m, and then beds return to a south dip of about 20 degrees. What kind of structure(s) did you just walk across? (A sketch may help you solve this problem.)

- A) an asymmetric anticline and syncline
- B) an asymmetric anticline
- C) a symmetric anticline
- D) an asymmetric syncline
- E) a symmetric syncline

Answer: <https://biology-forums.com/index.php?topic=373454>

### Question 668

Which of these instruments is not used to measure air pressure?

- A) mercurial barometer
- B) barograph
- C) aneroid barometer
- D) anemometer

Answer: <https://biology-forums.com/index.php?topic=374099>

### Question 669

A steep pressure gradient \_\_\_\_\_.

- A) produces strong winds
- B) would be depicted by widely spaced isobars
- C) is only possible in the tropics
- D) produces light winds

Answer: <https://biology-forums.com/index.php?topic=374108>

### Question 670

Compare and contrast the patterns of life in the Paleozoic Era to the Mesozoic Era. What are the major differences between these two eras? Are there similarities or similar trends?

Answer: <https://biology-forums.com/index.php?topic=373701>

### Question 671

When water is pumped from a well, a depression is often produced in the water table. Such a depression is a(n) \_\_\_\_\_.

- A) cone of depression
- B) perched water table
- C) artesian well
- D) pumping dimple

Answer: <https://biology-forums.com/index.php?topic=373107>

### Question 672

Horn Island is a small island about 10 km offshore from Biloxi, Mississippi, that is about 20 km long and 1 km wide. What are features like Horn Island called?

- A) reefs
- B) sand spits
- C) barrier islands
- D) beaches

Answer: <https://biology-forums.com/index.php?topic=373884>

### Question 673

The former late Paleozoic supercontinent is known as \_\_\_\_\_.

- A) Pandomonia
- B) Panatopia
- C) Pangaea
- D) Pancakea

Answer: <https://biology-forums.com/index.php?topic=373231>

### Question 674

Exhumed basins contain \_\_\_\_\_ rocks in the center of the structure and domes contain \_\_\_\_\_ rocks in the center.

Answer: <https://biology-forums.com/index.php?topic=373496>

### Question 675

High air pressure systems are usually associated with \_\_\_\_\_.

- A) clear weather
- B) diverging winds
- C) descending air
- D) all of these

Answer: <https://biology-forums.com/index.php?topic=374122>

### Question 676

Which of the following is not a product of the chemical weathering of potassium feldspar?

- A) potassium ions
- B) clay
- C) iron oxide
- D) silica

Answer: <https://biology-forums.com/index.php?topic=372718>

### Question 677

A wintertime form of precipitation that consists of small ice particles is called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374091>

### Question 678

A(n) \_\_\_\_\_ system is one in which energy moves freely in and out, but no matter enters or leaves the system.

- A) feedback
- B) equilibrated
- C) open
- D) closed

Answer: <https://biology-forums.com/index.php?topic=372533>

### Question 679

Which of the following is not a significant factor in determining whether precipitation will soak into the ground or run off on the surfaces?

- A) vegetation
- B) lithology
- C) saturation level
- D) amount and duration of precipitation
- E) steepness of the slope

Answer: <https://biology-forums.com/index.php?topic=373047>

### Question 680

Deep soils are characteristic of tropical regions whereas thin rocky soils are characteristic of high latitudes. This is a natural demonstration that \_\_\_\_\_.

- A) humans living at high latitudes have destroyed the soils by bad farming practices
- B) chemical weathering rates are much higher in the tropics than high latitudes
- C) physical weathering and erosion rates are higher at high latitude, removing soil faster than it can form
- D) all of the high latitude regions lost their soil in recent times

Answer: <https://biology-forums.com/index.php?topic=372909>

### Question 681

Two weather stations lie along a latitude line. The eastern station records a pressure of 1021mb, the western station records 1015mb. The 1020 isobar is closest to which station?

Answer: <https://biology-forums.com/index.php?topic=374156>

### Question 682

spring tide flood tide neap tide tidal flat

Answer: <https://biology-forums.com/index.php?topic=373913>

### Question 683

Overall, this type of seismic wave is the most destructive.

- A) S wave
- B) P wave
- C) surface wave
- D) tsunami

Answer: <https://biology-forums.com/index.php?topic=373309>

### Question 684

Construction of a seawall produces an effect analogous to what kind of natural coastal feature?

- A) a barrier island, which forms an artificial beach at the front of the seawall
- B) a sea cliff producing erosion at the base of the sea cliff (i.e., the seawall)
- C) an island offshore breaking waves and trapping sand behind to form a tombolo
- D) a spit, formed by sand moving by longshore drift accumulating along the opening of a tidal channel

Answer: <https://biology-forums.com/index.php?topic=373895>

### Question 685

The most precise instrument for measuring wind speed is a \_\_\_\_\_.

- A) cup anemometer
- B) wind sock
- C) wet bulb/dry bulb thermometer
- D) wind vane

Answer: <https://biology-forums.com/index.php?topic=374141>

### Question 686

Folded limestones that are exposed high elevations in the Himalayas were originally deposited as sediments in a \_\_\_\_\_.

- A) late Paleozoic syncline north of the Tibetan Plateau.
- B) Cenozoic fault basin between Africa and Arabia.
- C) deep ocean trench along the southern margin of India.
- D) marine basin between India and Eurasia.

Answer: <https://biology-forums.com/index.php?topic=373484>

### Question 687

A geologist is working in an area with exposed sedimentary rocks and finds a well exposed sequence of stratified rocks. As he works through a thick sequence of limestone, he sees abundant large clam fossils that produce an interlocking texture suggesting a reef, but within the limestone section these clams disappear and the overlying limestone is made up primarily of fragments of corals. He now moves 50 km away and finds limestones interbedded with shales, and the limestones contain the same clam fossils he had seen previously 50 km away. As he continues through this section, the rocks become entirely limestone, and the clams disappear again with coral fossils above forming a reef structure. He concludes \_\_\_\_\_.

- A) clams have nothing to do with reefs, so he needs to go back to the first section to determine what he missed
- B) sea level must have risen abruptly in a great catastrophe to produce the coral fragments scattered over 50 km
- C) the horizon where the clams disappear occurred at the same time in the two sections when the clams went extinct
- D) this is impossible; the rocks are different at the same place the fossils change

Answer: <https://biology-forums.com/index.php?topic=373553>

### Question 688

Which magma type would generally have the lowest viscosity?

- A) rhyolite
- B) andesite
- C) dacite
- D) basalt

Answer: <https://biology-forums.com/index.php?topic=373374>

### Question 689

The dominant life forms during the Cenozoic Era were \_\_\_\_\_.

- A) prokaryotes and eukaryotes
- B) fish and amphibians
- C) mammals and angiosperms
- D) reptiles and gymnosperms

Answer: <https://biology-forums.com/index.php?topic=373671>

### Question 690

The change from thinking the continents are stationary to understanding that the outer layer of the earth moves slowly nearly all of the time occurred primarily because \_\_\_\_\_.

- A) we began to make global observations that required recognition that the continents and oceans had not always been in their current positions
- B) we improved our surveying instruments significantly
- C) we got space travel and could see the motions
- D) we had two world wars and learned a lot from them about the oceans that explained how continents moved

Answer: <https://biology-forums.com/index.php?topic=373230>

### Question 691

Latent heat that is the energy source for many storms can be transported by \_\_\_\_\_.

- A) water vapor
- B) dust
- C) carbon dioxide
- D) aerosols
- E) ozone

Answer: <https://biology-forums.com/index.php?topic=373936>

### Question 692

\_\_\_\_\_ climate is summerless with the average temperature of the warmest month below 10°C.

Answer: <https://biology-forums.com/index.php?topic=374301>

### Question 693

Evidence that Gondwana formed near the South Pole include \_\_\_\_\_.

- A) identification of cold temperature mammals
- B) evidence of continental glaciation
- C) paleomagnetic data from the region
- D) penguin fossils

Answer: <https://biology-forums.com/index.php?topic=373638>

### Question 694

The normal lapse rate in the troposphere is about \_\_\_\_\_ per kilometer.

- A) 6.5°C
- B) 9.5°C
- C) 1.5°C
- D) 3.5°C

Answer: <https://biology-forums.com/index.php?topic=373944>

### Question 695

\_\_\_\_\_ is the volume of voids or open space in a rock or unconsolidated material.

- A) Permeability
- B) Space yield
- C) Saturation index
- D) Porosity

Answer: <https://biology-forums.com/index.php?topic=373101>

### Question 696

Mass wasting, a process that often occurs between weathering and erosion, involves \_\_\_\_\_.

- A) the transport of material by water, wind, or ice
- B) the chemical dissolution of minerals due to water
- C) the transport of material due to gravity
- D) the mechanical breakdown of minerals due to exposure to the Sun and atmosphere

Answer: <https://biology-forums.com/index.php?topic=372889>

### Question 697

The atmosphere acquires most of its energy from \_\_\_\_\_.

- A) water vapor
- B) solar radiation

- C) the Earth's surface
- D) wind

Answer: <https://biology-forums.com/index.php?topic=373978>

### Question 698

Recall that the Hawaiian Islands are a large volcanic chain on the Pacific produced by the Pacific plate moving over a hot spot. When the Hawaiian islands reach a trench and they are accreted to a continental margin they would produce a(n) \_\_\_\_\_ comprised primarily of the rock type called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373502>

### Question 699

What is the Southern Oscillation?

- A) the intermittent switch from El Niño to La Niña conditions in the equatorial Pacific
- B) the weather pattern that changes tropical cyclone activity in the southern ocean
- C) the periodic intense cyclonic storms from Antarctica
- D) the 10-year cycle in winter storm activity in the temperate zone of the Southern Hemisphere

Answer: <https://biology-forums.com/index.php?topic=374144>

### Question 700

Large circular-moving currents of water within an ocean basin are called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373914>

### Question 701

The main difference between Bright and Dark Nebulae is \_\_\_\_\_.

- A) the composition of their gases
- B) their proximity to a black hole
- C) their proximity to a blue star
- D) the composition of their dust
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=374546>

### Question 702

the volcanoes of southwestern Alaska and the Aleutian Islands

Answer: <https://biology-forums.com/index.php?topic=373438>

### Question 703

The energy that drives surface ocean currents such as the Gulf Stream comes from \_\_\_\_\_.

- A) prevailing winds
- B) salinity variations
- C) Coriolis effect
- D) density differences

Answer: <https://biology-forums.com/index.php?topic=373839>

### Question 704

Sediment deposition occurs primarily in what part of a river system?

- A) the trunk stream
- B) the flood plain
- C) the head waters
- D) the drainage divide
- E) near the outlet

Answer: <https://biology-forums.com/index.php?topic=373050>

### Question 705

Which of the following is not a dark silicate mineral?

- A) pyroxene
- B) biotite
- C) amphibole
- D) quartz

Answer: <https://biology-forums.com/index.php?topic=372700>

### Question 706

Which of the following is not a system?

- A) soil, plants, rock, soil organisms, and animals
- B) the Pacific Ocean and the west coast of North America
- C) the study of minerals
- D) the biosphere

Answer: <https://biology-forums.com/index.php?topic=372536>

### Question 707

The first instrument to measure air pressure was the \_\_\_\_\_ barometer.

Answer: <https://biology-forums.com/index.php?topic=374150>

### Question 708

A rock outcrop exposes a layer of obsidian overlain by volcanic ash and a layer with fragments of lapilli. What rock composition and eruptive type fits this description?

- A) rhyolite erupted in violent pyroclastic eruptions
- B) basalt erupted from a cinder cone
- C) basalt flows and interbedded andesite deposited on a shield volcano
- D) andesite and basalt erupted from a stratovolcano

Answer: <https://biology-forums.com/index.php?topic=373389>

### Question 709

Prior to the formation of the protostar, \_\_\_\_\_.

- A) nuclear fusion does not occur
- B) nuclear fusion converts hydrogen to helium
- C) the temperature of the cloud is greater than 10,000 K
- D) the interstellar clouds are composed of equal amounts of hydrogen and helium

Answer: <https://biology-forums.com/index.php?topic=374567>

### Question 710

Most sediment is formed by \_\_\_\_\_.

- A) rocks that erode from the bottoms of glaciers
- B) the rapid distribution of material in a mountain stream
- C) the downhill movement of material during mass wasting
- D) settling out of a fluid

Answer: <https://biology-forums.com/index.php?topic=372715>

### Question 711

The \_\_\_\_\_ climate is also referred to as a Mediterranean climate.

Answer: <https://biology-forums.com/index.php?topic=374310>

### Question 712

Which one of the following statements is not true of tornadoes?

- A) associated with cumulonimbus clouds
- B) usually occur along the warm front of a mid-latitude cyclone
- C) occur most frequently in the spring of the year
- D) most common in the Midwest and Great Plains

Answer: <https://biology-forums.com/index.php?topic=374200>

### Question 713

oceanic ridge seafloor spreading arc volcanoes divergent

Answer: <https://biology-forums.com/index.php?topic=373283>

### Question 714

The Sun produces energy by converting \_\_\_\_\_ to energy.

Answer: <https://biology-forums.com/index.php?topic=374534>

### Question 715

The Köppen classification system for climate is widely used because \_\_\_\_\_.

- A) it is easy to use, and it covers the most populated areas of the earth and the oceans
- B) it is a highly evolved classification system that has been carefully refined and improved over more than a century so that it meets the complex needs of a modern society
- C) it uses easily obtained data, and the system is relatively unambiguous
- D) it uses easily obtained data and can cover a large area with a single classification
- E) it is easy to use, and it covers the most affluent parts of the world, including Europe, the U.S. and north Africa

Answer: <https://biology-forums.com/index.php?topic=374233>

### Question 716

Over time as erosion lowers the landscape a river valley will typically \_\_\_\_\_.

- A) become broader and lower gradient
- B) become steeper and discharge increases in the streams
- C) become narrower but with a lower gradient, entrenching meanders
- D) deepen into a bigger and bigger canyon, like the Grand Canyon

Answer: <https://biology-forums.com/index.php?topic=373087>

### Question 717

Mammals became the dominant land animals during the \_\_\_\_\_ era.

- A) Cenozoic
- B) Pleistocene
- C) Mesozoic
- D) Paleozoic
- E) Cretaceous

Answer: <https://biology-forums.com/index.php?topic=373669>

### Question 718

Which of the following pairs are likely products of weathering granite?

- A) clay and quartz
- B) olivine and pyroxene
- C) feldspar and mica
- D) sandstone and calcite

Answer: <https://biology-forums.com/index.php?topic=372717>

### Question 719

\_\_\_\_\_ refers to sediments deposited from streams.

Answer: <https://biology-forums.com/index.php?topic=373130>

### Question 720

Explain why crevasses only penetrate partway through a glacier. What limits their depth?

Answer: <https://biology-forums.com/index.php?topic=373221>

### Question 721

What are the basic differences between the disciplines of physical and historical geology?

- A) Physical geology involves the study of rock strata, fossils, and deposition in relation to plate movements in the geologic past; historical geology charts how and where the plates were moving in the past.
- B) Historical geology involves the study of rock strata, fossils, and geologic events, utilizing the geologic time scale as a reference; physical geology includes the study of how rocks form and of how erosion shapes the land surface.
- C) Physical geology is the study of fossils and sequences of rock strata; historical geology is the study of how rocks and minerals were used in the past.
- D) None of the above—physical geology and historical geology are essentially the same.

Answer: <https://biology-forums.com/index.php?topic=372476>

### Question 722

If you live in the Midwestern United States or Canada and you experience several days of winter temperatures below -20°C with clear weather, you are undoubtedly experiencing \_\_\_\_\_.

- A) a Continental Tropical air mass

- B) a Continental Polar air mass
- C) a cyclonic storm
- D) a Maritime Polar air mass

Answer: <https://biology-forums.com/index.php?topic=374175>

### Question 723

In the food chain, each feeding stage is called a \_\_\_\_\_ level.

- A) bios
- B) trophic
- C) replenishment
- D) none of these

Answer: <https://biology-forums.com/index.php?topic=373812>

### Question 724

The temperature of a red giant increases rapidly because \_\_\_\_\_.

- A) gravitational energy is converted to heat
- B) exothermic chemical reactions occur
- C) endothermic chemical reactions occur
- D) friction from the collapse creates heat
- E) fusion increases and gives off heat

Answer: <https://biology-forums.com/index.php?topic=374572>

### Question 725

Earthquakes with a very deep focus are usually located along \_\_\_\_\_.

- A) a hot spot chain such as the Hawaiian Islands
- B) a divergent plate boundary such as the Mid-Atlantic Ridge
- C) a convergent boundary such as the Peru-Chile trench
- D) a transform boundary such as the San Andreas

Answer: <https://biology-forums.com/index.php?topic=373334>

### Question 726

In Hurricane Katrina, the storm came ashore heading almost due north and the eye passed between the towns of Slidell, Louisiana and Waveland, Mississippi. Slidell, LA suffered heavy flooding and moderate wind damage while Waveland, MS was totally destroyed without a single building standing within 200m of the coastline. Both cities experienced the eyewall of the storm where the winds are strongest, so why was the destruction so different?

- A) Waveland caught the right front quadrant of the storm, with maximum storm surge and wind.
- B) Waveland must have been at a lower elevation than Slidell.
- C) Slidell must be a sheltered coastline, or protected behind a levee system.
- D) Slidell was just lucky and experienced a temporary lull in the storm.

Answer: <https://biology-forums.com/index.php?topic=374209>

### Question 727

Possibly the most cataclysmic event associated with the death of a star is the \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374594>

### Question 728

Modified Mercalli energy Richter amplitude

Answer: <https://biology-forums.com/index.php?topic=373350>

### Question 729

The Amargosa Valley in eastern California desert often experiences a cold evening wind that blows downvalley. Which of the following might explain this phenomenon?

- A) Daytime heating causes a local low pressure that causes air to rush in by evening.
- B) Moist Pacific air rising over the Sierra Nevada Mountains produces mountain precipitation, and as this air spills off the eastern escarpment, it forms the valley wind.
- C) It is a nighttime land breeze and there should be an accompanying daytime seabreeze up valley.
- D) Night time cooling upvalley produces a cold, unstable air mass that is funneled down the valley to produce a valley wind.

Answer: <https://biology-forums.com/index.php?topic=374138>

### Question 730

Tornadoes of F1 to F2 in strength account for \_\_\_\_\_.

- A) most of the property destruction caused by tornadoes
- B) most of the weird phenomena ascribed to tornadoes
- C) most of the deaths by tornadoes
- D) most of the tornadoes observed

Answer: <https://biology-forums.com/index.php?topic=374203>

### Question 731

Inches of mercury is something that would only be used in America. Elsewhere in the world, the mercury height would be in millimeters, or about 760mm (76cm). Mercury has a density of about 13.56 g/cm<sup>3</sup>, or in other words, each cm of mercury weighs about 13,300 dynes. So 760mm of mercury weighs 1,013,000 dynes. 1 mb is 1 dyne/cm<sup>2</sup>, so what is the air pressure in mb?

- A) 1.013 mb
- B) 1,000,000 mb
- C) 1013 mb
- D) 760 mb

Answer: <https://biology-forums.com/index.php?topic=374102>

### Question 732

Compared to nearby places at lower elevations, sites with \_\_\_\_\_ climates are cooler and usually wetter.

Answer: <https://biology-forums.com/index.php?topic=374312>

### Question 733

You are body surfing in modest waves that are breaking just offshore. A particularly big one catches you off guard, flips you over and over, and deposits you on the shore. As you lie there in the sand, you think, hey, I just landed on \_\_\_\_\_.

- A) the beachface
- B) a coastal dune
- C) a nearshore bar (not the kind that serves drinks)
- D) the backshore

Answer: <https://biology-forums.com/index.php?topic=373852>

### Question 734

Most of the United States is situated in which zone of prevailing winds?

- A) doldrums
- B) westerlies
- C) subpolar easterlies
- D) trade winds

Answer: <https://biology-forums.com/index.php?topic=374131>

### Question 735

Highland climates usually experience \_\_\_\_\_ compared to the adjacent lowlands.

- A) higher winds
- B) slower but larger changes
- C) similar patterns of change
- D) smaller temperature and precipitation variations
- E) faster and larger changes

Answer: <https://biology-forums.com/index.php?topic=374271>

### Question 736

Why is productivity low in tropical regions?

- A) because the deep waters are too warm to maintain a healthy biomass
- B) because the low density of the water makes it hard for plankton to float near the surface
- C) because there is too much sunlight
- D) because the thermocline acts as a barrier to the mixing of surface and deep waters
- E) All of the above are problems.

Answer: <https://biology-forums.com/index.php?topic=373810>

### Question 737

Water is unique because \_\_\_\_\_.

- A) its molecules are in motion even when it is solid
- B) it exists in three different states at normal conditions in the earth's atmosphere
- C) it forms from a wide range of chemical processes
- D) it is light enough to escape the earth's gravity but it has not done so
- E) it contracts when it becomes a gas

Answer: <https://biology-forums.com/index.php?topic=374003>

### Question 738

A mass wasting process that involves slip of solid rock above a distinct sliding surface is called \_\_\_\_\_.

- A) a slump
- B) a rock avalanche
- C) a rock fall
- D) a rock slide

Answer: <https://biology-forums.com/index.php?topic=372944>

### Question 739

The asthenosphere is actually a part of the \_\_\_\_\_ of the earth.

- A) crust
- B) mantle
- C) inner core
- D) outer core

Answer: <https://biology-forums.com/index.php?topic=372508>

### Question 740

Most deformation occurs along plate boundaries because \_\_\_\_\_.

- A) plates are rigid in their interior but the boundaries are in the asthenosphere.
- B) that is where the molten material makes it easy to deform rock
- C) the plates are in constant motion and as a result the boundaries are where they interact
- D) the plates were broken along their boundaries so that is where they are weakest

Answer: <https://biology-forums.com/index.php?topic=373246>

### Question 741

Waves begin to "feel bottom" when the depth of water is \_\_\_\_\_.

- A) three times as great as the wavelength
- B) equal to the wavelength
- C) twice as great as the wavelength
- D) equal to its wave base

Answer: <https://biology-forums.com/index.php?topic=373858>

### Question 742

Internally, the earth consists of spherical shells with different compositions and densities.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372560>

### Question 743

An atom with 30 protons always has 30 neutrons and 30 electrons.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372655>

### Question 744

Extending from Norway to the Pacific coast of Russia is a great expanse of \_\_\_\_\_ climate, often referred to as the taiga climate.

Answer: <https://biology-forums.com/index.php?topic=374308>

### Question 745

The solar wind originates from \_\_\_\_\_.

- A) the photosphere

- B) the interior of the Sun
- C) the corona
- D) the heliosphere

Answer: <https://biology-forums.com/index.php?topic=374510>

### Question 746

A widely cited theory associates active faults and earthquakes in China and southeast Asia to the India-Eurasia collision. This theory suggests \_\_\_\_\_.

- A) India is moving west relative to Eurasia, pulling central Asia away from East Asia
- B) subduction beneath East Asia is pushing East Asia toward the Himalaya, forming young mountains between the Himalaya and Pacific subduction zones
- C) India is plowing into the "soft underbelly" of Asia, pushing East Asia eastward
- D) East Asia is moving toward the Himalaya, causing faulting and earthquakes

Answer: <https://biology-forums.com/index.php?topic=373481>

### Question 747

The two most important elements in a climatic description are \_\_\_\_\_ and \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374297>

### Question 748

The subdivision of the geologic time scale that represents the longest time span is called a(n) \_\_\_\_\_.

- A) era
- B) period
- C) eon
- D) epoch

Answer: <https://biology-forums.com/index.php?topic=373569>

### Question 749

Oceanic lithosphere subducts (sinks into the asthenosphere) because \_\_\_\_\_.

- A) old oceanic lithosphere is more dense than the asthenosphere
- B) the upwelling magma at divergent boundaries pushes the lithospheric plate into the asthenosphere
- C) The convection of the mantle pulls the lithosphere into the asthenosphere
- D) the pressure from two plates colliding forces one plate into the asthenosphere

Answer: <https://biology-forums.com/index.php?topic=373257>

### Question 750

Relative humidity is a measure of \_\_\_\_\_.

- A) the amount of water vapor in the air compared to some standard amount of water vapor
- B) the ratio of water vapor in air to the amount of air
- C) the ratio of the water vapor in the air to the amount of water vapor that it would take to saturate the air
- D) how much water vapor is in the air
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=374015>

### Question 751

Large circular downwarped structures are called \_\_\_\_\_.

- A) basins
- B) anticlines
- C) domes
- D) synclines

Answer: <https://biology-forums.com/index.php?topic=373451>

### Question 752

A dendritic (tree-like) drainage pattern develops in regions where the underlying material is relatively uniform so the major control on the water movement is \_\_\_\_\_.

- A) vegetation
- B) sediment load
- C) saturation
- D) slope
- E) climate

Answer: <https://biology-forums.com/index.php?topic=373051>

### Question 753

Which of the following cloud types is most commonly associated with precipitation?

- A) cirrostratus
- B) nimbostratus
- C) altostratus
- D) cirrocumulus

Answer: <https://biology-forums.com/index.php?topic=374045>

### Question 754

The major source of free oxygen in the atmosphere is from \_\_\_\_\_.

- A) silicate minerals
- B) molten rock
- C) green plants
- D) glaciers
- E) water

Answer: <https://biology-forums.com/index.php?topic=373617>

### Question 755

A parcel of air has a temperature of 0°C as it crosses a mountain range at 3000 meters. If it descends, what will its temperature be when it reaches sea level?

- A) 15°C
- B) 30°C
- C) 40°C
- D) 0°C

Answer: <https://biology-forums.com/index.php?topic=374038>

### Question 756

Consider the names of the eras in the geologic time scale. What is meant by "zoic"?

- A) places; geographic references
- B) life; living things
- C) rocks; lithified strata
- D) time; recording of events

Answer: <https://biology-forums.com/index.php?topic=373570>

### Question 757

The main power of water in a channel is related to its \_\_\_\_\_.

- A) viscosity and velocity
- B) slope and temperature
- C) slope and discharge
- D) discharge and viscosity
- E) velocity and temperature

Answer: <https://biology-forums.com/index.php?topic=373062>

### Question 758

Tropic of Cancer Equator Arctic Circle Tropic of Capricorn

Answer: <https://biology-forums.com/index.php?topic=373992>

### Question 759

Topographic basins like the areas labeled B in this figure are called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373499>

### Question 760

Patterns or configurations of stars named in honor of mythological characters are called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374384>

### Question 761

Briefly explain how magnetic patterns on the seafloor support Plate Tectonic theory.

Answer: <https://biology-forums.com/index.php?topic=373295>

### Question 762

What kind of weathering involves only a reduction in the sizes of bedrock, regolith, and mineral particles?

Answer: <https://biology-forums.com/index.php?topic=373008>

### Question 763

Planets in the making are referred to as \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373677>

### Question 764

In the figure, the stress on block 'Y' is \_\_\_\_\_.

- A) shear
- B) folding
- C) tensional
- D) compressional

Answer: <https://biology-forums.com/index.php?topic=373443>

### Question 765

Birds evolved from \_\_\_\_\_.

- A) gymnosperms
- B) tree-climbing amphibians
- C) pterosaurs
- D) apatosaurus
- E) archaeopteryx

Answer: <https://biology-forums.com/index.php?topic=373667>

### Question 766

\_\_\_\_\_ is the basic force that moves or accelerates soil and regolith down a slope.

Answer: <https://biology-forums.com/index.php?topic=373032>

### Question 767

Streams of protons and electrons emitted from the Sun are known as the \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374529>

### Question 768

Ore deposits of the element \_\_\_\_\_ do not require extreme concentrations because it is one of the most abundant elements in the Earth's crust.

- A) uranium
- B) boron
- C) carbon
- D) aluminum

Answer: <https://biology-forums.com/index.php?topic=372641>

### Question 769

Which of the following is not used to establish the boundary between dry and humid climates in the Köppen system?

- A) Seasonal Distribution of Precipitation
- B) Average Annual Temperature
- C) Average Annual Evaporation
- D) Average Annual Precipitation

Answer: <https://biology-forums.com/index.php?topic=374247>

### Question 770

The slight eastward slope of the Great Plains was created during the Cenozoic by \_\_\_\_\_.

- A) uplift of the expanding Basin and Range Province
- B) uplift of the western U.S. due to volcanic activity
- C) uplift of the western U.S. due to the formation of the Rocky Mountains
- D) deposition of sediments shed from the eroding Rocky Mountains
- E) tilting of the U.S. because of sediment deposited on the trailing edge of the plate

Answer: <https://biology-forums.com/index.php?topic=373637>

### Question 771

Which one of the following statements concerning volcanic blocks and bombs is true?

- A) Bombs are guided to Earth by laser beams; blocks fall anywhere.
- B) Bombs and blocks are both smaller than lapilli and cinders.
- C) Blocks are broken fragments of solid rocks; bombs have smaller sizes than lapilli.
- D) Bombs are ejected as magma lumps; blocks are ejected as solid fragments.

Answer: <https://biology-forums.com/index.php?topic=373386>

### Question 772

Why would astronomers place an X-ray observatory in space, like the Chandra observatory?

- A) to record X-rays emitted from the big bang; the so called background radiation of the universe
- B) to map X-ray emissions from the sun
- C) to map deep X-ray emissions from deep space, particularly as a proxy for materials being sucked into black holes
- D) to map X-ray emissions from the moon

Answer: <https://biology-forums.com/index.php?topic=374495>

### Question 773

lava magma pahoehoe aa

Answer: <https://biology-forums.com/index.php?topic=372841>

### Question 774

The first modern astronomer to propose a Sun-centered universe was \_\_\_\_\_.

- A) Sir Isaac Newton
- B) Nicolaus Copernicus
- C) Galileo
- D) Tycho Brahe

Answer: <https://biology-forums.com/index.php?topic=374333>

### Question 775

The movement of sand parallel to the shore \_\_\_\_\_.

- A) may create spits
- B) is achieved by longshore currents
- C) is created by waves approaching at an oblique angle
- D) all of the above

Answer: <https://biology-forums.com/index.php?topic=373865>

### Question 776

Which of the following generally has the lowest surface slope?

- A) beach shoreface
- B) continental rise
- C) continental slope
- D) continental shelf

Answer: <https://biology-forums.com/index.php?topic=373715>

### Question 777

The most important economic resource in the ocean today is \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373772>

### Question 778

Rocks that contain high amounts of silica typically also contain \_\_\_\_\_.

- A) calcium, magnesium, and potassium
- B) aluminum, magnesium, and potassium
- C) iron, magnesium, potassium
- D) aluminum, sodium, and potassium

Answer: <https://biology-forums.com/index.php?topic=372703>

### Question 779

As a geologist working in a foreign country for the first time, you are asked to assess the potential for mass wasting in a particular region. What

aspects or characteristics (geologic, geographic, biologic, etc.) of the region are you interested in for your assessment? Also, how could you possibly determine if mass wasting has been active in the recent geologic past (100's or 1000's of years)?

Answer: <https://biology-forums.com/index.php?topic=373040>

### Question 780

Earlier in this class you learned about the Coriolis force. Given your knowledge of this force and Jupiter, which of these statements is most accurate?

- A) The Coriolis force is much stronger on Jupiter than on Earth because Jupiter rotates more slowly than Earth and is much larger than Earth.
- B) The Coriolis force is much stronger on Jupiter than on Earth because it rotates more than twice as fast as Earth and it is much larger than Earth.
- C) The Coriolis force is much weaker on Jupiter than on Earth because of the strong gravity on Jupiter.
- D) The Coriolis force is the same on Jupiter as on Earth.

Answer: <https://biology-forums.com/index.php?topic=374439>

### Question 781

It is thought that submarine canyons on the continental slope have been generated by \_\_\_\_\_

- A) streams when sea level was much higher than it is today
- B) streams when sea level was much lower than it is today
- C) turbidity currents
- D) a submarine glaciations

Answer: <https://biology-forums.com/index.php?topic=373712>

### Question 782

The Morrison Formation is exposed in the western United States and represents a nonmarine deposit with abundant dinosaur fossils. Much of the Morrison is pure mudstone, yet it is common to find highly polished pebbles and cobbles in the mud. Which of the following do you think is the best explanation of these cobbles?

- A) They are impossible; people must have put them there.
- B) They represent meteorites that killed the dinosaurs.
- C) They were placed in the mud by space aliens.
- D) They are gastroliths, a trace fossil.

Answer: <https://biology-forums.com/index.php?topic=373547>

### Question 783

\_\_\_\_\_ are characteristics of downcutting streams and a youthful stage of valley evolution.

- A) Meandering channels and natural levees
- B) U-shaped, cross-valley profiles
- C) Rapids and lots of whitewater
- D) Wide floodplains

Answer: <https://biology-forums.com/index.php?topic=373082>

### Question 784

Which of the following is not a way that seismic waves travel in the earth?

- A) reflection
- B) diffusion
- C) refraction
- D) diffraction

Answer: <https://biology-forums.com/index.php?topic=373341>

### Question 785

When Hurricane Katrina was a category 5 hurricane at its peak strength, the air pressure in the eye of the storm was 902mb. Near the earth's surface, the air pressure falls off at roughly 100mb per kilometer. So if you had an uncorrected altimeter in the eye of Katrina at sea level (not a good place to be), what altitude would it have read?

- A) 1020 m
- B) 10,000 m
- C) 115 m
- D) 2010 m

Answer: <https://biology-forums.com/index.php?topic=374103>

### Question 786

Which igneous texture is characterized by two distinctively different crystal sizes?

- A) porphyritic
- B) fine-grained

- C) glassy
- D) coarse-grained

Answer: <https://biology-forums.com/index.php?topic=372707>

### Question 787

You are given a six-month assignment by your employer to work at a remote location in Australia. In order to pack as lightly as possible, you try to research the climate of the small town in Australia, but there is little data since no major cities are located within 300 miles. What are some geographic or other considerations that might help you "predict" what general weather patterns exist at the location?

Answer: <https://biology-forums.com/index.php?topic=374001>

### Question 788

Which one of the following is not true of glaciers?

- A) exist only in the Northern Hemisphere
- B) form from the recrystallization of snow
- C) show evidence of past or present flow
- D) originate on land

Answer: <https://biology-forums.com/index.php?topic=373167>

### Question 789

Chemical sedimentary rocks form from materials \_\_\_\_\_.

- A) carried in solution
- B) that form weak bonds with oxygen
- C) too fine to see without a microscope
- D) all of the above

Answer: <https://biology-forums.com/index.php?topic=372725>

### Question 790

People learned by trial and error years ago how to paddle a canoe upstream in meandering rivers, knowing where the strongest currents were located. Assuming you don't want to go backwards, what is the best paddling route to maximize your speed upstream?

- A) Always stay close to one bank or the other, regardless of how the river bends.
- B) Stay on the inside bend of meanders, crossing over whenever the meander turns so you can stay on the inside bend.
- C) Stay in midchannel.
- D) Keep on the outside bends, near the cut banks, as much as possible.

Answer: <https://biology-forums.com/index.php?topic=373079>

### Question 791

core asthenosphere mantle lithosphere

Answer: <https://biology-forums.com/index.php?topic=373353>

### Question 792

Light travels 300,000 km/s. Many communications satellites are in geosynchronous orbit at about 36,000 km above the earth's surface. If you talk to your friend on the other side of the world via a geosynchronous satellite using Skype or your phone, what is the minimum time delay there will be between you and your friend in your conversation?

- A) .12 seconds
- B) .48 seconds
- C) .24 seconds
- D) 8.3 seconds

Answer: <https://biology-forums.com/index.php?topic=374470>

### Question 793

A map of the ages of the sea floor shows \_\_\_\_\_.

- A) the direction of the plate motions
- B) how much material was produced at the ridges during a given period of time
- C) how fast the plates are moving
- D) the location of modern plate boundaries

Answer: <https://biology-forums.com/index.php?topic=373277>

### Question 794

Most stars are in this stage of evolution.

- A) main-sequence star
- B) black hole
- C) white dwarf
- D) red giant

Answer: <https://biology-forums.com/index.php?topic=374562>

### Question 795

The movement of water within the surf zone that parallels the shore is termed \_\_\_\_\_.

- A) beach drift
- B) tidal current
- C) salinity current
- D) longshore current

Answer: <https://biology-forums.com/index.php?topic=373864>

### Question 796

When the environmental lapse rate is greater than the dry adiabatic rate, \_\_\_\_\_.

- A) surface air will rise and fall
- B) surface air cannot rise and will be trapped beneath colder air above
- C) surface air will rise, form clouds, and fall
- D) surface air will rise and continue to rise
- E) surface air will not rise because this is the normal condition

Answer: <https://biology-forums.com/index.php?topic=374039>

### Question 797

In the early history of the earth, the solid surface of the earth weathered more rapidly than now because \_\_\_\_\_.

- A) the early rain was very acidic
- B) there was little topography so shallow water washed across the surface often
- C) the atmosphere contained large amounts of corrosive methane
- D) the rocks at the surface were weak because there was little oxygen available
- E) there were numerous earthquakes and volcanoes breaking up the surface

Answer: <https://biology-forums.com/index.php?topic=373624>

### Question 798

When the center of circulation of a midlatitude cyclone just passes to your south, you expect \_\_\_\_\_.

- A) warming conditions during light to moderate rain with a falling barometer followed by a northwest wind and rising barometer
- B) winds shifting from the east or northeast to northwest during rainy (or snowy) weather
- C) winds shifting from the south or southeast to the west or northwest with abrupt cooling at the passage of a cold front
- D) a constantly rising barometer until the cyclone passes then falling barometer

Answer: <https://biology-forums.com/index.php?topic=374191>

### Question 799

At the beginning of spring, the vernal equinox, what is the right ascension of the sun?

- A) 90 degrees
- B) 0
- C) 12 hr
- D) 18 hr

Answer: <https://biology-forums.com/index.php?topic=374346>

### Question 800

Select from the list below the coarse-grained rock which is composed mainly of quartz and potassium feldspar.

- A) granite
- B) diorite
- C) andesite
- D) basalt

Answer: <https://biology-forums.com/index.php?topic=372711>

### Question 801

What volcanic events formed Crater Lake, Oregon? When did they take place?

- A) Landslides and volcanic mudflows dammed the Mazama River 500 years ago.
- B) Caldera collapse followed major ash and pyroclastic-flow eruptions 6000 years ago.

C) The crater of a large, extinct cinder cone filled with water 5 million years ago.  
D) A powerful explosion blew away the top of a stratovolcano 10 million years ago.  
Answer: <https://biology-forums.com/index.php?topic=373415>

### Question 802

Western North America is the leading edge of the \_\_\_\_\_ plate.  
Answer: <https://biology-forums.com/index.php?topic=373688>

### Question 803

How do aerosols influence climate?  
A) They absorb long wavelength earth radiation.  
B) They produce acid rain.  
C) They reflect solar radiation back into space.  
D) They increase the albedo.  
E) All of the above  
Answer: <https://biology-forums.com/index.php?topic=374282>

### Question 804

If you observe an angular unconformity, you would infer that the region had experienced \_\_\_\_\_.  
A) uplift and tilting of sedimentary units that exposes them to erosion over a period of time with subsequent renewed deposition  
B) deposition in shallow water, uplift or lowering of sea level enough to expose the rocks to erosion and non-deposition for a period of time, and subsequent resubmergence of the remaining sedimentary units where they experience new deposition  
C) intrusion of igneous rocks into a depositional setting, forcing the sedimentary layers upward and possibly deforming them, followed by subsidence of the remaining sedimentary layers and renewed deposition.  
D) deposition of sedimentary layers on crystalline igneous or metamorphic rocks that are exposed at the surface of the earth  
Answer: <https://biology-forums.com/index.php?topic=373525>

### Question 805

Which color stars have the coolest surface temperature?  
A) orange  
B) yellow  
C) blue  
D) red  
Answer: <https://biology-forums.com/index.php?topic=374553>

### Question 806

In the past approximately 100 years, global temperatures have \_\_\_\_\_.  
A) not changed significantly  
B) decreased by nearly 5°C  
C) increased by nearly 5°C  
D) decreased by nearly 1°C  
E) increased by nearly 1°C  
Answer: <https://biology-forums.com/index.php?topic=374276>

### Question 807

Which is more dense, seawater or freshwater?  
Answer: <https://biology-forums.com/index.php?topic=373820>

### Question 808

A transform boundary is characterized by \_\_\_\_\_.  
A) a deep, vertical fault along which two plates slide past one another in opposite directions  
B) stratovolcanoes on the edge of a plate and shield volcanoes on the adjacent plate  
C) a divergent boundary where the continental plate changes to an oceanic plate  
D) two converging oceanic plates meeting head-on and piling up into a mid-ocean ridge  
Answer: <https://biology-forums.com/index.php?topic=373241>

### Question 809

One of the discoveries that led to the modern view of the solar system was that the orbits of the planets are not circular but \_\_\_\_\_.  
Answer: <https://biology-forums.com/index.php?topic=374382>

### Question 810

The \_\_\_\_\_ is the site of initial rupturing associated with an earthquake.

Answer: <https://biology-forums.com/index.php?topic=373354>

### Question 811

Zircons found in continental rocks give evidence that continental crust was forming as long ago as \_\_\_\_\_.

- A) 10,000 years ago
- B) 70 million years ago
- C) 1.9 billion years ago
- D) 4.4 billion years ago
- E) 564 million years ago

Answer: <https://biology-forums.com/index.php?topic=373628>

### Question 812

Which of these lunar features is the oldest?

- A) rayed craters like Copernicus
- B) lunar highlands
- C) maria basins
- D) lunar soil

Answer: <https://biology-forums.com/index.php?topic=374405>

### Question 813

The motion of a star can be determined using the \_\_\_\_\_ effect.

Answer: <https://biology-forums.com/index.php?topic=374525>

### Question 814

Einstein's equation  $E = mc^2$  describes the conversion of mass to energy that occurs during nuclear fusion. If a billion joules of energy are released by this process, how much mass has been consumed? (Recall, a joule is a Nt-m or kg-m<sup>2</sup>/s<sup>2</sup> and the speed of light is ~300 million m/s.)

Answer: <https://biology-forums.com/index.php?topic=374535>

### Question 815

sea stack bar tombolo barrier island

Answer: <https://biology-forums.com/index.php?topic=373911>

### Question 816

The Columbia Plateau in the northwestern United States is an excellent example of \_\_\_\_\_.

- A) an eroded shield volcano
- B) silica-rich lava flows
- C) pyroclastic flow deposits
- D) flood basalts

Answer: <https://biology-forums.com/index.php?topic=373416>

### Question 817

The overall effect of aerosols is to \_\_\_\_\_.

- A) decrease CO<sub>2</sub>
- B) warm the planet
- C) cool the planet
- D) increase ocean temperatures
- E) increase CO<sub>2</sub>

Answer: <https://biology-forums.com/index.php?topic=374283>

### Question 818

Deserts occur primarily in the Africa, Arabia, and Australia because of \_\_\_\_\_.

- A) subsiding air currents
- B) high temperatures
- C) rising air currents
- D) mountains that block the moisture and long distances from the oceans

Answer: <https://biology-forums.com/index.php?topic=373199>

### Question 819

X-rays have shorter wavelength than visible light; therefore, X-rays \_\_\_\_\_.

- A) cannot be detected because of their wavelength
- B) have lower energy than light waves
- C) are higher energy than light waves
- D) pass through materials because their photons are smaller than light photons

Answer: <https://biology-forums.com/index.php?topic=374467>

### Question 820

The name \_\_\_\_\_ climate is often used as a synonym for the dry-summer subtropical climate.

- A) Australian
- B) Mediterranean
- C) African
- D) Indian
- E) European

Answer: <https://biology-forums.com/index.php?topic=374261>

### Question 821

The major absorber of terrestrial radiation is \_\_\_\_\_.

- A) ozone
- B) water vapor
- C) carbon Dioxide
- D) oxygen
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=373979>

### Question 822

What of the following is considered to be the most likely cause of the Quaternary Ice ages?

- A) plate tectonics moving continents to polar regions
- B) variations in the earth's orbit
- C) variations in the Sun's intensity
- D) human activity releasing "greenhouse" gases

Answer: <https://biology-forums.com/index.php?topic=373190>

### Question 823

The micas, biotite and muscovite, both exhibit one direction of cleavage.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372669>

### Question 824

Which of the following is a renewable resource?

- A) helium gas
- B) rock salt
- C) coal
- D) ice

Answer: <https://biology-forums.com/index.php?topic=372640>

### Question 825

Marine organisms are influenced by a variety of physical oceanographic factors including \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373834>

### Question 826

Astrology is the folklore that arose from watching alignments in the night sky and the belief that these "celestial events" controlled human events. A 1960's folk song, "The Age of Aquarius" has numerous astrology references that relate to the positions of objects in the sky. The song has a line: "When the moon is in the 7th house, and Jupiter aligns with Mars, then peace will guide the planet..." From your knowledge of the stellar constellations and the celestial coordinate system, what does this line mean?

- A) When Jupiter and Mars align with the sun, and it is the 7th full moon of the year, then peace...

- B) When Jupiter and Mars align in the sky, and the moon is in the 7th constellation of the zodiac, then peace...  
C) When the moon crosses the zodiac in the 7th month of the year, and Jupiter and Mars align with the moon, then peace...  
D) It is just a nonsense line with no meaning.

Answer: <https://biology-forums.com/index.php?topic=374347>

### Question 827

arroyo wadi inselberg nullah

Answer: <https://biology-forums.com/index.php?topic=373210>

### Question 828

On a typical seismogram, \_\_\_\_\_ will show the highest amplitudes.

- A) P waves  
B) surface waves  
C) body waves  
D) S waves

Answer: <https://biology-forums.com/index.php?topic=373306>

### Question 829

Saturn's moon Titan has rain like earth, but the rain is \_\_\_\_\_, not water.

Answer: <https://biology-forums.com/index.php?topic=374457>

### Question 830

When subjected to a differential stress, a very "brittle" material, like glass, will \_\_\_\_\_.

- A) flow or shear if the stress is large enough  
B) not bend at all. It will only break.  
C) deform by breaking or elastic bending  
D) flow under low to moderate stress conditions

Answer: <https://biology-forums.com/index.php?topic=373441>

### Question 831

The first scientist to use a telescope for astronomical purposes was \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374527>

### Question 832

What type of fog forms in valleys at night?

Answer: <https://biology-forums.com/index.php?topic=374089>

### Question 833

How do astronomers believe an irregular galaxy forms?

- A) They form when an elliptical and a spiral galaxy merge.  
B) They are young galaxies that have not yet developed a more regular form.  
C) Several regular galaxies of different sizes merge.  
D) They are regular galaxies that are distorted by the gravity field of a large nearby galaxy.  
E) They are two or more galaxies that have not completed their merger.

Answer: <https://biology-forums.com/index.php?topic=374580>

### Question 834

In the Rocky Mountain region of the United States, north-facing slopes (downhill direction is toward the north) are typically moister and more heavily forested than south-facing slopes. Why?

- A) North-facing slopes receive about the same amount of precipitation as south-facing slopes; less moisture evaporates from north-facing slopes.  
B) South-facing slopes receive less moisture, yet rock weathering is faster.  
C) South-facing slopes receive more moisture and sunlight; rock weathering is slower.  
D) North-facing slopes receive more sunlight in the summer; snow melts faster and more soil moisture is available for the trees.

Answer: <https://biology-forums.com/index.php?topic=372917>

### Question 835

Earth hits its perihelion position in January. Solar radiation is proportional to the distance squared between the sun and the earth, so why isn't it hot in "winter" at perihelion?

- A) The ellipticity of the orbit is small, so the affect is small; seasons are caused by tilt of the earth's orbit.

- B) It is; it is called summer in the Southern Hemisphere, and there is just a time lag for the Northern Hemisphere.  
C) Precession modifies the effect as the earth wobbles on its axis.  
D) None of these is correct.

Answer: <https://biology-forums.com/index.php?topic=374353>

### Question 836

Temperatures in the deep oceans are \_\_\_\_\_ at low latitudes compared to high latitudes.

- A) highly variable  
B) about the same  
C) higher  
D) very constant  
E) lower

Answer: <https://biology-forums.com/index.php?topic=373790>

### Question 837

What feature originates where the water table intersects the land surface?

Answer: <https://biology-forums.com/index.php?topic=373136>

### Question 838

The period of time required for the Moon to complete a cycle of phases is called the \_\_\_\_\_ month.

- A) synodic  
B) zodiacal  
C) Julian  
D) equinox  
E) sidereal

Answer: <https://biology-forums.com/index.php?topic=374363>

### Question 839

After the center of a mature wave cyclone passes, you should expect \_\_\_\_\_.

- A) warmer temperatures  
B) barometric pressure to remain steady  
C) barometric pressure to rise  
D) barometric pressure to fall

Answer: <https://biology-forums.com/index.php?topic=374190>

### Question 840

Sediment production occurs primarily in \_\_\_\_\_ part of a river system.

- A) the head waters  
B) the drainage divide  
C) the trunk stream  
D) the flood plain  
E) the outlet

Answer: <https://biology-forums.com/index.php?topic=373048>

### Question 841

The first step in turning a rock into a sediment is \_\_\_\_\_.

- A) rock is broken into small pieces during the transportation phase  
B) compaction  
C) gravity and erosional agents (wind, water, etc.) remove material from the parent rock  
D) weathering alters the rock

Answer: <https://biology-forums.com/index.php?topic=372714>

### Question 842

You are walking along the shoreline but the material under your feet isn't sand, but instead is large cobbles and you occasionally have to scramble around small boulders. You are on \_\_\_\_\_.

- A) a coral reef shoreface  
B) a beach  
C) a coastal dune  
D) a wave cut terrace

Answer: <https://biology-forums.com/index.php?topic=373855>

### Question 843

One half of the atmosphere is below \_\_\_\_\_.

- A) 1 km (0.6 miles)
- B) 5.6 km (3.5 miles)
- C) 10 km (6 miles)
- D) 7.2 km (4.3 miles)
- E) 3.5 km (2.1 miles)

Answer: <https://biology-forums.com/index.php?topic=373948>

### Question 844

On a weather map, \_\_\_\_\_ fronts are shown by a line with semicircles extending from one side.

- A) occluded
- B) cold
- C) stationary
- D) warm

Answer: <https://biology-forums.com/index.php?topic=374186>

### Question 845

Which of the following is designed to prevent or retard shoreline erosion?

- A) groin
- B) seawall
- C) beach nourishment
- D) all of these

Answer: <https://biology-forums.com/index.php?topic=373893>

### Question 846

This scientist wrote a book entitled Dialogue of the Great World Systems that compared the Earth-centered system with the Sun-centered system.

- A) Tycho Brahe
- B) Nicolaus Copernicus
- C) Galileo
- D) Johannes Kepler
- E) Sir Isaac Newton

Answer: <https://biology-forums.com/index.php?topic=374339>

### Question 847

One disadvantage to living near the surface of the ocean is \_\_\_\_\_.

- A) maneuvering in the water can be difficult and make it a problem to avoid predators
- B) too many other marine organisms live near the surface so competition for food is difficult.
- C) waves create difficulty in finding abundant food
- D) strong currents bring rapid changes to the environment

Answer: <https://biology-forums.com/index.php?topic=373800>

### Question 848

Why is climate change a political issue in the United States?

Answer: <https://biology-forums.com/index.php?topic=374317>

### Question 849

Anyone who has ever gone swimming in heavy surf will tell you that if a wave is about to crash over you, the best thing to do is dive down, under the wave. Why does this keep you from being swept up in the wave, like being in a washing machine?

- A) You dive below the shoreward moving part of the elliptical particle motion of the wave.
- B) You dive into the rip current, which will carry you out to sea.
- C) You dive into the base of the zone of circular motion associated with the wave.
- D) You get carried sideways by a longshore current, which is better than being beaten up by the breaking wave.

Answer: <https://biology-forums.com/index.php?topic=373862>

### Question 850

Talc and graphite are two of the lowest minerals on the hardness scale. They are also described by terms like greasy or soapy. Both have a crystal structure characterized by sheet-structures at the atomic level, yet they don't behave like micas. What accounts for their unusual physical properties?

Answer: <https://biology-forums.com/index.php?topic=372689>

### Question 851

Relative to the celestial background, the moon moves \_\_\_\_\_.

- A) west to east
- B) south to north
- C) southeast to northwest
- D) east to west

Answer: <https://biology-forums.com/index.php?topic=374364>

### Question 852

The Himalayas formed as a result of \_\_\_\_\_.

- A) an ocean-continent convergence
- B) an ocean-ocean convergence
- C) a continent-continent convergence
- D) a hot spot

Answer: <https://biology-forums.com/index.php?topic=373259>

### Question 853

Climate change and human activity like overgrazing of grasslands is leading to large areas subject to "desertification" where native grass cover dies out during drought periods, exposing soil to erosion. What is potentially the greatest initial soil erosion potential during this type of an event?

- A) sand blown in from adjacent deserts
- B) loss of topsoil by wind erosion on a large scale
- C) local gulying produced by intermittent rain storms
- D) growth of shrubs shading the ground, further killing the grasses

Answer: <https://biology-forums.com/index.php?topic=372930>

### Question 854

The major difference in vegetation between the different humid tropical (A) regions is that \_\_\_\_\_.

- A) wet tropical regions have rain forests, and tropical wet and dry regions have brush and succulents
- B) wet tropical regions have grasslands, and tropical wet and dry regions have brush and succulents
- C) wet tropical regions have rain forests, and tropical wet and dry regions have grasslands
- D) wet tropical regions have brush and succulents, and tropical wet and dry regions have grasslands
- E) wet tropical regions have grasslands, and tropical wet and dry regions have rain forests

Answer: <https://biology-forums.com/index.php?topic=374242>

### Question 855

When electrons are shared amongst all atoms, the resulting bond is a(n) \_\_\_\_\_ bond.

- A) partial
- B) ionic
- C) metallic
- D) covalent

Answer: <https://biology-forums.com/index.php?topic=372599>

### Question 856

reflecting refracting radio optical

Answer: <https://biology-forums.com/index.php?topic=374520>

### Question 857

In the figure, which of the deformations appears most similar to what might be expected along a transform plate boundary?

- A) original
- B) X
- C) Y
- D) Z

Answer: <https://biology-forums.com/index.php?topic=373445>

### Question 858

Which of the following is modern descendant of the Gymnosperm?

- A) sharks

- B) pine trees
- C) crocodiles
- D) turkeys
- E) tulips

Answer: <https://biology-forums.com/index.php?topic=373665>

### Question 859

Which type of basaltic lava flow has its surface covered with sharp-edged, angular blocks and rubble?

- A) aa
- B) pahoehoe
- C) pillow lava
- D) scoria

Answer: <https://biology-forums.com/index.php?topic=373385>

### Question 860

The term karst topography was first used in \_\_\_\_\_.

- A) the Republic of Slovenia, a province of the former Yugoslavia
- B) India, near the southern foothills of the Himalayan Mountains
- C) Australia for the extremely dry interior area near Ayres Rock and Alice Springs
- D) eastern Canada in areas of fractured igneous and metamorphic rocks

Answer: <https://biology-forums.com/index.php?topic=373117>

### Question 861

Scientists infer that chemical weathering of crustal rocks is not the only source of some minerals, such as chlorine, bromine, sulfur, and boron because \_\_\_\_\_.

- A) some of the minerals are only found in meteorites and must have an extraterrestrial source
- B) there are more of those minerals in the oceans than can be derived from crustal rocks alone
- C) the minerals are highly reactive and are not found as compounds that would come from crustal material
- D) those minerals have the wrong isotopic composition for weathering products of crustal rocks
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=373781>

### Question 862

According to the Ptolemaic (Greek) model of the universe, how many "heavenly" bodies could be observed wandering along the background of stars?

- A) seven
- B) two
- C) one
- D) five

Answer: <https://biology-forums.com/index.php?topic=374319>

### Question 863

Which ocean formed as a direct result of the breakup of Pangaea?

- A) Atlantic
- B) Arctic
- C) Pacific
- D) Mediterranean

Answer: <https://biology-forums.com/index.php?topic=373269>

### Question 864

Which of the following is not a fundamental particle found in atoms?

- A) electron
- B) protons
- C) neutron
- D) selectron

Answer: <https://biology-forums.com/index.php?topic=372590>

### Question 865

The latent heat of melting is 80 calories for 1 gram of ice. If 1 gram of ice absorbs 60 calories what do I get?

- A) a mixture of ice and water at a temperature of 0°C
- B) 1 gram of water at a temperature of -20°C

- C) 1 gram of ice
- D) 1 gram of water at a temperature of 20°C
- E) a mixture of ice and water at a temperature of 20°C

Answer: <https://biology-forums.com/index.php?topic=374005>

### Question 866

Climate-feedback mechanisms \_\_\_\_\_.

- A) enhance climate models
- B) complicate climate models
- C) disagree with climate models
- D) have nothing to do with climate models
- E) support climate models

Answer: <https://biology-forums.com/index.php?topic=374278>

### Question 867

Basalt is the fine-grained equivalent of gabbro.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372858>

### Question 868

Electrons orbit the nucleus of an atom much like planets around the Sun, with inner orbitals fixed and outer orbitals subject to exchange with other atoms to make compounds.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372654>

### Question 869

Nonmetallic minerals like halite and gypsum have no industrial uses.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372678>

### Question 870

Clams, sponges, and crabs are all examples of \_\_\_\_\_ organisms.

Answer: <https://biology-forums.com/index.php?topic=373833>

### Question 871

Slipher made the observation that galaxies rotated and moved relative to each other. Hubble expanded on this work to show that \_\_\_\_\_.

- A) galaxies within the Local Group rotate less than other galaxies
- B) the relative motion between adjacent galaxies varies
- C) the rates of rotation varied within galaxies
- D) all galaxies except those in the Local Group are moving away from the Milky Way
- E) galaxies within the Local Group rotate more than other galaxies

Answer: <https://biology-forums.com/index.php?topic=374582>

### Question 872

Faults are "locked" because \_\_\_\_\_.

- A) high confining pressure increases friction on the fault
- B) major faults occur at plate boundaries that only move occasionally
- C) earthquakes only form when the rocks are free to move
- D) elastic rebound occurs on faults
- E) otherwise they would have earthquakes all the time

Answer: <https://biology-forums.com/index.php?topic=373296>

### Question 873

Usually \_\_\_\_\_ fronts produce several hours to days of moderate-to-gentle precipitation over a large region.

- A) cold
- B) warm and cold

- C) warm
- D) none of these

Answer: <https://biology-forums.com/index.php?topic=374182>

### Question 874

Thermohaline circulation is \_\_\_\_\_.

- A) deep circulation of water driven entirely by cold, saline water descending to the ocean floor at the poles and flowing along the bottom of the ocean
- B) the circulation that occurs in shallow, evaporate basins when salt begins to crystallize, releasing heat by latent heat of fusion and heating the water mass, forcing shallow convection in the water column
- C) shallow circulation at low latitudes driven by surface evaporation making seawater more dense, which then sinks and drives upwelling
- D) deep circulation of water driven by a combination of cold temperature and high density related to high salinity from formation of sea ice, producing descending high density waters that flow southward to equatorial regions

Answer: <https://biology-forums.com/index.php?topic=373849>

### Question 875

The Sun in the making is known as the \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373678>

### Question 876

Light can be described as a stream of fast-moving particles called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374524>

### Question 877

Silicon-oxygen bonds are weak and cause cleavage to be common in silicate minerals.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372673>

### Question 878

The oceans cover approximately \_\_\_\_\_ percent of Earth's surface.

- A) 50
- B) 40
- C) 60
- D) 70

Answer: <https://biology-forums.com/index.php?topic=373702>

### Question 879

What condition is most necessary to build a glacier?

- A) More snow must fall in the winter than melts in the summer.
- B) The temperature must be cold enough to cause snow to fall regularly.
- C) The snow must be able to move downhill slowly.
- D) The elevation of the area must be high enough to allow snow to fall regularly.

Answer: <https://biology-forums.com/index.php?topic=373175>

### Question 880

Why is ozone concentrated in a particular range of levels in the atmosphere?

- A) It reflects light back into space at that level, and the energy from that reaction fuels the formation of ozone.
- B) It is formed from air pollution that reaches that level in sufficient quantities to form ozone.
- C) It requires a unique temperature and light level which occur at that range in the atmosphere.
- D) It requires a catalyst, an isolated oxygen atom, and an oxygen molecule, all of which occur in sufficient quantities at that range of levels.

Answer: <https://biology-forums.com/index.php?topic=373939>

### Question 881

The Laramide Orogeny at the end of the Mesozoic produced \_\_\_\_\_.

- A) the Ural Mountains in Russia
- B) the Alps in Europe
- C) the Himalayan Mountains in Asia
- D) the Rocky Mountains in the western U.S.
- E) the Appalachian Mountains in the eastern U.S.

Answer: <https://biology-forums.com/index.php?topic=373650>

### Question 882

Not all scientific hypotheses require real world observations. Some are tested through computer modeling or some other non-direct observations.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372551>

### Question 883

Unconsolidated, granular materials such as gravel and sand will support maximum slope angles of about 33 to 35 degrees. What is the name for this maximum slope angle?

Answer: <https://biology-forums.com/index.php?topic=373033>

### Question 884

Chemically active fluids are \_\_\_\_\_.

- A) fluids that contain large quantities of oxygen which reacts with most minerals to form new minerals during metamorphism
- B) more basic than regular fluids
- C) more acidic than regular fluids
- D) fluids that readily change to gases at surface conditions

Answer: <https://biology-forums.com/index.php?topic=372751>

### Question 885

Which of the following lists the rocks in the order of increasing grain size and increasing grade of metamorphism?

- A) slate, phyllite, schist
- B) phyllite, slate, schist
- C) slate, schist, phyllite
- D) schist, slate, phyllite

Answer: <https://biology-forums.com/index.php?topic=372835>

### Question 886

The suspended load of a stream \_\_\_\_\_.

- A) is highly soluble substances
- B) moves along the bottom
- C) usually consists of fine particles
- D) is deposited before the bed load

Answer: <https://biology-forums.com/index.php?topic=373067>

### Question 887

drumlin cirque esker moraine

Answer: <https://biology-forums.com/index.php?topic=373209>

### Question 888

The closest invisible wavelengths to violet on the electromagnetic spectrum are called \_\_\_\_\_ and are responsible for sunburns.

Answer: <https://biology-forums.com/index.php?topic=373998>

### Question 889

The Sun belongs to this class of stars.

- A) red giant
- B) black hole
- C) main-sequence star
- D) white dwarf

Answer: <https://biology-forums.com/index.php?topic=374561>

### Question 890

Three laws of planetary motion were discovered by \_\_\_\_\_.

- A) Galileo
- B) Nicolaus Copernicus
- C) Johannes Kepler
- D) Tycho Brahe

Answer: <https://biology-forums.com/index.php?topic=374336>

### Question 891

Ferromagnesian minerals (like olivine and pyroxene) that crystallize at high temperatures in Bowen's reaction series are generally much less susceptible to chemical weathering than quartz.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372982>

### Question 892

In the folk song "Wasn't That a Mighty Storm," the singer describes an event during the Galveston hurricane of 1900: "The trains they were loaded, with people leaving town, but the tracks gave way with the water, the trains they went on down." What hurricane phenomena was the author of this song describing?

- A) tornadoes embedded in the eye wall
- B) storm surge
- C) heavy rain and winds blowing a trestle over
- D) river flooding washing out train trestles

Answer: <https://biology-forums.com/index.php?topic=374208>

### Question 893

Which one of the following represents the greatest expanse of geological time?

- A) Mesozoic
- B) Cenozoic
- C) Paleozoic
- D) Precambrian

Answer: <https://biology-forums.com/index.php?topic=373615>

### Question 894

\_\_\_\_\_ is defined as the drop in elevation of the stream surface divided by the distance the water flows.

Answer: <https://biology-forums.com/index.php?topic=373126>

### Question 895

Clouds are classified on the basis of their \_\_\_\_\_.

- A) form and height
- B) thickness and height
- C) thickness
- D) height
- E) shape or form

Answer: <https://biology-forums.com/index.php?topic=374044>

### Question 896

Earth's physical environment is traditionally divided in the hydrosphere, atmosphere, and the solid Earth. Remembering the scientific method, why do you think that scientists tend to categorize and classify various features, phenomena, and characteristics of the natural world into groups or subdivisions? Also, are there potential pitfalls or problems if we only consider the natural world as individual groups or categories rather than as a whole?

Answer: <https://biology-forums.com/index.php?topic=372582>

### Question 897

The name applied to large quantities of interstellar dust and gas is \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374595>

### Question 898

Mountain building causes metamorphism because \_\_\_\_\_.

- A) mountains form by the gradual buildup of material that comes from other areas and this can produce an uneven pressure on rocks
- B) mountains are heavy and they push shallow, cool rocks to depths where they get heated
- C) mountains are heavy and they compress the rocks under them.
- D) all of the above

Answer: <https://biology-forums.com/index.php?topic=372744>

### Question 899

Micro-organisms called foraminifera have tiny coiled shells with chambers, not unlike the chambering nautilus but much smaller. In modern oceans the coiling direction of foraminifera shells is correlated to temperature. Using coiling direction from foraminifera fossils is an example of \_\_\_\_\_.

- A) using the fossil as a paleo-depth indicator because water temperature varies with depth
- B) using the fossil's coiling direction as a proxy for climate because the surface water temperature would be highly correlated to surface temperature
- C) geomagic; the whole idea is preposterous
- D) using isotopes to fingerprint temperature

Answer: <https://biology-forums.com/index.php?topic=373746>

### Question 900

Where is the most severe weather typically located in a midlatitude cyclone?

- A) just north of the center of circulation
- B) just south of the center of circulation
- C) on the trailing cold front, south or west of the center of circulation
- D) on the warm front preceding the center of circulation

Answer: <https://biology-forums.com/index.php?topic=374193>

### Question 901

A brown mineral specimen and a green mineral specimen have identical hardness; therefore, they are the same mineral, but just happen to be different color

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372670>

### Question 902

crust mantle lithosphere core

Answer: <https://biology-forums.com/index.php?topic=372541>

### Question 903

The amount of energy released during a nuclear reaction was established by the well-known scientist named \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374533>

### Question 904

Oceanic island arcs are similar to continental volcanic arcs in that \_\_\_\_\_.

- A) oceanic island arcs form on continents when oceanic lithosphere is subducted
- B) major continental mountain ranges formed from island arcs
- C) oceanic islands arcs form by the same mechanism as continental arcs
- D) continental arcs make islands that are arc-shaped

Answer: <https://biology-forums.com/index.php?topic=373256>

### Question 905

The western U.S. climate is different from the western European climate because \_\_\_\_\_.

- A) the western U.S. has mountains near the coast and Europe does not
- B) the water along the western coast of the U.S. is warmer than the water along the coast of Europe
- C) the winds that dominate the weather in the U.S. come from the west but in Europe they come from the southeast
- D) the U.S. is significantly closer to the equator than Europe
- E) the water along the coast of Europe is warmer than the water along the western coast of the U.S.

Answer: <https://biology-forums.com/index.php?topic=374259>

### Question 906

When sand lithifies, the resulting rock is commonly called \_\_\_\_\_.

- A) sandstone
- B) breccia
- C) shale
- D) conglomerate

Answer: <https://biology-forums.com/index.php?topic=372722>

### Question 907

A tsunami can occur \_\_\_\_\_.

- A) when an explosive volcanic eruption occurs in someplace like Hawaii or Alaska
- B) any time there is an earthquake anywhere
- C) when an earthquake occurs along a coastline like in Japan or Indonesia
- D) when an earthquake occurs in the seafloor like along an oceanic plate boundary
- E) All of the above are correct.

Answer: <https://biology-forums.com/index.php?topic=373327>

### Question 908

One of the discoveries which led to the modern view of the solar system was that the orbits of the planets are \_\_\_\_\_.

- A) ellipses
- B) parabolas
- C) hyperbolas
- D) circles

Answer: <https://biology-forums.com/index.php?topic=374331>

### Question 909

Wintertime precipitation in \_\_\_\_\_ and \_\_\_\_\_ climates is chiefly associated with the passage of fronts connected with traveling middle-latitude cyclones.

Answer: <https://biology-forums.com/index.php?topic=374307>

### Question 910

When conditions appear favorable for tornado formation, a(n) \_\_\_\_\_ is issued for areas covering about 65,000 square kilometers.

Answer: <https://biology-forums.com/index.php?topic=374222>

### Question 911

You go for a hike across an outcropping of sandstone and you see large footprints in the sandstone. You have just found \_\_\_\_\_.

- A) proof of an ancient flood
- B) Bigfoot
- C) a trace fossil
- D) a mold

Answer: <https://biology-forums.com/index.php?topic=373546>

### Question 912

What is required for an igneous rock to weather?

- A) It must move downslope under the influence of gravity.
- B) It must be deposited by water or ice.
- C) It must be exposed at the surface of the Earth.
- D) It must be uplifted from where it was emplaced.

Answer: <https://biology-forums.com/index.php?topic=372694>

### Question 913

During the history of the earth there have been periods when all the continents were together in a supercontinent.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372565>

### Question 914

When Earth is closest to the Sun, its location is referred to as the \_\_\_\_\_ position.

Answer: <https://biology-forums.com/index.php?topic=374389>

### Question 915

You are interested in buying a piece of land overlooking the sea. You find a place atop a 50m high sea cliff. The lot is only about 30m wide but is 200m long parallel to the coast, so you think you are getting a large expanse of the coastline. What would be the most important thing to look for in considering this purchase?

- A) the view
- B) accessibility of the beach
- C) quality of the beach
- D) the stability of the sea cliff, rock type, etc.

Answer: <https://biology-forums.com/index.php?topic=373903>

### Question 916

In the present day, what is the most valuable non-living commodity obtained from sea floor?

- A) gold
- B) gas hydrate
- C) oil and gas
- D) sand and gravel

Answer: <https://biology-forums.com/index.php?topic=373750>

### Question 917

The force that generates wind is known as the \_\_\_\_\_ force.

Answer: <https://biology-forums.com/index.php?topic=374153>

### Question 918

Where will the North Star be, relative to the celestial coordinates, 12,000 years from now?

- A) Several degrees from the North Pole position, with Vega as the North Star.
- B) 23 1/2 degrees away from the pole, due to precession.
- C) Right where it is now; it isn't going anywhere.
- D) None of these is correct.

Answer: <https://biology-forums.com/index.php?topic=374354>

### Question 919

Spiral galaxies tend to resemble a pinwheel because \_\_\_\_\_.

- A) stars in the center of galaxy are moving more slowly than the ones on the outer edges.
- B) the stars in the center are very old and large while the outer edges of the galaxy contain the youngest and smallest stars
- C) stars are moving from the center to the edges of the galaxy
- D) the barred structures form twisted pathways that distort the flow patterns
- E) stars in the center of the galaxy are moving faster than the ones on the outer edges

Answer: <https://biology-forums.com/index.php?topic=374578>

### Question 920

Assuming rivers of comparable discharge, which type of stream would most likely be crossable by wading rather than having to swim?

- A) braided stream
- B) bedrock stream
- C) meandering stream
- D) There would be no difference.

Answer: <https://biology-forums.com/index.php?topic=373076>

### Question 921

The San Andreas fault in California is a good example of a(n) \_\_\_\_\_ plate boundary.

Answer: <https://biology-forums.com/index.php?topic=373287>

### Question 922

Land heats and cools more than water because \_\_\_\_\_.

- A) land is opaque so only the surface is heated
- B) water gives off its heat in the form of warm water vapor with less efficiency than land
- C) there is more water surfaces than land so the heat is spread out more efficiently in water bodies
- D) it takes more energy to heat land than to heat water but land retains the heat better

Answer: <https://biology-forums.com/index.php?topic=373988>

### Question 923

Which of the following is not a hypothesis for how life began?

- A) Outgassing and related volcanic materials brought proto amino acids to the surface of the earth.
- B) Asteroids and comets brought amino acids to Earth.
- C) Methane and ammonia in the early atmosphere combined with the help of lightning or ultraviolet light to produce the first amino acids.
- D) Methane and hydrogen sulfide from deep-sea hydrothermal vents and hot springs like those at Yellowstone National Park provided the necessary materials.

Answer: <https://biology-forums.com/index.php?topic=373655>

### Question 924

Because of the Coriolis effect, surface ocean currents are deflected to the \_\_\_\_\_ of their path of motion in the Northern Hemisphere.

- A) east
- B) west
- C) right
- D) left

Answer: <https://biology-forums.com/index.php?topic=373841>

### Question 925

The principle of superposition which states that in undeformed rocks, the younger rocks will be on top of older rocks, is particularly important because \_\_\_\_\_.

- A) it proved that life evolved by putting fossils in a logical order
- B) it supports the laws of gravity which indicate that rocks must be deposited on something that already exists
- C) it provided an order for assembling the relative ages of various rock layers
- D) it showed that the interior of the earth is not growing outward

Answer: <https://biology-forums.com/index.php?topic=373519>

### Question 926

Which has more of an impact on density in the oceans in general, temperature or salinity?

Answer: <https://biology-forums.com/index.php?topic=373821>

### Question 927

Hurricanes generally are \_\_\_\_\_.

- A) smaller than mid-latitude cyclones
- B) areas of heavy rainfall and strong winds
- C) larger than tornadoes
- D) all of these

Answer: <https://biology-forums.com/index.php?topic=374210>

### Question 928

We can tell a lot about the internal processes in the earth by looking at the exterior of the earth.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372558>

### Question 929

A triggering mechanism, such as heavy rains or an earthquake, are necessary for mass wasting to occur.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372985>

### Question 930

Which of the following is an essential characteristic of an index fossil?

- A) The fossils are exceptionally abundant and well preserved.
- B) The organism only lived for a short period of geologic time.
- C) The fossils occur in deep-water marine sediments, but the organism actually lived in the sunlit, surface layer of the ocean.
- D) The organism lived only in specific environments such as beaches or estuaries.

Answer: <https://biology-forums.com/index.php?topic=373556>

### Question 931

Very fine-grained iron oxide particles account for nearly all red, yellow, and brown soil colors.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372979>

### Question 932

If solar flares pose a danger to orbiting spacecraft and astronauts, how much warning is there for the danger?

- A) The danger is primarily from emission of neutrinos, which move at just below the speed of light; hence the warning is only a few seconds after a

feature is observed.

- B) The primary danger is from high energy particles that travel at the speed of the solar wind 500km/s, so there is ample warning of 3-5 days.
- C) There is no warning; the radiation arrives at the same time as the feature is observed because they all travel at the speed of light.
- D) The danger is from high energy particles moving thousands of km per second, so the warning is a few hours.

Answer: <https://biology-forums.com/index.php?topic=374514>

### Question 933

Most of the active volcanoes on land are located in a belt known as the \_\_\_\_\_.

- A) Gulf Coast zone
- B) Red Sea rift
- C) Mid-Pacific Ridge
- D) Ring of Fire

Answer: <https://biology-forums.com/index.php?topic=373427>

### Question 934

The position on Earth's surface directly above the earthquake source is called the \_\_\_\_\_.

- A) epicenter
- B) inertial point
- C) seismic zone
- D) focus

Answer: <https://biology-forums.com/index.php?topic=373303>

### Question 935

When warm moist air moves over a cold surface, \_\_\_\_\_ fog may result.

- A) steam
- B) advection
- C) upslope
- D) radiation

Answer: <https://biology-forums.com/index.php?topic=374059>

### Question 936

\_\_\_\_\_ continental margins occur where oceanic lithosphere is being subducted beneath the edge of a continent.

Answer: <https://biology-forums.com/index.php?topic=373760>

### Question 937

Which of the following is not an element that influences weather?

- A) wind
- B) longitude
- C) temperature
- D) humidity
- E) clouds

Answer: <https://biology-forums.com/index.php?topic=373931>

### Question 938

Which of the following best describes the process of eluviation?

- A) removal of soluble chemical constituents from the A and B soil horizons
- B) buildup of calcite in the B-horizon of pedocal soils
- C) feldspar decomposition and leaching of the soluble products from the C soil horizon
- D) removal of very fine-sized silt and clay particles from the A and E soil horizons

Answer: <https://biology-forums.com/index.php?topic=372920>

### Question 939

On the deep seafloor, organisms are widely distributed \_\_\_\_\_.

- A) to avoid predators
- B) because it is too cold to move and reproduction is slow
- C) because there is little variation and no photosynthesis
- D) because they have eaten most of their near neighbors

Answer: <https://biology-forums.com/index.php?topic=373804>

### Question 940

What are the mass and charge of an alpha particle?

Answer: <https://biology-forums.com/index.php?topic=373588>

### Question 941

What would have happened to the earth if it were 10% farther from the Sun?

- A) Our atmosphere would consist mainly of nitrogen.
- B) Our Sun would have burned out after a few hundred million years so life would not evolve.
- C) Liquid water and the water cycle would not exist.
- D) Our atmosphere would consist mainly of carbon dioxide.

Answer: <https://biology-forums.com/index.php?topic=373602>

### Question 942

The daily tidal range is GREATEST during what period of the lunar cycle?

- A) full moon
- B) first quarter
- C) new moon
- D) A and C

Answer: <https://biology-forums.com/index.php?topic=373905>

### Question 943

Ozone is concentrated in the \_\_\_\_\_.

- A) stratosphere
- B) mesosphere
- C) troposphere
- D) ionosphere

Answer: <https://biology-forums.com/index.php?topic=373938>

### Question 944

The nuclear reaction process of converting hydrogen nuclei into helium nuclei is called the \_\_\_\_\_ chain.

Answer: <https://biology-forums.com/index.php?topic=374531>

### Question 945

Active mountain belts are most likely to be found \_\_\_\_\_.

- A) scattered throughout continents
- B) along only the eastern margins of continents
- C) along the margins of continents
- D) in the interior regions of continents

Answer: <https://biology-forums.com/index.php?topic=372530>

### Question 946

The red color of emission nebulae comes from the \_\_\_\_\_.

- A) energy emission of helium
- B) energy emission of oxygen
- C) energy emission of hydrogen
- D) conversion of infrared light to visible light
- E) conversion of ultraviolet light to visible light

Answer: <https://biology-forums.com/index.php?topic=374549>

### Question 947

When a radioactive isotope decays by electron capture, the electron \_\_\_\_\_.

- A) makes the parent isotope into an ion with a charge of negative one
- B) combines with a neutron in the nucleus, raising the mass number of the daughter isotope by one
- C) combines with a proton in the nucleus; the atomic number of the daughter is one less than the parent
- D) makes the daughter isotope into an ion with a charge of positive one

Answer: <https://biology-forums.com/index.php?topic=373560>

### Question 948

The new generation of weather radar that is capable of detecting motion directly is called \_\_\_\_\_ radar.

Answer: <https://biology-forums.com/index.php?topic=374223>

### Question 949

"Rain long foretold, long last; short notice, soon past." The first five words of this weather proverb \_\_\_\_\_.

- A) refer to a warm front
- B) refer to an anticyclone
- C) refer to a cold front
- D) have no basis in fact

Answer: <https://biology-forums.com/index.php?topic=374178>

### Question 950

If you determine the number of days in a year with solar time and sidereal time how would they vary?

- A) A year measured in sidereal time would be about one day shorter than a year based on solar time.
- B) A year measured in sidereal time would be about one day longer than a year based on solar time.
- C) They wouldn't; a year is always about 365 1/4 days, and the 1/4 day is taken up with leap years.
- D) A year measured in sidereal time would be about 15 minutes different than a solar day, so the difference only accumulates over time.

Answer: <https://biology-forums.com/index.php?topic=374361>

### Question 951

Which of the following gases is an efficient absorber of the earth's emitted energy?

- A) oxygen
- B) carbon dioxide
- C) nitrogen
- D) argon
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=373935>

### Question 952

What causes ocean currents?

- A) winds
- B) unequal heating of the earth
- C) density differences in the oceans
- D) temperature differences in the oceans
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=373956>

### Question 953

Why do the minerals calcite and dolomite bubble with the mineral or its powder are placed in hydrochloric acid?

- A) Both minerals are sulfides, and the acid reacts to release sulfur dioxide gas.
- B) The acid and the mineral together react with oxygen in the air, releasing CO<sub>2</sub> gas.
- C) Both minerals are metal hydrides, and when placed in hydrochloric acid they give off hydrogen gas.
- D) The acid reacts with the mineral to release CO<sub>2</sub> gas that is bound into the crystal as carbonate ion.

Answer: <https://biology-forums.com/index.php?topic=372616>

### Question 954

An air mass from the Gulf of Mexico is labeled \_\_\_\_\_.

- A) mP
- B) cT
- C) mT
- D) cP

Answer: <https://biology-forums.com/index.php?topic=374167>

### Question 955

Soil belongs to the \_\_\_\_\_.

- A) atmosphere
- B) biosphere
- C) hydrosphere
- D) geosphere
- E) All of the above

Answer: <https://biology-forums.com/index.php?topic=372504>

### Question 956

Rocks and sand on beaches become rounded rapidly because \_\_\_\_\_.

- A) the swash action of waves rolls loose material up and down the beach, where it is abraded rapidly to produce rounded grains
- B) Beach sand is mostly calcium carbonate from reefs and so gets rounded easily
- C) rip currents move the sand offshore rapidly, abrading the fragments
- D) There is nothing particularly prominent in beaches that produces more rounding than other sedimentary processes.

Answer: <https://biology-forums.com/index.php?topic=373870>

### Question 957

Igneous rocks that contain mostly quartz and feldspar with small amounts of biotite would be described as having a(n) \_\_\_\_\_ composition.

Answer: <https://biology-forums.com/index.php?topic=372877>

### Question 958

Which planet, in addition to Earth, shows clear evidence of water erosion?

Answer: <https://biology-forums.com/index.php?topic=374456>

### Question 959

You are walking on the beach along the south-coast of Alaska. You see rocks cut by numerous faults that consist of basalt with evidence of eruption in the ocean, deep-water chert, mudstone, and sandstones with abundant volcanic material. What tectonic setting would you assign to these rocks?

- A) passive continental margin sequence
- B) forearc basin
- C) accretionary wedge
- D) continental interior basin

Answer: <https://biology-forums.com/index.php?topic=373471>

### Question 960

Grabens are formed by what type of faulting?

- A) strike-slip
- B) normal
- C) reverse
- D) collision

Answer: <https://biology-forums.com/index.php?topic=373461>

### Question 961

Consider a weathered rock or soil particle lying on a slope. How will the gravitational force pulling the particle downward along the land surface vary with the inclination of the slope?

- A) It is not affected by the slope angle.
- B) It will possibly increase or decrease as slope angle is lessened, depending upon other factors.
- C) It will increase as the slope angle is lessened.
- D) It will decrease as the slope angle is lessened.

Answer: <https://biology-forums.com/index.php?topic=372933>

### Question 962

Glaze is not a common weather term in the U.S., but it is probably associated with weather forecasts of \_\_\_\_\_.

- A) thunderstorms
- B) blizzards
- C) snowstorms
- D) hail storms
- E) ice storms

Answer: <https://biology-forums.com/index.php?topic=374068>

### Question 963

When air is unstable, the environmental lapse rate is \_\_\_\_\_.

- A) greater than the dry adiabatic rate
- B) zero
- C) less than the wet adiabatic rate
- D) greater than both the wet and dry adiabatic rates

Answer: <https://biology-forums.com/index.php?topic=374036>

### Question 964

Chemical compounds retain most of the characteristics of their constituent elements.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372663>

### Question 965

Discuss the features and characteristics of the Sun? Are they thought to be unique to the Sun or are they typical of other stars? How do any of these structures relate to the process of nuclear fusion which is thought to produce the Sun's energy?

Answer: <https://biology-forums.com/index.php?topic=374538>

### Question 966

When waves crash against a sea cliff, what is the main process that erodes the cliff?

- A) hydraulic pressure driven by the waves forcing water, air, or both into cracks, dislodging rocks from the cliff
- B) water flowing upward against the cliff, washing the cliff face of loose debris
- C) impact of the wave causing vibrations that trigger landslides
- D) abrasion by rocks flung against the cliff by the waves

Answer: <https://biology-forums.com/index.php?topic=373869>

### Question 967

In a(n) \_\_\_\_\_ fault, the hanging wall block moves up with respect to the footwall block.

- A) reverse
- B) abnormal
- C) normal
- D) strike slip

Answer: <https://biology-forums.com/index.php?topic=373459>

### Question 968

Which of the following is an economically important sedimentary rock?

- A) calcite
- B) coal
- C) marble
- D) pumice

Answer: <https://biology-forums.com/index.php?topic=372716>

### Question 969

What did the Mars rover Opportunity discover on Mars that relates to questions about the existence of water on Mars?

- A) The rover found sedimentary rocks that contained minerals that could only have formed by precipitation from water.
- B) The rover found no evidence of water ever having been on Mars.
- C) The rover found ice in the soil.
- D) The rover found liquid water emerging from a spring, freezing to ice.

Answer: <https://biology-forums.com/index.php?topic=374423>

### Question 970

What type of basin would be most likely to contain large amounts of sediments derived from a volcanic source?

- A) a forearc basin
- B) a passive continental margin
- C) a strike-slip basin
- D) a continental interior basin

Answer: <https://biology-forums.com/index.php?topic=373474>

### Question 971

A \_\_\_\_\_ is a well-tested and widely accepted view that best explains certain scientific observations.

- A) law
- B) hypothesis
- C) theory
- D) generalization

Answer: <https://biology-forums.com/index.php?topic=372489>

### Question 972

The asthenosphere is the second layer of the Earth characterized by \_\_\_\_\_.

- A) soft rocks that flow easily
- B) layers of both hard and soft rocks
- C) hard rocks that break
- D) magma

Answer: <https://biology-forums.com/index.php?topic=373243>

### Question 973

\_\_\_\_\_ have the highest velocities

- A) Primary waves (P-waves)
- B) Surface waves
- C) Refracted S-waves
- D) Secondary waves (S-waves)

Answer: <https://biology-forums.com/index.php?topic=373307>

### Question 974

Most galaxies are of this type.

Answer: <https://biology-forums.com/index.php?topic=374599>

### Question 975

Abundant moisture and warm temperatures result in high rates of chemical weathering.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372973>

### Question 976

During the early Paleozoic era, South America, Africa, Australia, Antarctica, India, and perhaps China comprised the vast southern continent of \_\_\_\_\_.

- A) Gondwanaland
- B) Pangaea
- C) Antindia
- D) Europe
- E) Laurasia

Answer: <https://biology-forums.com/index.php?topic=373646>

### Question 977

Because surface winds circulate around a midlatitude cyclone, why do they move from west to east across North America?

- A) The Bermuda high in the Atlantic ocean forces circulation it, which steers the storm systems in North America.
- B) The continental polar air mass that "pushes" the cold front drive the storm east.
- C) The storm is forced toward the warm arm mass, which "pulls" the storm toward it to the east.
- D) The winds aloft, particularly the jet stream, move from west to east and steer the storm system.

Answer: <https://biology-forums.com/index.php?topic=374188>

### Question 978

Modern geochronology studies recognize that most radiometric dates record a time when a mineral cools below a temperature where the mineral closes to gain or loss of parent and daughter isotopes. This "closure temperature" varies between different minerals and different isotopic systems. This has allowed the absolute dating of sedimentary rocks through dating of single crystals. For example, if a rock is heated above the closure temperature of the rocks constituent minerals, the date of that mineral provides a minimum age. In contrast, if the rock contains a mineral with a closure temperature higher than the maximum temperature reached by the rock, that mineral will retain the age from its source. The mineral zircon dated by U-Pb methods is an example.

So, you look at a rock that has Cretaceous fossils in it, but your paleontologist friend looks at them and cannot determine if they are Early or Late Cretaceous in age. The rock contains the mineral apatite, which accumulates He through the decay of U and Th, but closes to He loss at temperature of around 75°C. You know from the stratigraphic section that the rocks were originally buried at least 3km. The local geothermal gradient is about 35°C/km. You obtain an apatite He date of 105 +/- 2 million years. You also date 100 grains of zircon from the rock. The zircons yield dates that range in age from 2.1 billion years to 125 million years. Three different zircon grains yield ages between 125 and 127 million years. You google "cretaceous time scale" and learn that the Cretaceous begins at about 144 million years and ends at about 65 million years ago. The Early Cretaceous ends about 100 million years ago. How old are these sedimentary rocks?

Answer: <https://biology-forums.com/index.php?topic=373597>

### Question 979

Seismic gaps are places where scientists think that \_\_\_\_\_.

- A) earthquakes are unlikely to occur
- B) faults are creeping smoothly
- C) faults are storing elastic strain
- D) faults are storing stress

Answer: <https://biology-forums.com/index.php?topic=373339>

### Question 980

Building stone, sand and gravel, and fertilizers are industrial materials that are a special class ore deposits but are usually subject to the same regulations as other ores.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372679>

### Question 981

The principal technique for finding ocean depth today is \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373759>

### Question 982

A(n) \_\_\_\_\_ is the vast, relatively deep, flat, sediment-covered portion of the deep-ocean basin.

Answer: <https://biology-forums.com/index.php?topic=373766>

### Question 983

At the center of a hurricane is a relatively calm region called the \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374225>

### Question 984

confining pressure differential stress melting chemical fluids

Answer: <https://biology-forums.com/index.php?topic=372847>

### Question 985

The differences in summer and winter temperatures are greatest for locations \_\_\_\_\_.

- A) near 60 degrees north or south latitude
- B) near the Poles
- C) near the tropic of Cancer or Capricorn
- D) near the equator
- E) The location does not affect the range of temperatures.

Answer: <https://biology-forums.com/index.php?topic=373965>

### Question 986

From the land surface downward to the unweathered bedrock, which of the following is the correct order of the different soil horizons?

- A) D, E, C, B, A, bedrock
- B) O, A, E, B, C, bedrock
- C) A, B, C, D, E, bedrock
- D) E, A, B, C, O, bedrock

Answer: <https://biology-forums.com/index.php?topic=372921>

### Question 987

\_\_\_\_\_ averages 35 to 40 km in thickness.

Answer: <https://biology-forums.com/index.php?topic=373359>

### Question 988

Which climate is situated on the western (windward) side of continents, from about 40 to 65 degrees north and south latitude?

Answer: <https://biology-forums.com/index.php?topic=374309>

### Question 989

Environmental science always involves a large component of Earth Science.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372546>

### Question 990

According to your textbook, soil is an interface between Earth's spheres, and all life owes its existence to soil. Explain why soil is considered to be so important.

Answer: <https://biology-forums.com/index.php?topic=373037>

### Question 991

A geologist observes abundant fossils of a distinctive trilobite species in a shale, but this trilobite disappears as she walks through the shale. In younger rocks, just above the horizon where the fossil disappears another species of trilobite becomes the prominent fossil in similar shales. Which conclusion is most logical for this observation?

- A) The organisms whose remains form the first fossil moved from the area for unknown reasons.
- B) The first trilobite species went extinct and its ecological niche was occupied by another species, which may have evolved from the first.
- C) The second, trilobite group in the upper section went extinct where the change in fossils is seen.
- D) A hurricane or other catastrophe killed all of the early species so the other species could move in.

Answer: <https://biology-forums.com/index.php?topic=373557>

### Question 992

Minerals that crystallize directly from seawater are examples of \_\_\_\_\_.

- A) both terrigenous and biogenous sediment
- B) biogenous sediment
- C) terrigenous sediment
- D) hydrogenous sediment

Answer: <https://biology-forums.com/index.php?topic=373742>

### Question 993

A(n) \_\_\_\_\_ marks the site where old, oceanic lithosphere begins its descent into a subduction zone.

Answer: <https://biology-forums.com/index.php?topic=373767>

### Question 994

\_\_\_\_\_ temperature changes are those that do not involve the addition or subtraction of heat.

Answer: <https://biology-forums.com/index.php?topic=374081>

### Question 995

Sailors in the 16th-18th century dreaded "rounding the horn" because of strong winds and heavy seas. Cape Horn is about latitude 55°S at the tip of South America. These sailors considered this a passage from the Atlantic to Pacific oceans, but this ocean is now often called \_\_\_\_\_.

- A) the Antarctic Ocean
- B) the Southern Ocean
- C) the Indian Ocean
- D) the Australian Ocean

Answer: <https://biology-forums.com/index.php?topic=373706>

### Question 996

Under similar warm, moist climatic conditions, why would basalt and gabbro generally have higher chemical weathering rates than rhyolite and granite?

- A) The potassium feldspars and quartz in the rhyolite and granite are more susceptible to cracking by frost wedging.
- B) The ferromagnesian minerals in the gabbro and basalt are subject to oxidation and chemical breakdown.
- C) The plagioclase feldspars in the granite and rhyolite decompose readily to clay minerals and iron oxides.
- D) The quartz in the gabbro and basalt decomposes very quickly.

Answer: <https://biology-forums.com/index.php?topic=372904>

### Question 997

On this date the length of daylight gets progressively longer going south from the equator.

- A) September 21

- B) June 21
- C) December 21
- D) March 21

Answer: <https://biology-forums.com/index.php?topic=373962>

### Question 998

Plate Tectonic boundaries were first identified by \_\_\_\_\_.

- A) mapping continental margins
- B) mapping earthquakes and volcanoes
- C) mapping subduction zone
- D) mapping the mountain chains

Answer: <https://biology-forums.com/index.php?topic=373240>

### Question 999

Dark Silicates have a specific gravity of 3.2 to 3.6 and are composed primarily of silica tetrahedral and \_\_\_\_\_.

- A) iron and magnesium
- B) potassium and calcium
- C) aluminum and magnesium
- D) potassium and iron
- E) aluminum and sodium

Answer: <https://biology-forums.com/index.php?topic=372630>

### Question 1000

One group of reptiles, exemplified by the fossil Archaeopteryx, led to the evolution of \_\_\_\_\_.

- A) mammals
- B) horses
- C) cephalopods
- D) dinosaurs
- E) birds

Answer: <https://biology-forums.com/index.php?topic=373668>

### Question 1001

If magma or lava cools quickly, the resulting igneous rock will have \_\_\_\_\_.

- A) very small crystals
- B) more silicate minerals
- C) very large crystals
- D) more variations in mineral types

Answer: <https://biology-forums.com/index.php?topic=372699>

### Question 1002

If all of the ice now stored in Antarctica's glaciers melted, what would happen?

- A) Sea level would rise flooding many coastal cities.
- B) Because glacial melt water is less dense than sea water, the glacial melt will float on top of the ocean and not affect the land areas.
- C) Ice bergs would float to the equatorial regions of the earth where they would lower the temperature and cause the climate to become cooler.
- D) Sea water would become fresh enough to drink because glaciers are made of fresh water.

Answer: <https://biology-forums.com/index.php?topic=373192>

### Question 1003

In a monocline, one of the limbs of the fold \_\_\_\_\_.

- A) dips in the same direction as the other limb, but at a lower angle
- B) is horizontal
- C) has a shallower dip in the opposite direction of the other limb
- D) is vertical

Answer: <https://biology-forums.com/index.php?topic=373453>

### Question 1004

In tropical regions the surface temperature of the oceans is high but decreases rapidly with depth between 300 and 1000 meters because \_\_\_\_\_.

- A) tropical regions are areas of high rainfall and this rapidly lowers the temperature of seawater
- B) rapidly upwelling cold currents occur in these regions
- C) sunlight cannot penetrate much below the surface of the oceans

D) volcanic activity on the seafloor is rare in the tropics  
E) cold water from the polar regions flows just below the surface  
Answer: <https://biology-forums.com/index.php?topic=373787>

### Question 1005

Salinity in the ocean is highest in regions where \_\_\_\_\_ is high and \_\_\_\_\_ is low.  
A) precipitation; evaporation  
B) evaporation; precipitation  
C) precipitation; temperature  
D) temperature; evaporation  
Answer: <https://biology-forums.com/index.php?topic=373783>

### Question 1006

A poleward-moving ocean current is \_\_\_\_\_.  
A) cold  
B) warm  
C) warm only in the Northern Hemisphere  
D) warm only in the Southern Hemisphere  
Answer: <https://biology-forums.com/index.php?topic=373840>

### Question 1007

All of the following are possible steps of scientific investigation except for \_\_\_\_\_.  
A) assumption of conclusions without prior experimentation or observation  
B) development of observations and experiments to test the hypotheses  
C) the development of one or more working hypotheses or models to explain facts  
D) the collection of scientific facts through observation and measurement  
Answer: <https://biology-forums.com/index.php?topic=372491>

### Question 1008

Which of the following events is not part of the history associated with the Big Bang Theory?  
A) Our Sun formed approximately 9 billion years after the universe formed.  
B) The first matter formed 380,000 years after the formation of the universe.  
C) Just before Big Bang occurred, there was only energy and disassociated electrons and protons.  
D) About 13.7 billion years ago, our universe started with a huge explosion.  
Answer: <https://biology-forums.com/index.php?topic=374543>

### Question 1009

Seaweed (large marine algae) grows in shallow coastal regions because \_\_\_\_\_.  
A) there is more sunlight reaching the seafloor in those regions  
B) they require fresh water to reproduce  
C) the surf is an important part of their mobility  
D) they feed on the organisms washed into the ocean from nearby land  
Answer: <https://biology-forums.com/index.php?topic=373803>

### Question 1010

Abyssal plains are very flat because \_\_\_\_\_.  
A) they have flat faults, the form flat, planar topography  
B) basalt volcanos on the seafloor produce little terrain  
C) sediments accumulate to cover the seafloor topography  
D) they are not really flat; it is just that there is no data so they are shown as flat  
Answer: <https://biology-forums.com/index.php?topic=373729>

### Question 1011

The waste gas released by plants as they synthesize food sugars from carbon dioxide and water is \_\_\_\_\_.  
A) nitrogen  
B) methane  
C) carbon dioxide  
D) oxygen  
Answer: <https://biology-forums.com/index.php?topic=373620>

### Question 1012

Diffused light is caused by \_\_\_\_\_.

- A) scattering of solar radiation by water molecules
- B) scattering of solar radiation by dust particles and gas molecules
- C) solar radiation striking an irregular surface and being partially absorbed
- D) solar radiation striking surface water at a low angle
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=373976>

### Question 1013

Describe the concept of "red shift" and how this observation relates to theories that the universe is expanding.

Answer: <https://biology-forums.com/index.php?topic=374536>

### Question 1014

An identifying characteristic of convergent boundaries is \_\_\_\_\_.

- A) long linear valleys with faults along the sides
- B) linear mountain chains on the seafloor
- C) seamounts and atolls on the seafloor
- D) deep, linear trenches in the seafloor

Answer: <https://biology-forums.com/index.php?topic=373264>

### Question 1015

The asthenosphere is a relatively cool and rigid shell that overlies the lithosphere.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372567>

### Question 1016

Shield volcanos form from what type of magma?

- A) low viscosity basalt magmas
- B) low viscosity rhyolite magmas
- C) high viscosity aa basalt magmas
- D) high viscosity rhyolite magmas

Answer: <https://biology-forums.com/index.php?topic=373396>

### Question 1017

When excited electrons decay to ground state, hydrogen emits along distinctive line near the visible red. An astronomer observes what appear to be hydrogen emission lines from a distant star but they are in the infrared spectral band. She concludes \_\_\_\_\_.

- A) her instrument needs to be recalibrated
- B) the star's hydrogen emission must be being absorbed by water in the atmosphere, which then re-emits in the infrared
- C) the star must be moving very fast toward Earth
- D) the star must be moving very fast away from Earth

Answer: <https://biology-forums.com/index.php?topic=374481>

### Question 1018

The low-lying zones that are alternately covered by water during flood tide and exposed following ebb tide are called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373926>

### Question 1019

A sand ridge connecting an island to the mainland or to another island is a \_\_\_\_\_.

- A) tombolo
- B) jetty
- C) sea stack
- D) breakwater

Answer: <https://biology-forums.com/index.php?topic=373878>

### Question 1020

A variety of techniques and efforts are used to stabilize shorelines throughout the world. Are all of these efforts only temporary measures or are any of

them permanent? Also, does urbanization and development of coastal areas always contribute to shoreline erosion? Explain.

Answer: <https://biology-forums.com/index.php?topic=373929>

### Question 1021

Landslides commonly occur when hurricanes hit steep terrain. Why?

- A) The high winds produce a shear stress on the slopes, triggering mass movements.
- B) The high winds uproot trees, weakening the slope and inducing mass wasting.
- C) Heavy rain from the tropical system can saturate slopes, triggering mass wasting events like mudslides.
- D) The correlation with hurricanes is coincidental.

Answer: <https://biology-forums.com/index.php?topic=372941>

### Question 1022

The heat transfer mechanism that requires the movement of material is \_\_\_\_\_.

- A) contraction
- B) conduction
- C) radiation
- D) convection

Answer: <https://biology-forums.com/index.php?topic=373969>

### Question 1023

The common rock produced by the metamorphism of limestone is \_\_\_\_\_.

- A) phyllite
- B) mica schist
- C) gneiss
- D) marble

Answer: <https://biology-forums.com/index.php?topic=372832>

### Question 1024

Tropical wet and dry climates are located \_\_\_\_\_ of the wet tropics and \_\_\_\_\_ of the tropical deserts.

Answer: <https://biology-forums.com/index.php?topic=374302>

### Question 1025

Which of the following is not a fossil?

- A) a mummified sloth in a cave
- B) a tooth from an early man site in a lake sediment deposit
- C) imprint of an invertebrate shell in a mudstone
- D) None of the above-these are all fossils.

Answer: <https://biology-forums.com/index.php?topic=373541>

### Question 1026

How do glaciers acquire their load of sediment?

- A) Sediments are plowed up into the glacier by the front terminus of the glacier as it moves downhill.
- B) Sediments are deposited on glaciers by streams that flow into the glaciers.
- C) Sediments are plucked off the rocks at the base and sides of the glacier.
- D) Sediments fall off the cliffs surrounding the glacier and move through crevasses to the base of the glacier.
- E) All of the answers describe major contributors to the glacial sediment load.

Answer: <https://biology-forums.com/index.php?topic=373178>

### Question 1027

Mount St. Helens and the other Cascade volcanoes are \_\_\_\_\_.

- A) old, deeply eroded stratovolcanoes built before the Pacific Ocean existed
- B) old, deeply eroded, basaltic shield volcanoes built when western North America was over the present-day site of the Hawaiian hot spot
- C) young, active stratovolcanoes built on a continental margin above a sinking slab of oceanic lithosphere
- D) a row of young, active, shield volcanoes built as western North America moved over a hot spot deep in the mantle

Answer: <https://biology-forums.com/index.php?topic=373258>

### Question 1028

electron capture alpha emission delta capture beta emission

Answer: <https://biology-forums.com/index.php?topic=373579>

### Question 1029

Describe the sequence of events that occur when a fully developed midlatitude cyclone passes just to your north, including cloud sequences, frontal passages, and barometric conditions.

Answer: <https://biology-forums.com/index.php?topic=374226>

### Question 1030

Which one of the following statements is true about the equinoxes?

- A) The length of daylight at the Arctic and Antarctic Circles is 24 hours.
- B) The Sun's vertical rays are striking either the Tropic of Cancer or the Tropic of Capricorn.
- C) They occur in June and December.
- D) Days and nights are equal in length everywhere.

Answer: <https://biology-forums.com/index.php?topic=373961>

### Question 1031

An igneous rock that cools deep inside the Earth is called a(n) \_\_\_\_\_ igneous rock

Answer: <https://biology-forums.com/index.php?topic=372876>

### Question 1032

A halo around the Sun or Moon indicates that this cloud type is present.

- A) cumulonimbus
- B) altostratus
- C) cirrus
- D) cirrostratus

Answer: <https://biology-forums.com/index.php?topic=374054>

### Question 1033

Af and Am climates form a discontinuous belt astride the \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374303>

### Question 1034

The \_\_\_\_\_ is the most prominent feature on the ocean floor.

Answer: <https://biology-forums.com/index.php?topic=372580>

### Question 1035

The ratio of parent to daughter isotopes in a radioactive decay process is 0.40. How many half-lives have elapsed since the material was 100% parent atoms?

- A) between 1 and 2
- B) less than 1
- C) more than 3
- D) between 2 and 3

Answer: <https://biology-forums.com/index.php?topic=373561>

### Question 1036

In the figure, the stress on block 'Z' is \_\_\_\_\_.

- A) shear
- B) folding
- C) tensional
- D) compressional

Answer: <https://biology-forums.com/index.php?topic=373444>

### Question 1037

If you observe a nonconformity, you would infer that the region had experienced \_\_\_\_\_.

- A) uplift and tilting of sedimentary units that exposes them to erosion over a period of time with subsequent renewed deposition
- B) deposition in shallow water, uplift or lowering of sea level enough to expose the rocks to erosion and non-deposition for a period of time, and subsequent resubmergence of the remaining sedimentary units where they experience new deposition
- C) intrusion of igneous rocks into a depositional setting, forcing the sedimentary layers upward and possibly deforming them, followed by subsidence of the remaining sedimentary layers and renewed deposition
- D) deposition of sedimentary layers on crystalline igneous or metamorphic rocks that are exposed at the surface of the earth

Answer: <https://biology-forums.com/index.php?topic=373527>

### Question 1038

Evaluate the following statement, addressing what parts, if any, are right and which are wrong:

Jointing in rocks does not affect the flow of groundwater at depths greater than 10-20m because all fractures close below that depth. Jointing is important, however, to engineers interested in stability of slopes and locating structures because joints can slide or open under gravitational forces on slopes.

Answer: <https://biology-forums.com/index.php?topic=373505>

### Question 1039

The advantage for fishers to choose a population that feeds close to the primary producing population is that \_\_\_\_\_.

- A) energy transfer between trophic levels is inefficient and this will increase the available biomass
- B) they will be close to shore so it is easier to fish those regions
- C) there will be a bigger variety of food available in those locations because there will be several trophic levels available
- D) it is easier to recover more biomass from the fish because they have not wasted energy swimming after food
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=373814>

### Question 1040

Located adjacent to red on the electromagnetic spectrum, and having a longer wavelength, is \_\_\_\_\_ radiation, which we cannot see but which we can detect as heat.

Answer: <https://biology-forums.com/index.php?topic=373997>

### Question 1041

A cubic centimeter of quartz, olivine, and gold weighs 2.5, 3.0, and 19.8 grams, respectively. This indicates that \_\_\_\_\_.

- A) gold has a higher density and specific gravity than quartz and olivine
- B) gold is 6 to 7 times harder than olivine and quartz
- C) olivine and quartz powders are harder than metallic gold
- D) gold and olivine are silicates, whereas quartz is elemental silicon

Answer: <https://biology-forums.com/index.php?topic=372619>

### Question 1042

The greatest danger from pyroclastic flows is \_\_\_\_\_.

- A) being smothered by hot gases and ash.
- B) being buried in ash.
- C) not significant because they move so slowly they can be avoided.
- D) being incinerated by the hot gas and entrained magma.

Answer: <https://biology-forums.com/index.php?topic=373409>

### Question 1043

In a climatological sense, dryness is a function of both annual rainfall and \_\_\_\_\_.

- A) evaporation
- B) wind direction
- C) slope
- D) altitude
- E) solar radiation

Answer: <https://biology-forums.com/index.php?topic=374253>

### Question 1044

As you go up in elevation, the temperature \_\_\_\_\_.

- A) increases
- B) decreases
- C) stays constant
- D) It depends on what atmospheric layer you are in.
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=373949>

### Question 1045

Which type of unconformity would generally indicate the greatest amount of erosion prior to deposition of the overlying rocks?

- A) disconformity
- B) angular unconformity
- C) buttress unconformity
- D) nonconformity

Answer: <https://biology-forums.com/index.php?topic=373535>

### Question 1046

Most active faults pose a risk to society because they can potentially produce \_\_\_\_\_.

- A) tsunamis
- B) disruptions in groundwater flow
- C) earthquakes
- D) landslides

Answer: <https://biology-forums.com/index.php?topic=373457>

### Question 1047

All atoms of the same element have the same atomic number.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372660>

### Question 1048

Which of the following is not a discovery made by the Hubble Space Telescope?

- A) deep space images never seen before
- B) demonstration that disk shaped dust clouds are common around young stars
- C) distinction of the various rings of Saturn
- D) evidence for massive black holes in the center of our galaxy

Answer: <https://biology-forums.com/index.php?topic=374493>

### Question 1049

Electrical attractions between atoms lower the total energy of the bonded atoms and make them more stable.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372664>

### Question 1050

\_\_\_\_\_ averages roughly 7 km thick.

Answer: <https://biology-forums.com/index.php?topic=373360>

### Question 1051

You observe a distinct, red sandstone rock body about 50 m thick that is depositionally overlain by a red shale with interbedded gypsum and you follow this boundary in the rock bodies for 1 km until you cross a fault which has displaced the boundary between the two rock bodies. You walk along the fault and see a boundary between a 50 m thick red sandstone and overlying red shale interbedded with gypsum. You conclude \_\_\_\_\_.

- A) the second exposure of sandstone, shale and gypsum correlates to the first, and the boundary between the sandstone and shale is the same stratigraphic horizon
- B) this new exposure of sandstone, shale and gypsum must be a different age rock unit
- C) the stratigraphic section must have been inverted by the deformation; the rocks are upside down
- D) this is impossibly complex; the fault broke up all the rocks

Answer: <https://biology-forums.com/index.php?topic=373554>

### Question 1052

Structures called \_\_\_\_\_ are built parallel to the shoreline to protect boats from the force of large breaking waves.

Answer: <https://biology-forums.com/index.php?topic=373924>

### Question 1053

Which of the following was an important factor in determining the different parts of the solar system where the small rocky planets formed versus where the light, gaseous planets formed?

- A) velocity
- B) temperature
- C) viscosity

D) density

E) gravity

Answer: <https://biology-forums.com/index.php?topic=373611>

### Question 1054

What is the most common place for sediment to be deposited?

A) rivers

B) beaches

C) oceans

D) mountains

Answer: <https://biology-forums.com/index.php?topic=372695>

### Question 1055

Earth Venus Mars Jupiter

Answer: <https://biology-forums.com/index.php?topic=374449>

### Question 1056

focus seismograph epicenter fault

Answer: <https://biology-forums.com/index.php?topic=373348>

### Question 1057

Explain why Wegner's use of shorelines to match continents in his reconstruction of Pangaea was criticized by other geoscientists and how that issue was subsequently resolved in Plate Tectonic Theory.

Answer: <https://biology-forums.com/index.php?topic=373288>

### Question 1058

In Rodinia, a well-documented Precambrian supercontinent, \_\_\_\_\_.

A) North America and South America made up one continuous fragment

B) North America was the last collision in the formation of the supercontinent

C) the Rocky Mountains were located to the south of the North American craton

D) there is no evidence of North America

E) North America was located near the center of the supercontinent

Answer: <https://biology-forums.com/index.php?topic=373633>

### Question 1059

Repeated freezing and thawing can be important in soil creep movements.

A) [b]True[/b]

B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=373005>

### Question 1060

Island arc systems now on the Tibet plateau record subduction prior to the collision of India with Eurasia. Geologists would map these pre-collisional arc rocks as \_\_\_\_\_.

A) terranes

B) pre-collisional transform zones

C) rift zones

D) hot spot tracks

Answer: <https://biology-forums.com/index.php?topic=373479>

### Question 1061

sea breeze Chinook winds valley breeze trade winds

Answer: <https://biology-forums.com/index.php?topic=374149>

### Question 1062

The Bergeron Process suggests that the coexistence of ice crystals and supercooled water droplets in a cloud is ideal for producing rain because \_\_\_\_\_.

A) the ice crystals have a stronger affinity for liquid water than does water vapor

B) the liquid water has a stronger affinity for water vapor than do ice crystals.

C) the ice crystals provide the nuclei for snowflakes to form as precipitation

- D) the ice crystals provide nuclei needed to form more water droplets
- E) the ice crystals have a stronger affinity for water vapor than does liquid water.

Answer: <https://biology-forums.com/index.php?topic=374064>

### Question 1063

Which of the following is correct regarding a wave in the open ocean?

- A) Water particles move in an almost circular path.
- B) Waves do not exist in the open ocean — only near the coast.
- C) Such waves are called waves of oscillation.
- D) None of these

Answer: <https://biology-forums.com/index.php?topic=373857>

### Question 1064

The spectra of most stars are dark-line spectra because \_\_\_\_\_.

- A) electrons decaying to a lower energy state emit a photon at a fixed energy, leaving dark bands between the emissions
- B) elements in the Sun's outer atmosphere emit radiation between these dark bands
- C) elements in the Sun's outer atmosphere absorb in these dark-line bands, blocking the radiation in those bands
- D) elements in the earth's atmosphere absorb in these dark-line bands, blocking out the frequencies in the dark bands

Answer: <https://biology-forums.com/index.php?topic=374479>

### Question 1065

What atmospheric gas is common in the outer planets but rare in the inner planets?

- A) Argon
- B) Carbon Dioxide
- C) Hydrogen
- D) Nitrogen

Answer: <https://biology-forums.com/index.php?topic=374400>

### Question 1066

The cloud form that is best described as sheets or layers that cover much or all of the sky is termed \_\_\_\_\_.

- A) stratus
- B) cumulus
- C) cirrus
- D) alto

Answer: <https://biology-forums.com/index.php?topic=374046>

### Question 1067

Sea level rise can be caused by \_\_\_\_\_.

- A) the formation of supercontinents
- B) slow seafloor spreading
- C) slow erosion from continents that increase the size of land masses and displace water
- D) rapid erosion from continents that increase the sediment load in the oceans
- E) fast seafloor spreading

Answer: <https://biology-forums.com/index.php?topic=373635>

### Question 1068

The part of the Sun clearly visible during a solar eclipse is \_\_\_\_\_.

- A) the mesosphere
- B) the photosphere
- C) the chromospheres
- D) the corona

Answer: <https://biology-forums.com/index.php?topic=374509>

### Question 1069

What is the smallest particle of matter that exhibits and defines the distinctive chemical characteristics of the individual elements?

Answer: <https://biology-forums.com/index.php?topic=372683>

### Question 1070

stalagmite soda straw sinkhole stalactite

Answer: <https://biology-forums.com/index.php?topic=373123>

### Question 1071

Tsunamis and earthquakes have killed millions of people during human history. What branch of the Earth sciences is the main group that studies these phenomena?

- A) Meteorology
- B) Geology
- C) Oceanography
- D) Astronomy

Answer: <https://biology-forums.com/index.php?topic=372484>

### Question 1072

One measurement that is widely used to determine how far the focus of an earthquake is from the seismograph where it is recorded is \_\_\_\_\_.

- A) the difference in amplitude between the P and the S wave
- B) the difference in travel time between the P and the S wave
- C) the amplitude of the S-wave
- D) the amplitude of the P-wave

Answer: <https://biology-forums.com/index.php?topic=373325>

### Question 1073

The best building material to use in an earthquake prone region is \_\_\_\_\_.

- A) concrete
- B) brick
- C) stone
- D) wood

Answer: <https://biology-forums.com/index.php?topic=373330>

### Question 1074

Which one of the following is most likely to be associated both with impact craters and with volcanic calderas that originate by collapse?

- A) landslides and other mass wasting movements along the walls of the depression
- B) outwardly radiating, fragmental, bright, surface streaks
- C) sharp, central peaks that rise above the floor of the depression
- D) sharp rims that rise well above the surrounding area far away from the edge of the depression

Answer: <https://biology-forums.com/index.php?topic=374403>

### Question 1075

When waves reach shallow water, they are often bent and tend to become parallel to the shore. This process is termed \_\_\_\_\_.

- A) translation
- B) refraction
- C) reflection
- D) oscillation

Answer: <https://biology-forums.com/index.php?topic=373863>

### Question 1076

The cloud form that consists of globular cloud masses that take on a billowy or "cauliflowerlike" structure is called \_\_\_\_\_.

- A) cumulus
- B) alto
- C) cirrus
- D) stratus

Answer: <https://biology-forums.com/index.php?topic=374047>

### Question 1077

In the late 1700s James Hutton published his important work titled \_\_\_\_\_.

- A) Principles of Geology
- B) Modern Earth Science
- C) Catastrophism
- D) Theory of the Earth

Answer: <https://biology-forums.com/index.php?topic=373512>

### Question 1078

What was the main view how the world worked geologically prior to the 1960s?

- A) It was generally believed that the earth was flat.
- B) It was generally believed that continents and oceans moved.
- C) It was generally believed that mountains were produced by vertical forces.
- D) It was generally believed that oceans formed as a result of meteorite impacts.

Answer: <https://biology-forums.com/index.php?topic=373228>

### Question 1079

The lithosphere is the outer layer of the earth characterized by \_\_\_\_\_.

- A) hard rocks that break
- B) magma
- C) layers of both hard and soft rocks
- D) soft rocks that flow easily

Answer: <https://biology-forums.com/index.php?topic=373242>

### Question 1080

Half Dome in Yosemite National Park, California, and Stone Mountain in Georgia are shaped mainly by what mechanical weathering process?

Answer: <https://biology-forums.com/index.php?topic=373009>

### Question 1081

The densest stars known to exist are \_\_\_\_\_.

- A) white dwarfs
- B) black holes
- C) neutron stars
- D) red dwarfs

Answer: <https://biology-forums.com/index.php?topic=374556>

### Question 1082

Earth Science is the only science that doesn't use mathematics beyond simple arithmetic.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372545>

### Question 1083

If all of the olivine crystallized in a typical magma and then settled to the floor of the magma chamber, would there still be enough elements present in the magma to form quartz?

Answer: <https://biology-forums.com/index.php?topic=372880>

### Question 1084

Which one of the following is not related to chemical weathering?

- A) hydrolysis
- B) frost wedging
- C) oxidation
- D) decomposition

Answer: <https://biology-forums.com/index.php?topic=372728>

### Question 1085

The \_\_\_\_\_ climates are land-controlled climates, the result of broad continents in the middle latitudes.

- A) A
- B) B
- C) C
- D) D
- E) E

Answer: <https://biology-forums.com/index.php?topic=374266>

### Question 1086

A place located along a windward coast will probably have \_\_\_\_\_.

- A) cooler summer temperatures than an inland location at the same latitude
- B) summer temperatures that are very similar to an inland location at the same latitude
- C) warmer summer temperatures than an inland location at the same latitude
- D) none of these

Answer: <https://biology-forums.com/index.php?topic=373985>

### Question 1087

pahoehoe aa volcanic bomb pillow lava

Answer: <https://biology-forums.com/index.php?topic=373433>

### Question 1088

If you observe a disconformity, you would infer that the region had experienced \_\_\_\_\_.

- A) deposition of sedimentary layers on crystalline igneous or metamorphic rocks that are exposed at the surface of the earth.
- B) intrusion of igneous rocks into a depositional setting, forcing the sedimentary layers upward and possibly deforming them, followed by subsidence of the remaining sedimentary layers and renewed deposition
- C) deposition in shallow water, uplift or lowering of sea level enough to expose the rocks to erosion and non-deposition for a period of time, and subsequent resubmergence of the remaining sedimentary units where they experience new deposition
- D) uplift and tilting of sedimentary units that exposes them to erosion over a period of time with subsequent renewed deposition

Answer: <https://biology-forums.com/index.php?topic=373526>

### Question 1089

Most minerals have a higher specific gravity than water.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372668>

### Question 1090

\_\_\_\_\_ are small, extraterrestrial particles that glow brightly and burn up as they travel through Earth's atmosphere.

- A) Mesocoronas
- B) Asteroids
- C) Meteoroids
- D) Microcomets

Answer: <https://biology-forums.com/index.php?topic=374445>

### Question 1091

Oceanic crust is composed primarily of \_\_\_\_\_.

- A) granite
- B) andesite
- C) sandstone
- D) basalt

Answer: <https://biology-forums.com/index.php?topic=373347>

### Question 1092

calcite feldspar quartz olivine

Answer: <https://biology-forums.com/index.php?topic=372650>

### Question 1093

hydrosphere biosphere atmosphere solid earth

Answer: <https://biology-forums.com/index.php?topic=372540>

### Question 1094

The mass of an atom comes from its electrons.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372656>

### Question 1095

Most substances are electrically neutral.

- A) [b]True[/b]

B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372658>

### Question 1096

The development of \_\_\_\_\_, organisms that reproduce sexually and have cells that contain nuclei, may have increased dramatically the rate of evolutionary change.

Answer: <https://biology-forums.com/index.php?topic=373691>

### Question 1097

For more than 70 years, the best-known and most used climate classification system has been the \_\_\_\_\_ classification.

- A) Smith
- B) Klingel
- C) Hutton
- D) Köppen
- E) Saffir

Answer: <https://biology-forums.com/index.php?topic=374236>

### Question 1098

The seafloor spreading process at ridges produces what kind of faults?

- A) oblique-slip faults
- B) normal faults
- C) strike-slip faults
- D) thrust fault

Answer: <https://biology-forums.com/index.php?topic=373735>

### Question 1099

Bed load Cap load Dissolved load Suspended load

Answer: <https://biology-forums.com/index.php?topic=373119>

### Question 1100

Earth receives energy from the Sun in this way.

- A) radiation
- B) conduction
- C) convection
- D) all of these

Answer: <https://biology-forums.com/index.php?topic=373973>

### Question 1101

Tropical cyclones produce the most intense low-pressure systems on earth. To develop and maintain this low pressure, what must happen aloft in this type of storm?

- A) The storm must push the tropopause far into the stratosphere to maintain the low pressure.
- B) A strong divergent flow (outflow) aloft must keep up with, or exceed, the inflow near the surface.
- C) Rain must fall to force thunderstorms to collapse to keep the air circulation going.
- D) A strong jet stream flow must be present to maintain the inward flow.

Answer: <https://biology-forums.com/index.php?topic=374118>

### Question 1102

What is GPS (Global Positioning System) used for in the study of plate tectonics?

- A) It measures age of a plate.
- B) It measures velocity of a plate.
- C) It measures elevation of a plate.
- D) It measures paleomagnetism.

Answer: <https://biology-forums.com/index.php?topic=373278>

### Question 1103

Which of the following best describes bedded gypsum and rock salt?

- A) varieties of dolostone
- B) varieties of coal and peat
- C) evaporates; chemical, sedimentary rocks

D) detrital sedimentary rocks

Answer: <https://biology-forums.com/index.php?topic=372738>

### Question 1104

The largest lithospheric plate is the \_\_\_\_\_.

- A) Pacific Plate
- B) Caribbean Plate
- C) North American Plate
- D) Eurasian Plate

Answer: <https://biology-forums.com/index.php?topic=373245>

### Question 1105

The \_\_\_\_\_ were the dominant trees of the Mesozoic era.

Answer: <https://biology-forums.com/index.php?topic=373695>

### Question 1106

When the Sun crosses the celestial equator, and day and night are of equal length around the globe, it is the time of the \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374386>

### Question 1107

Was this mountain building process an Andean type mountain building event, a collisional event, or both; and what might have been subducted to produce the over-thickened oceanic crust that drove the orogeny?

Answer: <https://biology-forums.com/index.php?topic=373507>

### Question 1108

Apparent changes in the position of the magnetic pole measured in rocks in Europe is attributed to \_\_\_\_\_.

- A) polar wandering
- B) random magnetic reversals
- C) movement of lithospheric plates
- D) changes in the solar flux

Answer: <https://biology-forums.com/index.php?topic=373275>

### Question 1109

The average distance from Earth to the Sun is called the \_\_\_\_\_ unit.

Answer: <https://biology-forums.com/index.php?topic=374379>

### Question 1110

Slump describes the very slow, downhill movement of soil and regolith.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372984>

### Question 1111

The problems encountered with lenses caused this scientist to build reflecting telescopes of his own design.

- A) Galileo
- B) Niels Bohr
- C) George Hale
- D) Albert Einstein
- E) Sir Isaac Newton

Answer: <https://biology-forums.com/index.php?topic=374482>

### Question 1112

An altimeter is an adaptation of the \_\_\_\_\_.

- A) aneroid barometer
- B) mercurial barometer
- C) barograph
- D) anemometer

Answer: <https://biology-forums.com/index.php?topic=374100>

### Question 1113

The lunar maria are large impact craters filled with \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374453>

### Question 1114

The total amount of solid material dissolved in water is known as \_\_\_\_\_.

- A) salinity
- B) load
- C) solute
- D) insoluble residue

Answer: <https://biology-forums.com/index.php?topic=373777>

### Question 1115

The Appalachian Mountains formed as a result of \_\_\_\_\_.

- A) the break-up of Pangaea
- B) the collision of North America and Africa
- C) the collision of North America and Europe
- D) the initial formation of Pangaea
- E) the collision of Greenland and Norway

Answer: <https://biology-forums.com/index.php?topic=373639>

### Question 1116

A mass wasting process that involves rotational motion of material sliding above a distinct slip surface is called \_\_\_\_\_.

- A) a slump
- B) a rock avalanche
- C) a rock fall
- D) a rock slide

Answer: <https://biology-forums.com/index.php?topic=372943>

### Question 1117

Which form of chemical weathering specifically affects the iron contained in ferromagnesian, rock-forming, silicate minerals?

Answer: <https://biology-forums.com/index.php?topic=373010>

### Question 1118

Cloud water droplets remain a liquid to temperatures as low as \_\_\_\_\_.

- A) -10°C
- B) -40°C
- C) 0°C
- D) -25°C
- E) 0°F

Answer: <https://biology-forums.com/index.php?topic=374062>

### Question 1119

All of the following are evidence supporting the theory of plate tectonics except for \_\_\_\_\_.

- A) ocean floor drilling
- B) hot spots
- C) paleomagnetism
- D) changes in the Moon's orbit due to shifting plates

Answer: <https://biology-forums.com/index.php?topic=373272>

### Question 1120

An atom's mass number is 13 and its atomic number is 6. How many neutrons are in its nucleus?

- A) 13
- B) 6
- C) 19
- D) 7

Answer: <https://biology-forums.com/index.php?topic=372593>

### Question 1121

Sedimentary rocks make up approximately 60 percent of the rocks in the Earth's crust.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372861>

### Question 1122

The best definition of the outer edge of the continental shelf is that point where \_\_\_\_\_.

- A) it meets an oceanic ridge
- B) the water depth reaches 100 fathoms
- C) a rapid steepening of the gradient occurs
- D) the gradient becomes very gentle

Answer: <https://biology-forums.com/index.php?topic=373714>

### Question 1123

Limestone is formed primarily through \_\_\_\_\_.

- A) chemical interactions between ocean bottom sediments and ions in sea water
- B) biochemical sediments secreted by marine organisms
- C) direct precipitation from seawater
- D) evaporation of calcite rich seawater

Answer: <https://biology-forums.com/index.php?topic=372726>

### Question 1124

The length of daylight on the Moon is about \_\_\_\_\_.

- A) two weeks
- B) one year
- C) one month
- D) 48 hours
- E) 24 hours

Answer: <https://biology-forums.com/index.php?topic=374362>

### Question 1125

Which of the following is in a place where continental rifting is occurring today?

- A) Himalayan Mountains in India and surrounding regions
- B) Mt. Kilimanjaro in East Africa
- C) Andes in South America
- D) Mt. Fuji in Japan

Answer: <https://biology-forums.com/index.php?topic=373254>

### Question 1126

Planetesimals, asteroid-size objects, form during the early history of the solar nebula due to \_\_\_\_\_.

- A) vortices in the rotating disc associated with the protosun
- B) collisions of particles of ice, metal, and rocky material rotating about the protosun
- C) the formation of comets in the outer parts of the solar nebula
- D) the break-up of the solar nebula as it cools and contracts

Answer: <https://biology-forums.com/index.php?topic=373608>

### Question 1127

Which of the following is a tidal current?

- A) flood tide
- B) spring tide
- C) ebb tide
- D) both flood and ebb tide

Answer: <https://biology-forums.com/index.php?topic=373904>

### Question 1128

Which of the following is not a major factor controlling glacial erosion?

- A) strength of the glacial ice near its base

- B) ice thickness
- C) character of the surface beneath the glacier
- D) rate of glacial ice movement

Answer: <https://biology-forums.com/index.php?topic=373182>

### Question 1129

Why does magma viscosity vary with silica content?

- A) Increasing silica content lowers the melting temperature and since increasing the temperature of a magma decreases viscosity increasing silica content increases viscosity.
- B) There is no correlation between silica content and magma viscosity.
- C) Increasing silica content increases the amount of water a magma can dissolve and water decreases magma viscosity, so increasing silica content decreases magma viscosity.
- D) Increasing silica increases a tendency for silica bonds to link up in networks, acting like a polymerization of the magma.

Answer: <https://biology-forums.com/index.php?topic=373378>

### Question 1130

The major driving force of Plate Tectonics is \_\_\_\_\_.

- A) decompression melting and the rise of magmas at spreading ridges
- B) heating of magma near the surface of the lithosphere
- C) subduction of hot lithosphere
- D) subduction of cold, dense lithosphere

Answer: <https://biology-forums.com/index.php?topic=373279>

### Question 1131

We know from the Apollo missions and unmanned probes that the moon's surface is covered with loose, unconsolidated material with a texture similar to soil on earth. How did this material form on the moon?

- A) The same as Earth, but soils are ancient from a time when the moon still had an atmosphere and water.
- B) The material is produced by spalling from rock surfaces caused by the extreme heat-cold cycles as the moon rotates through a 1 lunar day, or approximately one Earth month.
- C) The loose material is mostly micrometeorite fragments and ejecta from impact craters, so is very different from soil on Earth.
- D) The material is mostly volcanic ash ejected from volcanos that are no longer active.

Answer: <https://biology-forums.com/index.php?topic=374410>

### Question 1132

In a radio telescope, the electromagnetic energy is gathered by \_\_\_\_\_.

- A) a parabolic metallic mirror, commonly wire mesh
- B) a glass mirror with a reflective coating, similar to an optical telescope
- C) a solid slab or copper metal, formed into the shape of a parabola
- D) a spherical thin metal foil that refracts the radio waves to a point

Answer: <https://biology-forums.com/index.php?topic=374491>

### Question 1133

The movement of Earth in its orbit around the Sun is referred to as \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373995>

### Question 1134

gradient velocity capacity discharge

Answer: <https://biology-forums.com/index.php?topic=373118>

### Question 1135

Which electrons are responsible for most chemical bonding?

- A) middle electron shell because they are intermediate in distance between the nucleus and the adjacent atom that bonds with the atom
- B) outer electron shell because these electrons can be readily exchanged with adjacent atoms
- C) innermost electron shell because the electrons can be transferred to the nucleus
- D) Any electron can exchange with adjacent atoms to form a bond; there is no preference.

Answer: <https://biology-forums.com/index.php?topic=372596>

### Question 1136

If stormy weather were approaching, the pressure tendency would probably be \_\_\_\_\_.

- A) rising
- B) falling
- C) steady
- D) none of these

Answer: <https://biology-forums.com/index.php?topic=374117>

### Question 1137

During the Cambrian, Trilobites developed a flexible exoskeleton which allowed them to \_\_\_\_\_.

- A) sink to the bottom of shallow ponds to find food
- B) avoid being eaten by other creatures
- C) climb trees and find food
- D) eat smaller life forms by crushing them in their jaws
- E) burrow in soft sediment to find food

Answer: <https://biology-forums.com/index.php?topic=373661>

### Question 1138

Which one of the following is an igneous rock?

- A) rhyolite
- B) shale
- C) limestone
- D) slate

Answer: <https://biology-forums.com/index.php?topic=372710>

### Question 1139

You live in a seismically active area and there are steep mountain slopes that show evidence of past large landslides. A geologist uses radiocarbon dating and determines that all of the landslides are 1000 +/- 5 years old. He also determines that there is an active fault in the area that moved in the last 1000-2000 years but he can't date it precisely. Which of the following is a reasonable conclusion?

- A) There was probably an earthquake ~1000 years ago.
- B) There must have been a major drought 1000 years ago that triggered the landslides.
- C) There must have been people in the area 1000 years ago, and they cut down the trees that were dated for determining the age of the landslide.
- D) Radiocarbon dating is not a good dating technique or it could separate the ages of the slides.

Answer: <https://biology-forums.com/index.php?topic=372940>

### Question 1140

Midlatitude deserts and steppes form because \_\_\_\_\_.

- A) they are in the interiors of continents
- B) they are in high mountains
- C) rising air masses are associated with low pressure
- D) they form at middle latitudes everywhere
- E) subsiding air masses are associated with high pressure

Answer: <https://biology-forums.com/index.php?topic=374252>

### Question 1141

Briefly explain how deep trenches form.

Answer: <https://biology-forums.com/index.php?topic=373293>

### Question 1142

plankton nekton neritic benthos

Answer: <https://biology-forums.com/index.php?topic=373816>

### Question 1143

Why were planets called "wanderers" by early Astronomers?

- A) They move relative to the moon because of their orbits around the earth.
- B) They move relative to the stars.
- C) They move in random paths across the sky due to their complex orbits around the Sun.
- D) They move relative to the North Star, but not other stars.

Answer: <https://biology-forums.com/index.php?topic=374320>

### Question 1144

The apparent westward "drift" of the planets compared to the background stars is called \_\_\_\_\_.

- A) precession
- B) occultation
- C) retrograde motion
- D) Ptolemaic motion

Answer: <https://biology-forums.com/index.php?topic=374322>

### Question 1145

The most abundant sedimentary rock is shale.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372865>

### Question 1146

All of the following are factors affecting mass wasting except for \_\_\_\_\_.

- A) geologic age
- B) water
- C) slope angle
- D) gravity

Answer: <https://biology-forums.com/index.php?topic=372952>

### Question 1147

The zigzag movement of sand grains along a beach is \_\_\_\_\_.

- A) called beach drift
- B) caused by obliquely breaking waves
- C) very unusual and seldom occurs
- D) both caused by obliquely breaking waves and called beach drift

Answer: <https://biology-forums.com/index.php?topic=373867>

### Question 1148

TV meteorologists often point at things labeled L on a map and describe them as low pressure centers. What are they?

- A) midlatitude cyclones
- B) low pressure centers that are mini-equivalents of hurricanes
- C) severe weather systems with tornadoes
- D) low level pressure centers, hence the term L

Answer: <https://biology-forums.com/index.php?topic=374189>

### Question 1149

The remains or traces of prehistoric life are called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373586>

### Question 1150

Which of the following is a reasonable approximation of the rate that plates move?

- A) the speed a turtle walks
- B) the speed of deep ocean currents
- C) the rate of growth of human hair or fingernails
- D) the speed of a mountain glacier

Answer: <https://biology-forums.com/index.php?topic=372519>

### Question 1151

Confining pressure is where \_\_\_\_\_.

- A) forces are applied equally in all directions
- B) pressure is applied in a cubic region
- C) forces are applied from the top and the bottom equally
- D) pressure is parallel to the bedding planes

Answer: <https://biology-forums.com/index.php?topic=372749>

### Question 1152

Which of the following is not something that happens to incoming radiation?

- A) transmitted
- B) absorbed
- C) heated
- D) reflected

Answer: <https://biology-forums.com/index.php?topic=373974>

### Question 1153

Convergent plate boundaries are \_\_\_\_\_.

- A) sites where heat from the earth's interior is vented to the surface as volcanos
- B) sites where cold, downgoing convective cells, the plates, descent into the mantle
- C) areas where two plates slide laterally past one another, generating earthquakes, like the San Andrea fault
- D) sites of supervolcanos like Yellowstone

Answer: <https://biology-forums.com/index.php?topic=372513>

### Question 1154

Which one of the following is not found on Mars?

- A) sand dunes
- B) polar ice caps
- C) extinct volcanoes
- D) H<sub>2</sub>O-rich atmosphere

Answer: <https://biology-forums.com/index.php?topic=374413>

### Question 1155

A prominent feature of the Mid-Atlantic Ridge is a very deep linear valley known as a(n) \_\_\_\_\_ valley.

Answer: <https://biology-forums.com/index.php?topic=373769>

### Question 1156

Why is the vertical movement of air critical to the formation of clouds and precipitation?

What role do adiabatic temperature changes play in these processes?

Answer: <https://biology-forums.com/index.php?topic=374093>

### Question 1157

When viewed through an optical telescope, planetary nebula \_\_\_\_\_.

- A) show the explosive form of the dead sun
- B) are spherical in form and often have "rings" like Saturn
- C) have visible planets within their cloud of debris
- D) still have planets orbiting the cloud
- E) look like giant planets such as Jupiter

Answer: <https://biology-forums.com/index.php?topic=374551>

### Question 1158

Streams of protons and electrons emitted from the Sun produce \_\_\_\_\_.

- A) prominences
- B) plages
- C) quasars
- D) granules
- E) the solar wind

Answer: <https://biology-forums.com/index.php?topic=374505>

### Question 1159

What is the ideal way, if cost is no object, for a telescope to avoid atmospheric disturbance?

- A) Place it on land, as far from the ocean as possible.
- B) Place it in a very dry climate, like the deserts in Chile.
- C) Place it in space.
- D) Place it on a very high mountain.

Answer: <https://biology-forums.com/index.php?topic=374489>

### Question 1160

Quartz has a characteristic conchoidal fracture, yet rock shops often sell quartz as elongate six sided objects with a pointed termination. What causes

this shape?

- A) You should never buy a crystal like this because it is clearly fake, only artificial crystals grow this way.
- B) The rock shop cuts them that way with abrasives. The facets are cut to give the crystals more "power" for the crystal people.
- C) Quartz usually is amorphous, consistent with its conchoidal fracture, but when it grows it grows against minerals with planar faces, causing this shape.
- D) The planar faces that form the object are crystal faces that grow when the crystals grew into a void.

Answer: <https://biology-forums.com/index.php?topic=372618>

### Question 1161

The wavelength or the distance from peak to peak of energy waves is a characteristic of \_\_\_\_\_.

- A) convection
- B) conduction
- C) radiation
- D) contraction

Answer: <https://biology-forums.com/index.php?topic=373971>

### Question 1162

Any change in the air's \_\_\_\_\_ content could alter temperatures in the lower atmosphere.

- A) acid
- B) oxygen
- C) smoke
- D) nitrogen
- E) carbon dioxide

Answer: <https://biology-forums.com/index.php?topic=374274>

### Question 1163

This pressure zone is associated with abundant precipitation and warm temperatures.

- A) subpolar low
- B) subtropical high
- C) equatorial low
- D) polar high

Answer: <https://biology-forums.com/index.php?topic=374125>

### Question 1164

The modern oceans are a major repository for the greenhouse gas \_\_\_\_\_, which some organisms utilize to make their shells.

- A) Iron oxide
- B) Limestone
- C) Ammonia
- D) SiO<sub>2</sub>
- E) CO<sub>2</sub>

Answer: <https://biology-forums.com/index.php?topic=373625>

### Question 1165

What is the name of a Phanerozoic era that means ancient life?

Answer: <https://biology-forums.com/index.php?topic=373592>

### Question 1166

Most granitic batholiths represent \_\_\_\_\_.

- A) the exhumed roots of a subduction related magmatic arc
- B) a deeply exhumed passive continental margin
- C) a deeply exhumed forearc rock assemblage
- D) magmas generated in a rift system, prior to development of a passive margin

Answer: <https://biology-forums.com/index.php?topic=373467>

### Question 1167

Why does magma rise toward the Earth's surface?

- A) because it is immiscible and cannot combine with the material around it
- B) because it is a liquid
- C) because it is hot
- D) because it is less dense than the material around it

Answer: <https://biology-forums.com/index.php?topic=372693>

### Question 1168

Among plankton, animals that drift on ocean currents are specifically known as \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373832>

### Question 1169

At high latitudes the thermocline is \_\_\_\_\_.

- A) about the same as at low latitudes
- B) narrower than at low latitudes
- C) wider than at low latitudes
- D) There is no thermocline at high latitudes.
- E) There is no thermocline at low latitudes.

Answer: <https://biology-forums.com/index.php?topic=373791>

### Question 1170

Pillow lavas are \_\_\_\_\_.

- A) andesitic bombs erupted from a cinder cone that accumulate as pillow-like masses around the cone
- B) rhyolite glasses that develop a banding that resembles a pillow case with internal snowflake obsidian that looks like feathers
- C) basaltic magmas erupted on the seafloor as magma blobs from an explosive, submarine eruption
- D) basaltic lava tubes erupted on the seafloor in volcanic piles analogous to toothpaste extruded from a tube

Answer: <https://biology-forums.com/index.php?topic=373390>

### Question 1171

The boundary between two terranes or two continents that have collided is called a \_\_\_\_\_.

- A) weld
- B) suture
- C) join
- D) stitch

Answer: <https://biology-forums.com/index.php?topic=373480>

### Question 1172

The town of Grand Isle, Louisiana is built on a barrier island that has been shrinking for decades. They have tried the following approaches to protect the island from coastal erosion. Which of these is not a feature intended to simulate natural barrier island beach processes?

- A) placement of large concrete donuts on the seabed in the surf zone
- B) construction of artificial dunes and planting coastal grasses on the dunes
- C) placement of groins
- D) offshore sand dredging and deposition to rebuild the beach

Answer: <https://biology-forums.com/index.php?topic=373897>

### Question 1173

Which common mineral is composed entirely of silicon and oxygen?

- A) quartz
- B) diamond
- C) olivine
- D) calcite

Answer: <https://biology-forums.com/index.php?topic=372638>

### Question 1174

Why would astronomers be interested in placing a gamma ray detecting observatory in space?

- A) to map high-energy electromagnetic waves from distant sources that would be blocked out or scattered by Earth's atmosphere
- B) to detect nuclear weapons tests on Earth
- C) to map gamma ray emissions coming from the Sun
- D) to map gamma ray emissions from radioactive elements on Earth

Answer: <https://biology-forums.com/index.php?topic=374494>

### Question 1175

Kepler's third law states that the planet's orbital period squared is equal to its mean solar distance cubed. Consequently, the solar distances of the planets can be calculated when their periods of revolution are known. The orbital period of Jupiter is 12 years, what is its distance from the sun in

astronomical units?

- A) 12
- B) 16.1
- C) 5.2
- D) 530

Answer: <https://biology-forums.com/index.php?topic=374343>

### Question 1176

The point in stellar evolution when a star has used up all its fuel and is radiating away its remaining thermal energy as light is the \_\_\_\_\_ stage.

- A) white dwarf
- B) red giant
- C) main-sequence star
- D) black hole

Answer: <https://biology-forums.com/index.php?topic=374574>

### Question 1177

In the Northern Hemisphere, the winds associated with a low pressure system (cyclone) blow \_\_\_\_\_.

- A) clockwise and toward the center
- B) counterclockwise and outward from the center
- C) counterclockwise and toward the center
- D) clockwise and outward from the center

Answer: <https://biology-forums.com/index.php?topic=374120>

### Question 1178

Global warming appears to be thawing the permafrost as indicated by \_\_\_\_\_.

- A) houses sinking into the ground in Alaska
- B) disappearing lakes in the Arctic
- C) increased surface waters in the Arctic
- D) all of the above

Answer: <https://biology-forums.com/index.php?topic=374290>

### Question 1179

All of the earth's ocean basins are \_\_\_\_\_.

- A) less than 2 million years old
- B) less than 2000 million years old
- C) less than 200 million years old
- D) less than 20 million years old

Answer: <https://biology-forums.com/index.php?topic=373252>

### Question 1180

Isobars are lines on a weather map representing what?

- A) lines of equivalent air speed
- B) lines of equal elevation for the tropopause
- C) lines showing equal density of bars
- D) lines of equal air pressure

Answer: <https://biology-forums.com/index.php?topic=374106>

### Question 1181

Paleontology is the study of \_\_\_\_\_.

- A) ancient life
- B) paleo meaning old, and ontology referring to philosophical study of nature, so paleontology is the study of old nature
- C) prehistoric human history
- D) none of the above

Answer: <https://biology-forums.com/index.php?topic=373540>

### Question 1182

The best modern technique for obtaining high resolution bathymetry of the seafloor is \_\_\_\_\_.

- A) multibeam bathymetry
- B) sidescan sonar
- C) seismic reflection profiling

D) echo sounding

Answer: <https://biology-forums.com/index.php?topic=373708>

### Question 1183

The reason scientists believe the reflective bright nebulae contain more heavy materials than the emission bright nebulae is that \_\_\_\_\_.

- A) they are dimmer than a low density source could produce
- B) they are blue, and that color is associated with carbon
- C) they are brighter than a low density source could produce
- D) they reflect more colors than the emission nebulae
- E) they glow brighter than an energy emission source could produce

Answer: <https://biology-forums.com/index.php?topic=374550>

### Question 1184

The presence of which one of the following would indicate that the land had been uplifted or that sea level had fallen?

- A) a sea stack
- B) elevated marine terrace
- C) a tombolo
- D) an estuary

Answer: <https://biology-forums.com/index.php?topic=373873>

### Question 1185

Manganese nodules are an example of \_\_\_\_\_ sediment.

Answer: <https://biology-forums.com/index.php?topic=373771>

### Question 1186

Which of the following is not a mechanism that will cause air to rise?

- A) frontal Wedging
- B) orographic lifting
- C) convective cooling
- D) conduction cooling
- E) convergence

Answer: <https://biology-forums.com/index.php?topic=374028>

### Question 1187

Little Johnnie from down the street from your house brings an object that looks like a bone, and Johnnie says "look, I found a dinosaur bone." Which of the following would not be useful in evaluating Johnnie's claim?

- A) Evaluate the object for fine textures indicative of bone material or replaced bone material.
- B) Extract charcoal from the object and use carbon-14 dating
- C) Ask if the object was found embedded in rock.
- D) Examine the object for hardness to determine if the sample is permineralized.

Answer: <https://biology-forums.com/index.php?topic=373548>

### Question 1188

Sedimentary rocks are an important source of information about the Earth's history.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372862>

### Question 1189

sand dune deflation blowout desert pavement

Answer: <https://biology-forums.com/index.php?topic=373212>

### Question 1190

The \_\_\_\_\_ effect causes ocean currents to be deflected to the right of their path of motion in the Northern Hemisphere.

Answer: <https://biology-forums.com/index.php?topic=373916>

### Question 1191

List three agents of metamorphism.

Answer: <https://biology-forums.com/index.php?topic=372883>

### Question 1192

The line separating the dark half of Earth from the light half is called the \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373994>

### Question 1193

During a total lunar eclipse, the moon remains visible because \_\_\_\_\_.

- A) the atmosphere of the earth refracts light around its perimeter
- B) the earth is too far from the moon to totally cover the solar disk
- C) the atmosphere of the moon diffuses light from the other side of the moon
- D) None of the above; the moon completely disappears against the night sky.

Answer: <https://biology-forums.com/index.php?topic=374368>

### Question 1194

Which of the following is not a significant volcanic hazard?

- A) injury or death by inhalation of air heavily laden with volcanic ash
- B) being caught in a river valley and being overcome by a volcanic mudflow/lahar
- C) being overrun by a fast moving basaltic lava flow
- D) a tsunami generated by a massive submarine volcanic eruption

Answer: <https://biology-forums.com/index.php?topic=373412>

### Question 1195

A mineral can be composed entirely of one element.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372653>

### Question 1196

Venus has dense clouds and thick atmosphere, yet there is no evidence for water on the surface. Why?

- A) The water is bound up as sulfuric acids and other acids in the atmosphere.
- B) It is hard to know because the clouds obscure the surface and only a few probes have survived landing.
- C) Water could not survive as liquid water on the surface because it is too hot.
- D) The water has all been taken up in minerals on the surface due to weather long ago because of high chemical weathering rates.

Answer: <https://biology-forums.com/index.php?topic=374421>

### Question 1197

The asthenosphere is the liquid layer in the upper mantle that the plates move on.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372561>

### Question 1198

artificial levees dams floodplains channelization

Answer: <https://biology-forums.com/index.php?topic=373121>

### Question 1199

The electrical discharge of lightning rapidly heats the air, which in turn causes it to expand explosively to produce \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374221>

### Question 1200

Downcutting (also known as rejuvenation) of a stream may be due to \_\_\_\_\_.

- A) a decreased gradient
- B) uplift of land
- C) rising of sea level
- D) thermal expansion

Answer: <https://biology-forums.com/index.php?topic=373090>

### Question 1201

Organisms contribute to soils formation by \_\_\_\_\_.

- A) stirring the soil to allow air infiltration
- B) degrading organic matter to form humus
- C) contributing organic matter to the soil
- D) all of the above

Answer: <https://biology-forums.com/index.php?topic=372916>

### Question 1202

By the late \_\_\_\_\_ period, true air-breathing amphibians with fish-like heads and tails had evolved.

Answer: <https://biology-forums.com/index.php?topic=373693>

### Question 1203

A weather system is moving from west to east. You look at a weather map and see that you are in an area of closely spaced isobars with the center just to your east, but the spacing of the isobars increases away from you. What would you forecast for wind conditions?

- A) Winds will increase.
- B) Winds will increase then decrease.
- C) Winds will stay the same.
- D) Winds will decrease.

Answer: <https://biology-forums.com/index.php?topic=374112>

### Question 1204

A stream begins at an elevation of 200 meters and flows a distance of 400 kilometers to the ocean. What is the average gradient?

- A) 0.5 m/km
- B) 2 km/m
- C) 0.5 km/in
- D) 2 m/km

Answer: <https://biology-forums.com/index.php?topic=373057>

### Question 1205

What does Bowen's reaction series tell us about how rocks evolve?

Answer: <https://biology-forums.com/index.php?topic=372886>

### Question 1206

Oysters are an invertebrate that lives today in brackish waters along coastal zones. When a geologist working in stratified rocks observes a limestone bed with oyster fossils overlain by beds with clam and echinoderm fossils indicative of marine conditions, the fossils probably indicate \_\_\_\_\_.

- A) the environment changed as sea level rose, displacing the oysters environment with marine conditions represented by the clams and echinoderms
- B) the oysters evolved into clams and echinoderms
- C) the oysters went extinct while these rocks were being deposited
- D) There is not sufficient information to reach any conclusion from these observations.

Answer: <https://biology-forums.com/index.php?topic=373555>

### Question 1207

Geologists may choose to lick a mineral to identify it. What mineral is the geologist expecting with this test?

- A) NaCl (halite) or KCl (sylvite)
- B) a sulfide bearing rock which will taste like rotten eggs
- C) None, it clears the dust off the sample so he/she can see if more clearly.
- D) None, they are clearing the hydrochloric acid from the sample to rerun a test for calcite.

Answer: <https://biology-forums.com/index.php?topic=372613>

### Question 1208

Bowen's reaction series predicts the sizes of the different mineral grains that grow from crystallizing magmas.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372855>

### Question 1209

A mineralogist studies minerals and their origins. A mineralogist studying the Earth system would \_\_\_\_\_.

- A) do the same thing, studying minerals and their origins, as any other mineralogist
- B) study how minerals influence organisms living on them, how they react with water to produce soil forming minerals, or study how wind transports

minerals as dust and influences climate

- C) study how minerals form rocks
- D) Minerals can never be used to study the Earth system.

Answer: <https://biology-forums.com/index.php?topic=372537>

### Question 1210

Which one of the following is not part of the continental margin?

- A) continental trench
- B) continental shelf
- C) continental slope
- D) continental rise

Answer: <https://biology-forums.com/index.php?topic=373711>

### Question 1211

advection fog steam fog radiation fog upslope fog

Answer: <https://biology-forums.com/index.php?topic=374076>

### Question 1212

A stream's turbulence is strongly influenced by its \_\_\_\_\_.

- A) viscosity
- B) sediment load
- C) temperature
- D) sinuosity
- E) velocity

Answer: <https://biology-forums.com/index.php?topic=373054>

### Question 1213

Which two elements combine to make most of the common rock forming minerals in the crust?

- A) nitrogen and oxygen
- B) silicon and oxygen
- C) carbon and nitrogen
- D) carbon and oxygen
- E) silicon and nitrogen

Answer: <https://biology-forums.com/index.php?topic=372622>

### Question 1214

When caves on opposite sides of a headland unite, a(n) \_\_\_\_\_ results.

Answer: <https://biology-forums.com/index.php?topic=373922>

### Question 1215

The city of New Orleans is in the delta of a great river. During hurricane Katrina most of the city flooded but the area along the river, like the French Quarter, did not. Why didn't these areas flood?

- A) The water couldn't flow fast enough to cover these areas and was halted before it could flood these areas.
- B) These areas were natural levees of the river, and were higher in elevation than adjacent areas.
- C) The army corps of engineers must have dredged the river and built these areas up before the city was built.
- D) The river flowed away from these areas into other parts of the city when it broke the levees, and these areas just happened to be spared.

Answer: <https://biology-forums.com/index.php?topic=373096>

### Question 1216

Light colored silicates have a specific gravity of about 2.7 grams/cm<sup>3</sup> are composed primarily of the silica tetrahedra and \_\_\_\_\_.

- A) potassium, aluminum, magnesium, and sodium
- B) potassium, calcium, sodium, and aluminum
- C) magnesium, aluminum, sodium, and calcium
- D) iron, magnesium, calcium, and sodium
- E) aluminum, magnesium, calcium, and iron

Answer: <https://biology-forums.com/index.php?topic=372628>

### Question 1217

What happens to the change in temperature for unsaturated air that is rising when it reaches its saturation point?

- A) Latent heat of condensation will be released and will decrease the rate of change of temperature for the rising air.
- B) The saturated air is too heavy to continue to rise, so it begins to sink and will continue to rise and fall until some equilibrium state is achieved.
- C) It stops rising until it loses water vapor as precipitation.
- D) It continues to rise and the temperature continues to change in the same way it did before saturation.
- E) Latent heat of condensation will be released and will increase the rate of change of temperature for the rising air.

Answer: <https://biology-forums.com/index.php?topic=374026>

### Question 1218

Which of the following energy sources is thought to drive the lateral motions of Earth's lithospheric plates?

- A) swirling movements of the molten iron particles in the outer core
- B) heat transfer between the earth's interior and the surface of the earth
- C) gravitational attractive forces of the Sun and Moon
- D) electrical and magnetic fields localized in the inner core

Answer: <https://biology-forums.com/index.php?topic=372512>

### Question 1219

What type of volcanic material is indicative of eruption under water?

- A) Lava aprons
- B) Pahoehoe flows
- C) AA flows
- D) Pyroclastic flows
- E) Pillow lavas

Answer: <https://biology-forums.com/index.php?topic=373376>

### Question 1220

fossil evidence fit of the continents paleomagnetism ancient climates

Answer: <https://biology-forums.com/index.php?topic=373282>

### Question 1221

slab pull mantle drag ridge push hot spot track

Answer: <https://biology-forums.com/index.php?topic=373285>

### Question 1222

Records indicate that sea level has \_\_\_\_\_ since 1870.

- A) decreased by 2.5 meters
- B) risen by 25 centimeters
- C) risen by 2.5 meters
- D) decreased by 25 centimeters
- E) not changed

Answer: <https://biology-forums.com/index.php?topic=374286>

### Question 1223

List the two broad, traditional subject areas of geologic study.

Answer: <https://biology-forums.com/index.php?topic=372573>

### Question 1224

Detrital sedimentary rocks are typically classified on the basis of their \_\_\_\_\_.

- A) lithology
- B) texture
- C) particle size
- D) provenance

Answer: <https://biology-forums.com/index.php?topic=372720>

### Question 1225

What is a "main sequence star"?

- A) a star that is aligned with many other, similar colored stars
- B) a star that is in a group of stars with similar ages and sizes
- C) a star that is statistically indistinguishable from 90% of all stars
- D) a star that shows the same trend in distance from earth and temperature as many other stars

E) a star that falls in a band in a band on the H-R Diagram with most other stars

Answer: <https://biology-forums.com/index.php?topic=374560>

### Question 1226

Bowl-shaped depressions in bedrock at upstream ends of alpine glacial valleys are called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373214>

### Question 1227

The earth's major layers formed because \_\_\_\_\_.

- A) radioactive decay caused materials to change over time and resulted in the layering
- B) the earth's mantle grew like a crystal forming around the earth's core but the crust was exposed to space and stayed more like the original material
- C) the earth was heated after its formation resulting in melting and redistribution of major chemical compositions
- D) the chemical composition of the solar nebula changed over time

Answer: <https://biology-forums.com/index.php?topic=373344>

### Question 1228

The term \_\_\_\_\_ is used to describe the conversion of a solid directly to a gas, without passing through the liquid state.

- A) melting
- B) evaporation
- C) condensation
- D) sublimation

Answer: <https://biology-forums.com/index.php?topic=374009>

### Question 1229

mountain belt shield continental interior stable platform

Answer: <https://biology-forums.com/index.php?topic=372542>

### Question 1230

What is the important measure from weather radar that gives the intensity of the precipitation?

- A) time of the echo
- B) brightness of the echo
- C) height of the echo
- D) number of echoes from a single point
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=374072>

### Question 1231

A barrier built at a right angle to the beach for the purpose of trapping sand that is moving parallel to the shore is called a(n) \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373925>

### Question 1232

In an undeformed sequence of sedimentary rocks, each bed is older than the one above and younger than the one below. The preceding is a statement of the law of \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373584>

### Question 1233

In the figure, which of the deformations appears most similar to what might be expected along a divergent plate boundary?

- A) original
- B) X
- C) Y
- D) Z

Answer: <https://biology-forums.com/index.php?topic=373446>

### Question 1234

A region is characterized by numerous anticlines and synclines. There are also several faults present that appear to have formed at the same time as the folding. Without looking at any details, what type of faults would be most likely? Why?

Answer: <https://biology-forums.com/index.php?topic=373506>

### Question 1235

Which mechanism for heat transfer can operate in a vacuum?

- A) conduction
- B) convection
- C) contraction
- D) radiation

Answer: <https://biology-forums.com/index.php?topic=373970>

### Question 1236

Which of the following is not a common rock forming mineral?

- A) carbon
- B) potassium
- C) iron
- D) magnesium

Answer: <https://biology-forums.com/index.php?topic=372621>

### Question 1237

\_\_\_\_\_ was (were) never proposed as evidence supporting the existence of Pangaea.

- A) Late Paleozoic glacial features
- B) Similar fossils on different continents
- C) Islands of Precambrian rocks along the Mid-Atlantic Ridge
- D) Geometrical fit between South America and Africa

Answer: <https://biology-forums.com/index.php?topic=373235>

### Question 1238

The subarctic climate is often referred to as \_\_\_\_\_.

- A) tundra
- B) the polar express
- C) frozen land
- D) steppes
- E) the taiga climate

Answer: <https://biology-forums.com/index.php?topic=374264>

### Question 1239

The most common Precambrian rock type is \_\_\_\_\_ rock.

Answer: <https://biology-forums.com/index.php?topic=373685>

### Question 1240

When two continents converge, \_\_\_\_\_.

- A) a volcanic arc forms on the upper plate
- B) the heavier continent is subducted
- C) the lighter continent is subducted
- D) the sediments trapped between them are pushed up and deformed to make a mountain range

Answer: <https://biology-forums.com/index.php?topic=373260>

### Question 1241

The main source of the dissolved load in a stream is \_\_\_\_\_.

- A) cut bank soil
- B) material along the sides of the stream channel
- C) material along the bottom of the stream channel
- D) salt flats
- E) groundwater

Answer: <https://biology-forums.com/index.php?topic=373063>

### Question 1242

Mercury Saturn Uranus Jupiter

Answer: <https://biology-forums.com/index.php?topic=374448>

### Question 1243

Condensation nuclei, tiny particles of matter in the air, are important because \_\_\_\_\_.

- A) they provide a surface for water molecules to form on
- B) they provide point sources of heat in the air
- C) they increase the density of air and thus its buoyancy
- D) they will affect the environmental lapse rate

Answer: <https://biology-forums.com/index.php?topic=374043>

### Question 1244

The gently sloping submerged surface extending from the shoreline toward the deep ocean is termed the \_\_\_\_\_.

- A) continental rise
- B) continental shelf
- C) submarine canyon
- D) continental slope

Answer: <https://biology-forums.com/index.php?topic=373718>

### Question 1245

Productivity is highest in \_\_\_\_\_.

- A) tropical oceans
- B) polar oceans
- C) temperate oceans
- D) none of the above

Answer: <https://biology-forums.com/index.php?topic=373808>

### Question 1246

Why is it warmer in most of Europe than in northern California even though both are on the east side of an ocean and Europe is at higher latitude than California?

- A) The famous California surf stirs up the surface water, bringing deeper colder ocean water to the surface.
- B) California is affected by a cold offshore current, whereas Europe has the warm north Atlantic current, the continuation of the Gulf Stream.
- C) California weather is affected by the coastal mountains, which hold cold air along the west coast.
- D) Californians are just wimps; it really is warmer than Europe.

Answer: <https://biology-forums.com/index.php?topic=373843>

### Question 1247

Which of the following is a tabular intrusive body with subparallel intrusive contacts?

- A) columnar joints
- B) dike
- C) stock
- D) laccolith

Answer: <https://biology-forums.com/index.php?topic=373419>

### Question 1248

The most important agent(s) of metamorphism, according to your text, is (are) \_\_\_\_\_.

- A) heat
- B) confining pressure
- C) chemically active fluids
- D) differential stress

Answer: <https://biology-forums.com/index.php?topic=372745>

### Question 1249

After the drought of the 1930's farmers in the Great Plains were encouraged to plant rows of trees across fields to decrease soil erosion. How would this reduce soil erosion?

- A) The trees helped shade the ground, retaining moisture.
- B) Tree roots would retard runoff and prevent erosion.
- C) The trees can serve as windbreaks to slow wind erosion.
- D) The trees had no effect; they were just used to improve the land appearance after the great depression.

Answer: <https://biology-forums.com/index.php?topic=372929>

### Question 1250

A compound is a stable chemical substance composed of two or more \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=372682>

### Question 1251

Material that was once considered to be asthenosphere can change to lithosphere by \_\_\_\_\_.

- A) rising to a shallow level
- B) heating so that it will flow
- C) cooling so that it will break
- D) thickening to 100 km

Answer: <https://biology-forums.com/index.php?topic=373255>

### Question 1252

The Atlantic Ocean is saltier than the other oceans on Earth because \_\_\_\_\_.

- A) it is getting larger, and this increases the area where salt can flow into the ocean
- B) it has more rainfall and runoff and less evaporation than other oceans
- C) it spans all of the latitudes
- D) it has less rainfall and runoff and more evaporation than other oceans
- E) it is getting smaller and this decrease the surface area for salt to evaporate.

Answer: <https://biology-forums.com/index.php?topic=373785>

### Question 1253

New York and London are on two separate plates so the distance between the cities is \_\_\_\_\_.

- A) decreasing
- B) stationary
- C) increasing
- D) always changing direction

Answer: <https://biology-forums.com/index.php?topic=373249>

### Question 1254

A scarp is the exposed portion of the rupture surface beneath a slump block.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=373002>

### Question 1255

The major difference between a wet tropical region and a tropical wet and dry region is \_\_\_\_\_.

- A) temperature
- B) wind direction
- C) pressure
- D) elevation
- E) precipitation

Answer: <https://biology-forums.com/index.php?topic=374241>

### Question 1256

When the daily tidal range is LEAST, it is called a \_\_\_\_\_ tide.

- A) neap
- B) ebb
- C) spring
- D) none of these

Answer: <https://biology-forums.com/index.php?topic=373906>

### Question 1257

Continental shields and platforms represent \_\_\_\_\_.

- A) names given to Paleozoic mountain belts
- B) sites where continents collide, analogous to warriors clashing shields
- C) sedimentary basins with inland seas shaped like a shield, like Hudson's bay
- D) areas in the interior of continents that have not experienced mountain building for billions of years

Answer: <https://biology-forums.com/index.php?topic=372515>

### Question 1258

Which of the following is associated with areas of karst topography?

- A) soluble rock
- B) sinkholes
- C) caverns
- D) all of these

Answer: <https://biology-forums.com/index.php?topic=373115>

### Question 1259

Seasonal variations in CO<sub>2</sub> recorded at Mauna Loa Observatory are related to \_\_\_\_\_.

- A) temperature
- B) vegetation
- C) storms
- D) humidity
- E) winds

Answer: <https://biology-forums.com/index.php?topic=374275>

### Question 1260

What happens when fresh water flows into seawater?

- A) They mix completely.
- B) The sea water covers the fresh water.
- C) The fresh water covers the sea water.
- D) There is a continuous gradation from seawater on top to fresh water on the bottom.
- E) There is a continuous gradation from fresh water on top to sea water on the bottom.

Answer: <https://biology-forums.com/index.php?topic=373793>

### Question 1261

What is the difference between an active continental margin and a passive continental margin?

- A) A passive margin is passively carried along by plate tectonics in a transform system, like the San Andreas whereas an active margin is a trench.
- B) An active margin has earthquakes whereas a passive margin has quiet erupting (aka passive) volcanos.
- C) An active margin receives large amounts of sediment whereas a passive margin is sediment starved.
- D) A passive margin is the site of an ancient continental rift, left behind when seafloor spreading moved offshore, whereas an active margin is an active plate boundary.

Answer: <https://biology-forums.com/index.php?topic=373721>

### Question 1262

Discuss the distribution of seafloor sediments in the ocean basins. What are the different types of sediments, and what are the factors that control their distribution (geologic setting, climate, etc.)?

Answer: <https://biology-forums.com/index.php?topic=373775>

### Question 1263

Lightning is most prominent in \_\_\_\_\_.

- A) cumulonimbus clouds
- B) stratus clouds
- C) cumulus clouds
- D) altocumulus clouds

Answer: <https://biology-forums.com/index.php?topic=374198>

### Question 1264

What would have happened to the earth if the Sun were significantly larger than it is?

- A) Our Sun would have burned out after a few hundred million years so life would not evolve.
- B) Our atmosphere would consist mainly of nitrogen.
- C) Our atmosphere would consist mainly of carbon dioxide.
- D) Liquid water and the water cycle would not exist.

Answer: <https://biology-forums.com/index.php?topic=373603>

### Question 1265

Why do lunar scientists think the surface of the moon was once a magma ocean?

- A) The lunar highlands contain large amounts of the rock anorthosite, which is the light material that "floated" on the top of the magma ocean.
- B) Early lunar craters show a morphology suggesting impact with a liquid.
- C) The surface of the moon is entirely volcanic.
- D) None of these is correct.

Answer: <https://biology-forums.com/index.php?topic=374412>

### Question 1266

The apparent shift in the position of a nearby star when viewed from extreme points in Earth's orbit six months apart is called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374377>

### Question 1267

In the mid-1600s, James Ussher determined that the earth was created in 4004 BC based on \_\_\_\_\_.

- A) Biblical passages
- B) ancient records from the Egyptians
- C) rates of deposition and erosion of earth materials
- D) fossils
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=373511>

### Question 1268

Most of the Moon's craters were produced by \_\_\_\_\_.

- A) the impact of meteoroids
- B) radial implosions
- C) volcanic eruptions
- D) faulting

Answer: <https://biology-forums.com/index.php?topic=374406>

### Question 1269

Oceanic ridges represent \_\_\_\_\_ percent of the earth's surface.

- A) 20
- B) 10
- C) 30
- D) 5

Answer: <https://biology-forums.com/index.php?topic=373250>

### Question 1270

rift valley subduction volcanic island arc trench

Answer: <https://biology-forums.com/index.php?topic=373756>

### Question 1271

Why might a moon's orbit be used to evaluate if it was a primary moon, formed at the same time as the planet or a feature (asteroid or comet) that was captured by the planet's gravity?

Answer: <https://biology-forums.com/index.php?topic=374460>

### Question 1272

Which of the following plates is getting significantly smaller?

- A) Africa
- B) North America
- C) Pacific
- D) Eurasia

Answer: <https://biology-forums.com/index.php?topic=373270>

### Question 1273

Which of the following might not be considered a natural cause of climate change?

- A) explosive volcanic eruptions
- B) plate tectonics
- C) changes in atmospheric ozone
- D) variations in solar radiation

E) changes in the earth's orbit

Answer: <https://biology-forums.com/index.php?topic=374272>

### Question 1274

An element is defined by the number of electrons the orbit the nucleus.

A) [b]True[/b]

B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372657>

### Question 1275

The wet tropics are limited to areas \_\_\_\_\_.

A) where the temperature is always above 35°C

B) below 1000 meters of elevation

C) that have mountainous regions of forest

D) where the trade winds bring moisture

E) where the humidity averages more than 70%

Answer: <https://biology-forums.com/index.php?topic=374239>

### Question 1276

In what part of a subduction margin might you find rocks deposited on the abyssal plain, far from land?

A) Forearc Basin

B) Cratonic Basin

C) Accretionary Wedge

D) Volcanic Arc

Answer: <https://biology-forums.com/index.php?topic=373475>

### Question 1277

As a stream changes from its headwaters to its mouth, which of the following is not likely to occur?

A) The channel gets smoother.

B) Sediment size gets smaller downstream.

C) The channel gets wider downstream.

D) The volume of water increases.

E) Flow velocity decreases.

Answer: <https://biology-forums.com/index.php?topic=373059>

### Question 1278

Glacial ice sheets are the largest glaciers and they currently cover \_\_\_\_\_.

A) The Arctic Sea, the Alps, Greenland, Antarctica, and Alaska

B) Greenland and Antarctica

C) only Antarctica

D) Alaska, Antarctica, and Greenland

E) Antarctica, Greenland, Alaska, the Andes Mountains, the Arctic Sea, and the Alps

Answer: <https://biology-forums.com/index.php?topic=373166>

### Question 1279

Rip currents are dreaded by surf swimmers everywhere. The standard recommendation for swimmers is if you get caught in a rip current, swim parallel to the shore. Why?

A) It will carry you in the longshore current which will take you ashore.

B) This recommendation is wrong; you should swim with the current and wait for it to die away, then swim to shore because the currents dissipate quickly.

C) The current is moving offshore but is confined, so by swimming parallel to shore you can swim out of the current.

D) This recommendation is wrong; you should swim toward the shore as fast as you can.

Answer: <https://biology-forums.com/index.php?topic=373868>

### Question 1280

Any accreted crustal fragment that has a geologic history distinct from that of the adjoining fragments is termed a(n) \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373501>

### Question 1281

Most of an iceberg is under water because \_\_\_\_\_.

- A) the mass of an iceberg is concentrated in the zone of accumulation
- B) seawater is more dense than ice
- C) ice is more dense than seawater
- D) the mass of an iceberg is concentrated in the zone of wastage

Answer: <https://biology-forums.com/index.php?topic=373176>

### Question 1282

\_\_\_\_\_ involves movement on a zone of compressed air.

- A) A slump
- B) Soil creep
- C) A rock avalanche
- D) A mudflow

Answer: <https://biology-forums.com/index.php?topic=372954>

### Question 1283

Which of the following is not considered pyroclastic debris?

- A) ash
- B) pahoehoe
- C) bombs
- D) cinders

Answer: <https://biology-forums.com/index.php?topic=373387>

### Question 1284

Which of the following is not a significant factor triggering mass wasting events?

- A) mine tailings filling a valley
- B) forest fire
- C) earthquake
- D) heavy rainfall

Answer: <https://biology-forums.com/index.php?topic=372937>

### Question 1285

Which one of the following operates primarily in areas of permafrost?

- A) mudflow
- B) soil creep
- C) rock avalanche
- D) solifluction

Answer: <https://biology-forums.com/index.php?topic=372961>

### Question 1286

A super cooled liquid needs to \_\_\_\_\_ to turn into a solid.

- A) sublimate
- B) coalesce with other liquids
- C) lose volume
- D) collide with an object
- E) increase volume

Answer: <https://biology-forums.com/index.php?topic=374063>

### Question 1287

A very slow motion of Earth's axis that requires 26,000 years to complete is called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374391>

### Question 1288

The unsaturated zone above the water table is also known as the \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373135>

### Question 1289

Wegener's work is a good demonstration of the scientific method because \_\_\_\_\_.

- A) his hypothesis passed all of the scientific testing to become a theory

- B) his hypothesis did not pass all of the scientific tests to become a theory  
C) he was wrong, and as a result, no one believed him  
D) he was right, but no one believed him

Answer: <https://biology-forums.com/index.php?topic=373237>

### Question 1290

The Tibetan plateau is high above sea level because \_\_\_\_\_.

- A) there are many active faults across Tibet that produce internal crustal thickening and uplift  
B) a giant fault beneath Tibet raises it up relative to adjacent areas  
C) the extrusion of East Asia has produced structures that thicken the crust under Tibet, producing regional uplift  
D) crustal thickening over millions of years has produced a thick crust that stands high due to Isostasy

Answer: <https://biology-forums.com/index.php?topic=373488>

### Question 1291

Lava always erupts violently, but magma often flows quietly.

- A) [b]True[/b]  
B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372851>

### Question 1292

wave-cut cliff wave-cut platform sea arch spit

Answer: <https://biology-forums.com/index.php?topic=373910>

### Question 1293

In the Southern Hemisphere, the winds associated with a low pressure system blow \_\_\_\_\_.

- A) counterclockwise and toward the center  
B) clockwise and outward from the center  
C) counterclockwise and outward from the center  
D) clockwise and toward the center

Answer: <https://biology-forums.com/index.php?topic=374115>

### Question 1294

In the television series "Cosmos" the astronomer Carl Sagan used to say, "We are all made of star stuff." What did he mean by that?

- A) All of the chemical elements in our solar system were forged in an ancient star that went supernova.  
B) The earth has incorporated large amounts of chemical material from the solar wind, so our bodies carry this material.  
C) All of the chemical elements were formed during the big bang when the universe began, so we are like the stars.  
D) We all have to potential to be stars.

Answer: <https://biology-forums.com/index.php?topic=372495>

### Question 1295

The term used to describe clouds that consist of globular masses that take on a billowy form is \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374085>

### Question 1296

General circulation models are based on the fundamental laws of physics and chemistry, and they are designed to \_\_\_\_\_.

- A) model climate behavior over decades  
B) determine whether places are going to experience bad hurricane seasons or droughts during the next year  
C) mimic the history of weather on earth for the last ice age  
D) measure urban heat islands and identify where changes need to be made in a community  
E) predict the weather over periods of weeks and months

Answer: <https://biology-forums.com/index.php?topic=374280>

### Question 1297

Productivity is the amount of carbon fixed by organisms through the synthesis of organic matter using energy derived from \_\_\_\_\_ and \_\_\_\_\_.

- A) hydrothermal, available nutrients  
B) photosynthesis, hydrothermal  
C) chemosynthesis, hydrothermal  
D) chemosynthesis, photosynthesis  
E) none of these

Answer: <https://biology-forums.com/index.php?topic=373809>

### Question 1298

Chalk forms from \_\_\_\_\_.

- A) evaporation of magnesium rich waters
- B) the hard parts of microscopic organisms that accumulate on the sea floor
- C) magnesium rich fluids that chemically alter limestone bearing reefs
- D) direct precipitation from seawater

Answer: <https://biology-forums.com/index.php?topic=372727>

### Question 1299

Wegener thought that \_\_\_\_\_.

- A) there was once one big continent that was later separated by the Atlantic Ocean
- B) there were once several continents that recombined to form the continents we have today
- C) there were once two big continents that were separated later by the Atlantic Ocean
- D) there was once one big continent that later broke into several pieces

Answer: <https://biology-forums.com/index.php?topic=373232>

### Question 1300

Ocean spreading centers are highlands on the ocean floor, sometimes referred to as submarine mountains. Oceanic crust worldwide is about the same thickness so isostasy would suggest the ocean floor should be as flat as Kansas. Which of the following statements best describes the origin of these submarine mountains?

- A) The ridges represent upwelling zones from the core which produces a bulge at the earth's surface.
- B) The mantle beneath the ridges remains hot for millions of years producing an elevated region along the ridge axis because hot rocks are lower density than cold rocks.
- C) Compression at the ridges produce local uplift along the ridge axis.
- D) The ridges are sites of young volcanos that produce high topography on the sea floor, like Hawaii.

Answer: <https://biology-forums.com/index.php?topic=373493>

### Question 1301

Which of the following is not a mechanism for heat transfer?

- A) convection
- B) radiation
- C) conduction
- D) contraction
- E) They are all mechanisms for heat transfer.

Answer: <https://biology-forums.com/index.php?topic=373966>

### Question 1302

What stream characteristic is measured by the size of the largest particle that a stream can move?

Answer: <https://biology-forums.com/index.php?topic=373129>

### Question 1303

Where are Polar Climates most well developed?

- A) Antarctica and Greenland
- B) Alaska and Greenland
- C) Antarctica and Alaska
- D) Iceland and Alaska
- E) Iceland and Antarctica

Answer: <https://biology-forums.com/index.php?topic=374269>

### Question 1304

A \_\_\_\_\_ forms when a block of ice is buried in drift and subsequently melts, creating a pit.

- A) kettle
- B) tarn
- C) kame
- D) paternoster

Answer: <https://biology-forums.com/index.php?topic=373185>

### Question 1305

The planets are "wanderers" in the night sky because they move relative to the stars. However, their movement is limited to the plane of the solar system, which is disk shaped. So relative to the celestial coordinate system, how do the planets actually move across the sky?

- A) The move perpendicular to the celestial equator.
- B) They move along the celestial equator.
- C) The move along the zodiac.
- D) They follow wobbling paths related to the precession of equinoxes.

Answer: <https://biology-forums.com/index.php?topic=374348>

### Question 1306

Earthquake prediction is \_\_\_\_\_.

- A) somewhat good for very long term statistical analyses based on ideas like mapping seismic gaps
- B) not possible
- C) generally good if you live in an area along a plate boundary because we know how fast the plates are moving and can measure the stress accumulation
- D) possible for short times before some earthquakes based on things like animal behavior, but the U.S. does not make use of this method.

Answer: <https://biology-forums.com/index.php?topic=373337>

### Question 1307

\_\_\_\_\_ is the major gas in the atmosphere of Venus.

Answer: <https://biology-forums.com/index.php?topic=374455>

### Question 1308

The first stars formed about 300 million years after Big Bang in the most massive nebulae because \_\_\_\_\_.

- A) only the massive nebulae had the material needed to make stars
- B) it took that long for enough matter to form to make a star
- C) the massive nebulae had enough gravity to collapse and condense
- D) the massive nebulae had enough gravity to attract star material early in the history of the universe
- E) all of the nebulae at that time were massive and it was not until much later that smaller nebulae formed

Answer: <https://biology-forums.com/index.php?topic=374565>

### Question 1309

\_\_\_\_\_ tend to increase the explosive potential of a magma body beneath a volcano.

- A) Low silica content and low viscosity
- B) High viscosity and dissolved gas
- C) High viscosity and low dissolved gas content
- D) Low viscosity and low dissolved gas content

Answer: <https://biology-forums.com/index.php?topic=373373>

### Question 1310

The apparent path of the Sun upon the celestial sphere is called the \_\_\_\_\_.

- A) declination
- B) ecliptic
- C) parallax
- D) sidereal
- E) precession

Answer: <https://biology-forums.com/index.php?topic=374357>

### Question 1311

equatorial low trade winds polar front subtropical high

Answer: <https://biology-forums.com/index.php?topic=374147>

### Question 1312

What theory dramatically improved geologist's ability to predict where certain ore deposits were formed?

- A) quantum mechanics
- B) plate tectonics
- C) faulting theory
- D) geosynclines

Answer: <https://biology-forums.com/index.php?topic=372642>

### Question 1313

Which one of the following statements best describes erosion?

- A) the combined processes of leaching, eluviation, and mass wasting
- B) the process by which weathered rock and mineral particles are removed from one area and transported elsewhere
- C) disintegration and decomposition of rocks and minerals at the surface
- D) movement of weathered rock and regolith toward the base of a slope

Answer: <https://biology-forums.com/index.php?topic=372890>

### Question 1314

African dust from the Sahara desert is observed across the Atlantic as far west as the Caribbean region where it produces a hazy sky condition during the annual dry season. You are a climate scientist and make a prediction that the Sahara was not a desert during glacial periods in the northern hemisphere. How could you test this hypothesis by looking at deep sea sediments from the Atlantic off west Africa?

- A) You would look at fossils to see if there were organisms that preferred dusty conditions vs. clear water conditions.
- B) You could measure the isotopes in the sediment to estimate the sea surface temperatures.
- C) You could look at the sediments to see if there were biogenic sediments interbedded with sediments with terrigenous input corresponding to the dry, interglacial intervals.
- D) The hypothesis is untestable with deep sea sediment.

Answer: <https://biology-forums.com/index.php?topic=373748>

### Question 1315

Rayed craters like Tyco and Copernicus are known to be younger than the lunar maria because \_\_\_\_\_.

- A) they contain volcanos in their centers which indicate the moon still had magma available when they formed
- B) they have been dated directly by radiometric dating of samples
- C) they are formed on lunar highlands that are known to be younger than the maria
- D) their ejecta, seen as rays, lies across the surface of the maria

Answer: <https://biology-forums.com/index.php?topic=374409>

### Question 1316

The layer of the Sun that radiates most of the light that reaches Earth is called the \_\_\_\_\_.

- A) ionosphere
- B) megasphere
- C) photosphere
- D) chromosphere
- E) corona

Answer: <https://biology-forums.com/index.php?topic=374497>

### Question 1317

The earth is estimated to be approximately 4.6 billion years old. Life appeared early in the history of Earth, but metazoans (multicelled organisms) did not appear until about 600 million years ago. If the history of Earth were compressed into a single year, when would metazoans appear?

- A) late September
- B) mid-December
- C) late January
- D) late November

Answer: <https://biology-forums.com/index.php?topic=372486>

### Question 1318

During the earliest history of the earth, \_\_\_\_\_.

- A) the earth did not have any radioactive material
- B) almost all of the material was radioactive, and it decayed to the compositions we have today.
- C) the temperature increased so that iron and nickel melted
- D) the earth was cold and lacked any source of heat.

Answer: <https://biology-forums.com/index.php?topic=373342>

### Question 1319

A natural, meandering, river channel is modified into a more or less straight and smooth, canal-like channel. Which of the following statements is correct?

- A) The natural channel had a lower gradient and higher friction than the straight channel.
- B) The natural channel had a lower gradient and less friction than the modified channel.

C) The straight channel has a higher gradient and more friction than the natural channel.

D) All of the above statements are true.

Answer: <https://biology-forums.com/index.php?topic=373081>

### Question 1320

A sea breeze usually originates during the \_\_\_\_\_.

A) evening and flows toward the water

B) day and flows toward the water

C) evening and flows toward the land

D) day and flows toward the land

Answer: <https://biology-forums.com/index.php?topic=374135>

### Question 1321

The surface wind zones that flow from the subtropics toward the equator are called the \_\_\_\_\_ winds.

Answer: <https://biology-forums.com/index.php?topic=374159>

### Question 1322

The first elements to form after "Big Bang" were \_\_\_\_\_.

A) oxygen and hydrogen

B) helium and hydrogen

C) hydrogen and iron

D) oxygen and iron

E) helium and oxygen

Answer: <https://biology-forums.com/index.php?topic=373606>

### Question 1323

Atoms that have an electrical charge due to a gain or loss of electrons are called \_\_\_\_\_.

A) periodic elements

B) ions

C) isochrons

D) isotopes

Answer: <https://biology-forums.com/index.php?topic=372603>

### Question 1324

Which of the following is not an advantage that radio telescopes have over optical telescopes?

A) They can "see" through interstellar dust clouds.

B) They can operate 24 hours a day.

C) They are generally less expensive.

D) They are less affected by the conditions of the atmosphere.

E) They have better resolution.

Answer: <https://biology-forums.com/index.php?topic=374490>

### Question 1325

\_\_\_\_\_ are the dominant land plants of the Cenozoic era.

Answer: <https://biology-forums.com/index.php?topic=373698>

### Question 1326

When prevailing winds blow from onshore to offshore, what generally happens?

A) The winds cause offshore surface water to flow away from shore, forcing deeper water to rise to the surface.

B) The wind drives a longshore current, which draws cold air from higher latitudes, producing a cold climate.

C) The wind drives the water away from shore, forcing the water to descend in a downwelling zone.

D) The dry conditions from the land evaporate surface waters, making them more dense due to salinity increase, and they sink.

Answer: <https://biology-forums.com/index.php?topic=373846>

### Question 1327

\_\_\_\_\_ climates are those in which the average temperature of the coldest month is below  $-3^{\circ}\text{C}$  and the warmest monthly mean exceeds  $10^{\circ}\text{C}$ .

Answer: <https://biology-forums.com/index.php?topic=374299>

### Question 1328

Mountain building in the western margin of North America records a history of both \_\_\_\_\_.

- A) Andean type subduction and continental collision
- B) Andean type subduction and terrane accretion
- C) continental collision and terrane accretion
- D) none of the above

Answer: <https://biology-forums.com/index.php?topic=373486>

### Question 1329

Magma differentiation tends to produce deposits of \_\_\_\_\_ near the base of intrusions.

- A) gold
- B) copper
- C) silver
- D) chromite

Answer: <https://biology-forums.com/index.php?topic=372836>

### Question 1330

The dissolved materials in seawater are thought to originate from chemical weathering of rocks on the continents and also from \_\_\_\_\_.

- A) erosion
- B) meteorites
- C) outgassing of elements from Earth's interior
- D) evaporation of fresh water
- E) organisms

Answer: <https://biology-forums.com/index.php?topic=373780>

### Question 1331

What term denotes a sand bar built across the former mouth of an estuary, separating it from the open sea?

Answer: <https://biology-forums.com/index.php?topic=373923>

### Question 1332

Considering the theory of plate tectonics and the movement of landmasses over geologic time, would you expect atmospheric circulation of the past to be the same as we see today? Why or why not? Consider the factors that determine global wind patterns and whether they have changed over time.

Answer: <https://biology-forums.com/index.php?topic=374165>

### Question 1333

Basaltic rocks make up most of the sea floor.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372854>

### Question 1334

Why is the Santa Ana wind a danger signal in southern California?

- A) It drives people crazy with the howling winds, so crime goes up.
- B) It is a warm, dry wind that can quickly dry out brushlands and spread fires.
- C) It is a cold, dry winter wind that brings danger of hypothermia to people like the homeless living on the streets.
- D) It is a warm, humid wind from Mexico that signals El Niño conditions and high potential for flooding.

Answer: <https://biology-forums.com/index.php?topic=374137>

### Question 1335

The continental rise is located \_\_\_\_\_.

- A) at the top of the continental slope
- B) between an abyssal plain and continental slope
- C) at the top of a mid-ocean ridge
- D) at the seaward edge of a deep ocean trench

Answer: <https://biology-forums.com/index.php?topic=373720>

### Question 1336

Which one of the following are the three most abundant gases in the dry atmosphere?

- A) oxygen, argon, carbon dioxide
- B) carbon dioxide, nitrogen, oxygen

C) argon, carbon dioxide, nitrogen

D) nitrogen, oxygen, argon

Answer: <https://biology-forums.com/index.php?topic=373934>

### Question 1337

Polar climates get most of their precipitation in the \_\_\_\_\_.

A) winter

B) fall

C) summer

D) spring

E) It is uniform throughout the year.

Answer: <https://biology-forums.com/index.php?topic=374267>

### Question 1338

For a radioactive isotope like Uranium-235, what does the 235 indicate?

Answer: <https://biology-forums.com/index.php?topic=373590>

### Question 1339

The low latitude dry regions coincide with \_\_\_\_\_.

A) the subtropical high pressure belts

B) the gulf stream

C) the polar low pressure belt

D) the subtropical low pressure belts

E) the polar high pressure belt

Answer: <https://biology-forums.com/index.php?topic=374250>

### Question 1340

In a dry climate, weathering is significantly less than in a humid climate because \_\_\_\_\_.

A) rivers are ephemeral and do not cause weathering in the desert

B) sand covers much of the rock surface and protects them from weathering in a desert

C) wind is not a significant weathering agent

D) there is a shortage of moisture and organic acids

Answer: <https://biology-forums.com/index.php?topic=373196>

### Question 1341

In the interior of continents the earth's crust is typically about 40km thick and the elevation is near sea level. Most earth materials expand when heated, lowering their density. During rifting continental margins are heated but cool as sea floor spreading moves offshore from the continent. Thus, basic isostasy suggests that after rifting, a continental margin will \_\_\_\_\_.

A) rise slowly as erosion removes uplifted rocks

B) remain near sea level

C) subside

D) uplift

Answer: <https://biology-forums.com/index.php?topic=373492>

### Question 1342

What is the greatest danger from earthflow?

A) loss of property along the path of the earthflow

B) loss of life by rapid downslope movement of the earthflow

C) loss of water quality by mud flowing into river drainages, polluting the water

D) deforestation along the earthflow path

Answer: <https://biology-forums.com/index.php?topic=372949>

### Question 1343

The \_\_\_\_\_ zone refers to areas of the ocean, regardless of depth, where animals swim or float freely.

Answer: <https://biology-forums.com/index.php?topic=373836>

### Question 1344

Probably the single most characteristic feature of sedimentary rocks is \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=372882>

### Question 1345

When a hurricane moves onto land, it rapidly loses its punch; that is, the storm declines in intensity. Which of the factors listed below contribute to this loss of punch?

- A) heating from below by the land surface
- B) disruption of outflow by strong winds aloft from the jet stream
- C) formations of mesocyclones within the storm disrupt the circulation
- D) lack of warm, moist air to feed latent heat driven convection

Answer: <https://biology-forums.com/index.php?topic=374206>

### Question 1346

Liquification, where normally solid material behaves more like a fluid during an earthquake, occurs because \_\_\_\_\_.

- A) cracking in the rocks allows fluids to flow into the area and increase the amount of liquids in the subsurface
- B) rock particles dissolve and mix with the fluids in the subsurface to become a liquid
- C) pore spaces between particles in unconsolidated sediments close and displace fluids
- D) friction from the vibrations melt rock and produce magmas

Answer: <https://biology-forums.com/index.php?topic=373333>

### Question 1347

Paricutin is an example of a \_\_\_\_\_.

- A) cinder cone
- B) shield volcano
- C) composite volcano
- D) lava dome

Answer: <https://biology-forums.com/index.php?topic=373400>

### Question 1348

The \_\_\_\_\_ is the solid, rocky shell between the crust and outer core.

Answer: <https://biology-forums.com/index.php?topic=372577>

### Question 1349

The only planet in the solar system whose axis of rotation lies close to its equatorial plane is \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374458>

### Question 1350

Hale discovered that sunspots were associated with magnetic fields. What happens to these magnetic fields during a full sunspot cycle?

- A) They change polarity.
- B) They die away.
- C) They get weaker.
- D) They get stronger.

Answer: <https://biology-forums.com/index.php?topic=374515>

### Question 1351

The columns of the periodic table divide atoms by their \_\_\_\_\_.

- A) atomic mass
- B) number of neutrons
- C) number of valence electrons
- D) number of protons

Answer: <https://biology-forums.com/index.php?topic=372597>

### Question 1352

Most stream valleys have a V shaped cross section because \_\_\_\_\_.

- A) water washing down the slope makes straight channels.
- B) mass wasting of weathered rocks on the slope maintain an angle of repose slope.
- C) vegetation on the slopes forces this profile.
- D) none of the above

Answer: <https://biology-forums.com/index.php?topic=372935>

### Question 1353

Density is an important property of ocean water because \_\_\_\_\_.

- A) it determines the horizontal position of the water
- B) it only changes when there is a major change in water chemistry
- C) it determines the vertical position of the water
- D) it determines the temperature of the water
- E) it determines the chemistry of the water

Answer: <https://biology-forums.com/index.php?topic=373792>

### Question 1354

The \_\_\_\_\_ climate is located on the eastern sides of continents, in the 25- to 40-degree latitude range.

- A) humid subtropical
- B) dry-summer subtropical
- C) humid continental
- D) marine west coast
- E) Mediterranean

Answer: <https://biology-forums.com/index.php?topic=374265>

### Question 1355

What term describes open fissures in the brittle surface ice of a glacier?

Answer: <https://biology-forums.com/index.php?topic=373213>

### Question 1356

An important tool in understanding the actual numerical dates of past geologic events is \_\_\_\_\_.

- A) cross-cutting relationships
- B) radioactivity
- C) depositional rates
- D) fossils
- E) unconformities

Answer: <https://biology-forums.com/index.php?topic=373518>

### Question 1357

Heavy elements like Pb (lead) and U (Uranium) were generated \_\_\_\_\_.

- A) during collapse of a star and subsequent nuclear synthesis in a supernova
- B) during the big bang when the universe was formed
- C) by humans in nuclear reactors
- D) by the Sun and expelled to the solar system via the solar wind

Answer: <https://biology-forums.com/index.php?topic=372594>

### Question 1358

Which of the following is determined by making direct observations in the area affected by an earthquake?

- A) focus or hypocenter
- B) magnitude
- C) epicenter
- D) intensity

Answer: <https://biology-forums.com/index.php?topic=373321>

### Question 1359

The mass wasting process in steep mountain areas that causes accumulations of rock debris called talus is called \_\_\_\_\_.

- A) a slump
- B) a rock avalanche
- C) a rock fall
- D) a rock slide

Answer: <https://biology-forums.com/index.php?topic=372946>

### Question 1360

The fraction of the total radiation encountered that is reflected by a surface is called its \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373999>

### Question 1361

An unconformity in which the strata on either side are essentially parallel is termed a(n) \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373585>

### Question 1362

A wintertime form of precipitation that consists of small ice particles is called \_\_\_\_\_.

- A) hail
- B) glaze
- C) rime
- D) sleet

Answer: <https://biology-forums.com/index.php?topic=374069>

### Question 1363

Shorelines are temporary geologic and topographic features. Explain this statement.

Answer: <https://biology-forums.com/index.php?topic=373927>

### Question 1364

Most of our table salt comes from \_\_\_\_\_.

- A) salt obtained by evaporating seawater in dry climates
- B) combining the metal sodium and the nonmetal chlorine gas in a chemical reaction vessel to make pure NaCl
- C) China
- D) salt taken from mines

Answer: <https://biology-forums.com/index.php?topic=373749>

### Question 1365

Much of the Gulf of Mexico is underlain by large thicknesses of salt that formed in a small ocean basin like the red sea, as the north Atlantic spreading began in Mesozoic time. This salt is a good example of \_\_\_\_\_.

- A) both terrigenous and biogenous sediment
- B) hydrogenous sediment
- C) terrigenous sediment
- D) biogenous sediment

Answer: <https://biology-forums.com/index.php?topic=373745>

### Question 1366

Earth's low-latitude deserts and steppes coincide with the \_\_\_\_\_ pressure belts.

Answer: <https://biology-forums.com/index.php?topic=374305>

### Question 1367

The north end of Earth's axis is tilted 23.5 degrees toward the Sun on \_\_\_\_\_.

- A) June 21 or 22
- B) December 21 or 22
- C) September 22 or 23
- D) March 21 or 22
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=373960>

### Question 1368

Midwestern farmers used to say "mare's tail and mackerel scales bring the storm down on you head"; Mare's tails are cirrus clouds and mackerel scales are cirrostratus. When this sequence is followed by altostratus the old farmers were talking about an approaching \_\_\_\_\_ front.

- A) warm
- B) cold
- C) warm or cold
- D) none of these

Answer: <https://biology-forums.com/index.php?topic=374179>

### Question 1369

What is the major distinction between internal and external Earth processes?

- A) Internal processes involve heat, and external processes involve oxygen.
- B) Internal and external processes can occur inside and outside the Earth, but external processes must also include the oxidation of Earth materials.
- C) Internal processes can only occur inside the Earth, but external processes can occur inside or outside the Earth.

D) Internal processes are driven by things like Plate Tectonics, and external processes are driven by the sun.

Answer: <https://biology-forums.com/index.php?topic=372888>

### Question 1370

massive, gently sloping volcanoes built of successive, basaltic lava flows

Answer: <https://biology-forums.com/index.php?topic=373435>

### Question 1371

Which of the following must result in a lower base level for rivers and streams?

- A) sea level falls; land rises
- B) sea level rises; land rises
- C) sea level drops; land subsides
- D) sea level rises; land subsides

Answer: <https://biology-forums.com/index.php?topic=373089>

### Question 1372

Which statement about the May, 1980, eruption of Mount St. Helens is false?

- A) The most powerful explosive event was preceded by a massive landslide.
- B) Plumes of ash rose high into the atmosphere during the major eruptive events.
- C) Mudflows accompanied the major eruptive events.
- D) During the eruptive period, the mountain peak was substantially built up by new lava flows and pyroclastic debris.

Answer: <https://biology-forums.com/index.php?topic=373369>

### Question 1373

What moon in the outer solar system is most "earthlike" in terms of landforms, and possesses liquids (liquid methane not water) flowing across the surface?

- A) Europa
- B) Titan
- C) Tethys
- D) Ganymede

Answer: <https://biology-forums.com/index.php?topic=374432>

### Question 1374

Which slender, conical speleothem grows from water dripping from the ceiling of a cavern?

Answer: <https://biology-forums.com/index.php?topic=373138>

### Question 1375

The Mississippi River has an average discharge of 17,300 cubic meters per second but the \_\_\_\_\_ River discharges 12 times more water than the Mississippi River.

- A) Nile
- B) Amazon
- C) Yukon
- D) Colorado
- E) Yangtze

Answer: <https://biology-forums.com/index.php?topic=373058>

### Question 1376

declination right ascension perihelion equatorial system

Answer: <https://biology-forums.com/index.php?topic=374371>

### Question 1377

The average salinity of seawater is \_\_\_\_\_.

- A) 30.0%
- B) 19.8%
- C) 3.5%
- D) 0.01%
- E) 0.27%

Answer: <https://biology-forums.com/index.php?topic=373776>

### Question 1378

The upper part of the \_\_\_\_\_ has the approximate composition of granite.

Answer: <https://biology-forums.com/index.php?topic=373357>

### Question 1379

Light elements like hydrogen and helium form a large percentage of the outer planets and Sun is made up primarily of hydrogen. Why are these elements nearly absent from the inner planets?

- A) The Sun captured all of the hydrogen during its formation.
- B) It is a mystery that has never been solved by science.
- C) These light elements are blown away from the inner planets by the solar wind.
- D) Hydrogen and helium have all been bound up by chemical reactions on the inner planets and are held in rock.

Answer: <https://biology-forums.com/index.php?topic=372498>

### Question 1380

The first modern astronomer to propose a Sun-centered universe was \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374378>

### Question 1381

The particles in breccia are primarily silt sized.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372864>

### Question 1382

Solar rays will strike the Tropic of Capricorn at an angle of 90 degrees on \_\_\_\_\_.

- A) September 21
- B) December 21
- C) June 21
- D) March 21

Answer: <https://biology-forums.com/index.php?topic=373954>

### Question 1383

Cleavage is related to the internal structure of a mineral.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372672>

### Question 1384

Atoms that share electrons have a(n) \_\_\_\_\_ bond.

- A) metallic
- B) covalent
- C) partial
- D) ionic

Answer: <https://biology-forums.com/index.php?topic=372598>

### Question 1385

This scientist determined the nature of the forces that kept the planets in their orbits.

- A) Nicolaus Copernicus
- B) Tycho Brahe
- C) Galileo
- D) Sir Isaac Newton

Answer: <https://biology-forums.com/index.php?topic=374334>

### Question 1386

Which of the following major discoveries was not made near or after World War II?

- A) the extensive ranges of mountain chains on the sea floor
- B) the absence of rocks older than 200 million years on the sea floor
- C) rift valleys in Africa

D) deep focus earthquakes that occur in some regions of the earth

Answer: <https://biology-forums.com/index.php?topic=373239>

### Question 1387

Which of the following places is well known for its intrusive igneous rocks that were exposed by erosion?

- A) Yosemite National Park
- B) Yellowstone National Park
- C) Hawaii
- D) Mount St. Helens Volcano

Answer: <https://biology-forums.com/index.php?topic=372697>

### Question 1388

Modern seismographs rely on \_\_\_\_\_ to record the ground motion from an earthquake.

- A) buoyancy
- B) inertia
- C) density
- D) mass

Answer: <https://biology-forums.com/index.php?topic=373312>

### Question 1389

tropical storm tropical depression hurricane tornado

Answer: <https://biology-forums.com/index.php?topic=374216>

### Question 1390

Which main-sequence stars are the least massive?

- A) yellow
- B) blue
- C) red
- D) orange

Answer: <https://biology-forums.com/index.php?topic=374555>

### Question 1391

Pyroclastic flows move \_\_\_\_\_.

- A) as a dense cloud that contains hot magma particles suspended in hot gases and moves rapidly downhill
- B) as gravity flows similar to snow avalanches
- C) very rapidly, too fast to outrun on foot
- D) all of the above
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=373410>

### Question 1392

When an area is experiencing several consecutive days of rather constant weather, it is probably \_\_\_\_\_.

- A) cold-front weather
- B) occluded front weather
- C) warm-front weather
- D) air-mass weather

Answer: <https://biology-forums.com/index.php?topic=374166>

### Question 1393

A(n) \_\_\_\_\_ represents a former meltwater channel or tunnel in glacial ice that was filled with sand and gravel.

- A) kettle
- B) valley plain
- C) esker
- D) yazoo ridge

Answer: <https://biology-forums.com/index.php?topic=373184>

### Question 1394

A major obstacle the first land plants had to overcome was \_\_\_\_\_.

- A) eliminating waste materials in the atmosphere

- B) staying upright despite gravity and wind on land
- C) finding food on land where there were no organic compounds
- D) the large number of plant eating organisms on land
- E) their lack of mobility because they needed water access

Answer: <https://biology-forums.com/index.php?topic=373658>

### Question 1395

Based on the examples and discussion in Chapter 4, what is the relationship of climate to weathering, both chemical and mechanical? Also, are certain climates more susceptible to certain types of weathering? Why or why not?

Answer: <https://biology-forums.com/index.php?topic=373039>

### Question 1396

The mercurial barometer was invented by \_\_\_\_\_.

- A) Newton
- B) Galileo
- C) Torricelli
- D) Watt

Answer: <https://biology-forums.com/index.php?topic=374098>

### Question 1397

Explain why sedimentary rocks are particularly important in studying the past history of the Earth.

Answer: <https://biology-forums.com/index.php?topic=372887>

### Question 1398

The area labeled C shows an active fault bounding the range. Which best describes the motion on the fault?

- A) north side down
- B) right lateral strike-slip
- C) south side down
- D) east side up
- E) west side up

Answer: <https://biology-forums.com/index.php?topic=373464>

### Question 1399

In the late 1950's the Hebgen Lake earthquake outside of Yellowstone triggered a mass wasting event. The landslide originated on steep mountains slopes where rocks slid off a surface and descended to the valley floor in a few seconds, burying a campground and many people staying there. This type of landslide would be called \_\_\_\_\_.

- A) a slump
- B) a rockslide
- C) a mudflow
- D) an earthflow

Answer: <https://biology-forums.com/index.php?topic=372948>

### Question 1400

The Oort cloud is \_\_\_\_\_.

- A) the asteroid belt
- B) the outer solar system where planetesimals, rocky debris and comets orbit outside beyond the outer planets but cross into the inner solar system at times
- C) an unusual type of cloud formed when meteorites strike the earth
- D) another name for the inner solar system, just before the Sun became hot enough for nuclear fusion

Answer: <https://biology-forums.com/index.php?topic=372500>

### Question 1401

When water vapor condenses to form clouds, \_\_\_\_\_.

- A) the air gets warmer
- B) the air gets colder
- C) the air temperature stays the same
- D) the air temperature can change in either direction depending on other conditions

Answer: <https://biology-forums.com/index.php?topic=374008>

### Question 1402

What is the difference between a gas and a liquid?

- A) A liquid is composed of individual atoms that have no bonds, while a gas is made up of molecules with bonds between atoms.
- B) A liquid is "wet," meaning it will attach to things, while a gas does not do this.
- C) A gas has a fixed volume but a liquid does not.
- D) A gas is composed of individual atoms that have no bonds, while a liquid is made up of molecules with bonds between atoms.
- E) A liquid has a fixed volume but a gas does not.

Answer: <https://biology-forums.com/index.php?topic=374004>

### Question 1403

A distinctive characteristic of prokaryotes is \_\_\_\_\_.

- A) their ability to produce sugars
- B) their lack of a separation between the DNA and the rest of the cell
- C) their thick cell walls that separate the DNA from the rest of the cell
- D) their methane based metabolism
- E) their oxygen based metabolism

Answer: <https://biology-forums.com/index.php?topic=373656>

### Question 1404

The fall equinox in the Southern Hemisphere occurs on this date.

- A) June 21
- B) March 21
- C) December 21
- D) September 21

Answer: <https://biology-forums.com/index.php?topic=373955>

### Question 1405

There has been some political discussion in the past few years about whether we are experiencing "Global Climate Change." How would you evaluate this debate?

Answer: <https://biology-forums.com/index.php?topic=374002>

### Question 1406

If 2 grams of water absorbs 20 calories of heat, the resulting water temperature change is \_\_\_\_\_.

- A) +10°C
- B) +20°C
- C) -10°C
- D) 0°C
- E) -20°C

Answer: <https://biology-forums.com/index.php?topic=374012>

### Question 1407

Low air pressure systems are usually associated with \_\_\_\_\_.

- A) converging air, precipitation, and high pressure aloft
- B) diverging surface winds and low pressure aloft
- C) descending air and low pressure aloft
- D) clear weather

Answer: <https://biology-forums.com/index.php?topic=374114>

### Question 1408

\_\_\_\_\_ meteorites are thought to be analogous in composition to Earth's core.

- A) Iron
- B) Ammonical
- C) Calcareous
- D) Stony

Answer: <https://biology-forums.com/index.php?topic=374442>

### Question 1409

Sediments derived primarily from the products of weathering on the continents are called \_\_\_\_\_.

- A) hydrogenous sediment
- B) terrigenous sediment
- C) biogenous sediment
- D) both terrigenous and biogenous sediment

Answer: <https://biology-forums.com/index.php?topic=373740>

### Question 1410

About 88 percent of geologic time is represented by the time span called the \_\_\_\_\_ era.

- A) Paleozoic
- B) Mesozoic
- C) Precambrian
- D) Phanerozoic

Answer: <https://biology-forums.com/index.php?topic=373572>

### Question 1411

Why are there only 4-7 eclipses per year?

- A) The moon's orbit is inclined to the ecliptic and only crosses the ecliptic 3-4 times per year.
- B) The moon's orbit is inclined to the ecliptic and only crosses the ecliptic twice per year.
- C) There are only 4 full moons and 4 new moons per year, so no more than 4-7 are possible.
- D) There are more, they just aren't visible on both sides of the earth.

Answer: <https://biology-forums.com/index.php?topic=374369>

### Question 1412

Which the following denotes the positively charged particles in an atom's nucleus?

- A) protons
- B) isotrons
- C) neutrons
- D) electrons

Answer: <https://biology-forums.com/index.php?topic=372592>

### Question 1413

The earth's major layers formed because \_\_\_\_\_.

- A) the earth was heated after its formation resulting in melting and redistribution of major chemical compositions
- B) radioactive decay caused materials to change over time and resulted in the layering
- C) the earth's mantle grew like a crystal forming around the earth's core but the crust was exposed to space and stayed more like the original material
- D) the chemical composition of the solar nebula changed over time

Answer: <https://biology-forums.com/index.php?topic=373345>

### Question 1414

abyssal plain seamount oceanic ridge continental crust

Answer: <https://biology-forums.com/index.php?topic=372543>

### Question 1415

What is the source of the energy that powers the Earth system?

- A) the Sun
- B) heat from Earth's interior
- C) both A and B
- D) none of the above

Answer: <https://biology-forums.com/index.php?topic=372535>

### Question 1416

Why do crystals in a magma stop growing during cooling?

- A) They run out of heat.
- B) They run out of space.
- C) They become too dense to grow.
- D) The pressure from rocks above becomes too great and the magma stops growing crystals.

Answer: <https://biology-forums.com/index.php?topic=372698>

### Question 1417

ionic metallic valence covalent

Answer: <https://biology-forums.com/index.php?topic=372647>

### Question 1418

The planets stay in orbit around the Sun because of a balance between \_\_\_\_\_ and \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374380>

### Question 1419

When supercooled raindrops freeze on contact with solid objects, \_\_\_\_\_ forms.

Answer: <https://biology-forums.com/index.php?topic=374092>

### Question 1420

The deep zone makes up about 80% of the ocean waters and it is characterized by \_\_\_\_\_.

- A) water with relatively uniform temperature and density throughout
- B) water that gradually increases in temperature and decreases in density with depth
- C) water that gradually increases in temperature and density with depth
- D) water that gradually decreases in temperature and increases in density with depth
- E) water that gradually decreases in temperature and density with depth

Answer: <https://biology-forums.com/index.php?topic=373795>

### Question 1421

In the last 20 years geologists have begun measuring accumulation of Helium (He) in some minerals because these minerals can retain He at temperatures up to 100-200°C. The "date" gives a time when the material cooled below the temperature where the helium began to be retained, which is related to the depth of the material. Where do you think the He comes from that allows this technique to work?

- A) the atmosphere, like carbon-14
- B) the sun
- C) alpha decay of some radioactive element
- D) beta decay of some radioactive element

Answer: <https://biology-forums.com/index.php?topic=373565>

### Question 1422

Under what circumstances could the relative humidity exceed 100% without producing condensation in the air?

- A) when the water vapor is composed of "heavy" water
- B) when the dew point is higher than the air temperature
- C) when there are no condensation nuclei
- D) when the air is perfectly dry

Answer: <https://biology-forums.com/index.php?topic=374065>

### Question 1423

Why has it been so difficult to examine the surface of Venus with unmanned probes?

- A) The Venesian magnetic field is so strong it destroys electronics on the probes.
- B) Solar radiation is so intense that probes are lost before they reach Venus.
- C) The air pressure at the surface is equivalent to a water depth of nearly 1km on Earth, and temperatures are very high, which tends to destroy the probes.
- D) The atmosphere is so cloudy that it interferes with radio wave signals from earth, making communication with a probe difficult.

Answer: <https://biology-forums.com/index.php?topic=374420>

### Question 1424

When Calcium (Ca) bonds with oxygen, it gives up two electrons. What is the charge of the Ca ion in this compound?

- A) +2
- B) -1
- C) -2
- D) +1

Answer: <https://biology-forums.com/index.php?topic=372595>

### Question 1425

The Richter magnitude of an earthquake is determined from the \_\_\_\_\_.

- A) duration of the earthquake
- B) amplitude of the largest seismic wave

- C) intensity of the earthquake
- D) arrival time of P and S waves

Answer: <https://biology-forums.com/index.php?topic=373320>

### Question 1426

Explain briefly why a divergent plate boundary is also called a "constructive margin or boundary."

Answer: <https://biology-forums.com/index.php?topic=373290>

### Question 1427

The first telescopes, and most amateur telescopes, rely on the human eye to observe objects. The first improvement on this observation method used \_\_\_\_\_.

- A) digital cameras
- B) projection systems
- C) polyspectral scanners
- D) photographic film

Answer: <https://biology-forums.com/index.php?topic=374487>

### Question 1428

In an overturned fold, the beds have rotated \_\_\_\_\_.

- A) more than 45 degrees
- B) 100 to 150 degrees
- C) more than 180 degrees
- D) more than 90 degrees

Answer: <https://biology-forums.com/index.php?topic=373452>

### Question 1429

Which one of the following is not true for minerals?

- A) They can be identified by characteristic physical properties.
- B) They can be a liquid, solid, or gas.
- C) Many have a specific, predictable chemical composition.
- D) They have a specific, internal, crystalline structure.

Answer: <https://biology-forums.com/index.php?topic=372589>

### Question 1430

Standard sea level pressure in inches of mercury is \_\_\_\_\_.

- A) 14.70 inches
- B) 29.92 inches
- C) 7.52 inches
- D) 28.70 inches

Answer: <https://biology-forums.com/index.php?topic=374097>

### Question 1431

Which one of the following shows the correct order (left to right) of decreasing magma viscosity?

- A) andesite, rhyolite, basalt
- B) basalt, rhyolite, andesite
- C) basalt, andesite, rhyolite
- D) rhyolite, andesite, basalt

Answer: <https://biology-forums.com/index.php?topic=373375>

### Question 1432

Which one of the fogs listed below may be categorized as an evaporation fog?

- A) steam
- B) upslope
- C) radiation
- D) advection

Answer: <https://biology-forums.com/index.php?topic=374061>

### Question 1433

Major fisheries are concentrated in the neritic zone (above the continental shelf) because of all of the following except \_\_\_\_\_.

- A) there are rapid changes in oxygen concentrations, temperature, and salinity that encourage diversity
- B) nutrients wash in from land
- C) there is an abundance of sunlight to support photosynthesis
- D) the sea bottom provides shelter and habitat

Answer: <https://biology-forums.com/index.php?topic=373806>

### Question 1434

The rising of cold water from deeper layers to replace warmer surface water is called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373915>

### Question 1435

Cold fronts and warm fronts in the middle latitudes are often associated with a \_\_\_\_\_.

- A) low pressure
- B) hurricane
- C) middle-latitude cyclone
- D) both B and C

Answer: <https://biology-forums.com/index.php?topic=374185>

### Question 1436

The proposal that contends that Earth is in the center of the universe is called the \_\_\_\_\_ view.

Answer: <https://biology-forums.com/index.php?topic=374374>

### Question 1437

\_\_\_\_\_ is the boundary line separating adjacent stream drainage basins.

Answer: <https://biology-forums.com/index.php?topic=373125>

### Question 1438

Coastal California is famous for fog and smog (fog mixed with smoke). Why is the California coast foggy/smoggy, whereas Houston, Texas, which is at similar latitude, might get occasional smog from too many cars, but fog is relatively rare?

- A) Warm air in Texas rises to make clouds and not fog, whereas in California cold water from the ocean mixes with warm water from the land to generate fog.
- B) The ocean is warm off the Texas coast, but a cold current running offshore California generates fog when the cold, moist air is drawn ashore by a sea breeze.
- C) Cold currents along the Texas coast inhibit fog, whereas the ocean is warm off California.
- D) There isn't really any fog; it is all just smog from too many cars in California.

Answer: <https://biology-forums.com/index.php?topic=373844>

### Question 1439

The earth's core is entirely molten iron and convection of this molten mass generates the earth's magnetic field.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372563>

### Question 1440

A(n) \_\_\_\_\_ spectrum is produced when white light is passed through a comparatively cool gas under low pressure.

Answer: <https://biology-forums.com/index.php?topic=374526>

### Question 1441

Which of the following best describes melting of the mantle at subduction zones that leads to island arc volcanos?

- A) Water released from the subducting plate decreases the melting temperature in the mantle above the downgoing plate to generate magmas from the overlying mantle wedge.
- B) Heat is carried downward with the subducting plate and melts the mantle above the downgoing plate.
- C) The subducted plate subsides into the mantle and allows magma from the lower mantle magma ocean to rise toward the surface.
- D) The subducting plate is heated as it is carried to depth and the subducted oceanic crust melts.

Answer: <https://biology-forums.com/index.php?topic=373425>

### Question 1442

Midlatitude anticyclones are typically centered on \_\_\_\_\_.

- A) a maritime tropical air mass

- B) a continental tropical air mass
- C) a maritime polar air mass
- D) a continental polar air mass

Answer: <https://biology-forums.com/index.php?topic=374192>

### Question 1443

The proportion of dissolved substances in seawater is expressed as 0/00, which is the same as \_\_\_\_\_.

- A) parts per billion
- B) parts per thousand
- C) parts per million
- D) parts per hundred

Answer: <https://biology-forums.com/index.php?topic=373778>

### Question 1444

How is the earth's rotation axis oriented relative to the revolution orbit?

- A) It varies somewhat randomly over small angles, less than 23.5 degrees.
- B) It is fixed and always points toward the North Star regardless of season.
- C) It changes with time so that it is perpendicular in June and December.
- D) We don't really know how much it varies because we have not been able to make observations from space for more than about 60 years.

Answer: <https://biology-forums.com/index.php?topic=373958>

### Question 1445

Much of the city of New Orleans is below sea level, yet it was not an ocean when the city was first settled. How did it get below sea level?

- A) Drainage canals and groundwater withdrawal produced subsidence that dropped the land below sea level.
- B) Sea level is just rising.
- C) Oil production withdrew oil and produced land subsidence.
- D) The area was dredged to build levees, and so it was left below sea level.

Answer: <https://biology-forums.com/index.php?topic=373113>

### Question 1446

Polar regions receive nearly continuous sunlight in the summer months so why doesn't the mean temperature during those months get above 10°C?

- A) The reflection of the sun's energy (albedo) by the ice and snow prevents the area from warming.
- B) The sun's energy has to heat the frozen atmosphere in order to reach the land and that takes all summer.
- C) The sun is too low in the sky to be an effective heat source.
- D) In the summer, the winds blow from the cold oceans and keep the temperatures low.
- E) The ozone layer has thinned significantly over the polar regions and this prevents heat from being trapped near the surface in those areas.

Answer: <https://biology-forums.com/index.php?topic=374268>

### Question 1447

The exchange of energy between the surface of the earth, the atmosphere, and space causes \_\_\_\_\_.

- A) topography
- B) glaciers
- C) temperature
- D) weather

Answer: <https://biology-forums.com/index.php?topic=372505>

### Question 1448

Clouds can decrease the range of daily temperatures because \_\_\_\_\_.

- A) the water vapor absorbs the heat from the earth and sends reflects it back to the ground maintaining a uniform ground temperature during the day
- B) the clouds diffuse the solar radiation so it is spread out over a larger area
- C) the clouds store heat and that helps to maintain a uniform temperature at night and during the day
- D) the clouds reflect solar radiation back into space during the day

Answer: <https://biology-forums.com/index.php?topic=373989>

### Question 1449

The final stage for a star which is as massive as the Sun is a \_\_\_\_\_.

- A) red giant
- B) main-sequence star
- C) white dwarf
- D) black hole

Answer: <https://biology-forums.com/index.php?topic=374573>

### Question 1450

Chemical weathering in bedrock below the land surface often begins along joints and sheeting fractures.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372978>

### Question 1451

The Appalachian Mountains may have once been as lofty as the Himalayan-Tibetan Mountain belt is today. Why are they not this high now?

- A) The mountains cooled following the collision, which increased the density of the of the rocks by cooling, and isostasy forced the mountains to sink.
- B) They formed long ago, and erosion has beveled them to their present low elevation.
- C) They developed a dense crustal root following collision, and isostasy forced them to sink to their present elevation.
- D) Opening of the North Atlantic Ocean converted lithosphere to asthenosphere beneath eastern North America, forcing eastern North America to sink to low elevations.

Answer: <https://biology-forums.com/index.php?topic=373485>

### Question 1452

Most insurance companies will not insure property with a known landslide hazard. Why?

- A) They are just being cheap.
- B) The risk is negligible on human time spans, but they are unwilling to take the risk because of liability.
- C) The risk is high on human life time scales, and the hazard is difficult to assess.
- D) They are known to always occur during major disasters like earthquakes and hurricanes, and they don't want the exposure to a large disaster.

Answer: <https://biology-forums.com/index.php?topic=372936>

### Question 1453

When a hypothesis has survived extensive scrutiny and when competing ones have been eliminated, a hypothesis may be elevated to the status of a(n) \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=372574>

### Question 1454

In the late 20th century most metal prices were very low but metal prices increased dramatically in the early 21st century. Simultaneously, the early 21st century saw extensive "brown fields exploration" in which companies went to old mining areas and extracted old mine wastes or reopened old mine workings. What is the primary explanation for this activity?

- A) The companies were only interested acquiring properties through a sleazy land grab, and had no intention of doing anything with the deposits assuming no one cared about brown fields.
- B) Environmental regulations make it impossible to explore anywhere but old mining areas, so this was the only place the companies could look for deposits.
- C) The increase of metal prices made mineral resources that were previously uneconomic into ores that could potentially be extracted profitably.
- D) The old miners were wasteful and left large amounts of ore in the ground.

Answer: <https://biology-forums.com/index.php?topic=372644>

### Question 1455

Banded Iron Formations are interbedded iron oxides and chert that formed on the sea floor between 3.5 and 2 billion years ago because \_\_\_\_\_.

- A) outgassing produced both chert and iron oxide in roughly equal amounts and the oceans became saturated with them
- B) chert was being deposited by bacteria and iron was a common ocean deposit
- C) iron was using the oxygen produced by bacteria and chert was a common ocean deposit
- D) photosynthesis had not yet started to generate oxygen so iron and chert were the deposited on the sea floor
- E) iron and chert were very abundant in the early earth

Answer: <https://biology-forums.com/index.php?topic=373626>

### Question 1456

The vast majority of Earth scientists are involved in either extraction of mineral resources or energy.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372544>

### Question 1457

What is the major difference between the crust and the lithosphere?

- A) The crust is located between the lithosphere and the asthenosphere.
- B) The crust is located above the lithosphere.
- C) The crust is compositionally distinct from the mantle, but the lithosphere is the rigid part of the crust and mantle.
- D) The crust is cool and the lithosphere is hot.
- E) The crust is the rigid part of the earth and the lithosphere will flow.

Answer: <https://biology-forums.com/index.php?topic=373346>

### Question 1458

Like most other liquids, water decreases in volume when it freezes.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372977>

### Question 1459

sleet snow hail freezing rain

Answer: <https://biology-forums.com/index.php?topic=374077>

### Question 1460

When a mass of cold air collides with a mass of warm air, what happens?

- A) The warm air rises above the cold air.
- B) The boundary between the two air masses keeps them separate, and they do not interact in any way.
- C) The cold air rises above the warm air.
- D) The cold air is warmed and the warm air is cooled by their mixing.

Answer: <https://biology-forums.com/index.php?topic=374029>

### Question 1461

Solifluction occurs during the warmer summer months.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=373006>

### Question 1462

Climate change is a well-known human problem and remains controversial despite widespread scientific agreement on the issue. Although most scientists are familiar with the issues, if you were a congressman and wanted an informed analysis of the problem, which of the following would be most likely to give you the most complete analysis?

- A) an astronomer
- B) a geologist with knowledge of astronomy
- C) a meteorologist with knowledge of oceanography
- D) a physicist

Answer: <https://biology-forums.com/index.php?topic=372488>

### Question 1463

The continental shelf is located \_\_\_\_\_.

- A) between the continental slope and continental rise
- B) seaward of the continental slope
- C) between the continental rise and the abyssal plains
- D) landward of the continental slope

Answer: <https://biology-forums.com/index.php?topic=372531>

### Question 1464

adiabatic cooling orographic lifting frontal wedging convergence

Answer: <https://biology-forums.com/index.php?topic=374074>

### Question 1465

Which of the following would not typically be considered an Earth Science study?

- A) studies of volcanic eruptions
- B) studies of acid mine waters and the bacteria that live in those waters
- C) chemical refining of petroleum
- D) studies of impact craters on the moon

Answer: <https://biology-forums.com/index.php?topic=372487>

### Question 1466

Mechanisms that enhance or drive change are known as \_\_\_\_\_.

- A) negative feedback mechanisms
- B) closed feedback mechanisms
- C) open feedback mechanisms
- D) positive feedback mechanisms

Answer: <https://biology-forums.com/index.php?topic=372534>

### Question 1467

Which one of the following statements concerning cinder cones is false?

- A) They are small volcanoes with fairly steep sides.
- B) They are built mostly or entirely during one eruptive cycle.
- C) The cinders most commonly are basaltic.
- D) The cinders and other pyroclastic particles are consolidated into welded tuff.

Answer: <https://biology-forums.com/index.php?topic=373392>

### Question 1468

Based on the observed red shifts in the spectral lines of distant galaxies, astronomers conclude that \_\_\_\_\_.

- A) the universe is expanding
- B) the universe is in a steady state
- C) Earth is in the center of the universe
- D) the universe is contracting

Answer: <https://biology-forums.com/index.php?topic=374585>

### Question 1469

A very slow motion of Earth's axis that requires 26,000 years to complete is called \_\_\_\_\_.

- A) occultation
- B) axial precession
- C) Ptolemaic motion
- D) perturbation
- E) retrograde motion

Answer: <https://biology-forums.com/index.php?topic=374356>

### Question 1470

Balance for a main sequence star is achieved when \_\_\_\_\_.

- A) nuclear fusion and fission occur at the same rate
- B) temperature matches the rate of nuclear fusion
- C) gravitational collapse matches gas pressure
- D) gas pressure matches temperature
- E) all of the above

Answer: <https://biology-forums.com/index.php?topic=374569>

### Question 1471

In the early 1700's Kant suggested there were many galaxies visible from Earth but the idea was not popular because \_\_\_\_\_.

- A) the "Big Bang" theory did not support that concept
- B) at that time, people generally believed the earth was the center of the universe.
- C) only modern satellite data supports that point of view
- D) that hypothesis would require a significantly larger universe than was widely accepted at that time
- E) that hypothesis would require that objects travel faster than the speed of light

Answer: <https://biology-forums.com/index.php?topic=374539>

### Question 1472

Under the right circumstances, any rock can be transformed into another type of rock in the rock cycle.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372848>

### Question 1473

The dew point is the temperature at which \_\_\_\_\_.

- A) water vapor condenses to a liquid
- B) hailstones are formed
- C) water in the liquid state changes to vapor
- D) cumulus clouds change to cumulonimbus clouds

Answer: <https://biology-forums.com/index.php?topic=374017>

### Question 1474

Which of the following features characterize meandering streams and valleys?

- A) waterfalls; entrenched meanders
- B) rapids; channel bed potholes
- C) V-shaped valley cross sections
- D) natural levees; broad floodplains

Answer: <https://biology-forums.com/index.php?topic=373094>

### Question 1475

Why did Hubble think the Cepheid variables he saw in "Fuzzy Patches" were outside the milky way?

- A) They had a red shift character.
- B) Their brightness varied.
- C) They were dim.
- D) They were small.

Answer: <https://biology-forums.com/index.php?topic=374541>

### Question 1476

desert steppe subarctic rain shadow

Answer: <https://biology-forums.com/index.php?topic=374292>

### Question 1477

The major risk to humans from the depletion of ozone is the increase in \_\_\_\_\_.

- A) CO<sub>2</sub> from plant production
- B) deaths due to skin cancer
- C) chlorine in the atmosphere, which is poisonous to most humans
- D) cataracts and damage to the immune systems
- E) deaths due to lung cancer

Answer: <https://biology-forums.com/index.php?topic=373941>

### Question 1478

Both the Earth's moon and Mars have thick layers of loose surface materials. How are they different?

- A) They are not different. They are both comprised primarily of ejecta from impacts that accumulates on the surface.
- B) They are not different. Both have surfaces that are remnant soils from a period when they had water on the surface.
- C) They are different. Lunar regolith is mostly ejecta from impacts whereas Martian regolith is primarily wind-blown dust and sand on older surfaces that vary from water laid surfaces to volcanic surfaces.
- D) They are different. Lunar regolith is mostly ejecta from impacts, whereas Martian soil is more earthlike with classic soils developed by weathering of rock.

Answer: <https://biology-forums.com/index.php?topic=374425>

### Question 1479

One result of wave refraction is that wave energy is concentrated \_\_\_\_\_.

- A) in estuaries
- B) in the recessed areas between headlands
- C) on headlands projecting into the water
- D) none of the above

Answer: <https://biology-forums.com/index.php?topic=373866>

### Question 1480

calcite iron oxide shale silica

Answer: <https://biology-forums.com/index.php?topic=372844>

### Question 1481

The "true" brightness of a star is called its \_\_\_\_\_ magnitude.

Answer: <https://biology-forums.com/index.php?topic=374592>

### Question 1482

Thunder and lightning are normally associated with \_\_\_\_\_ clouds.

Answer: <https://biology-forums.com/index.php?topic=374087>

### Question 1483

When a TV weather forecaster gives a forecast for "widely scattered afternoon thunderstorms," these storms are probably associated with \_\_\_\_\_.

- A) an unstable air mass, probably maritime tropical air with thunderstorms driven by thermals in an unstable air mass
- B) a warm front generating thunderstorms along it
- C) the core of a midlatitude cyclone
- D) a cold front generating thunderstorms along it

Answer: <https://biology-forums.com/index.php?topic=374196>

### Question 1484

Caves most commonly form in \_\_\_\_\_.

- A) quartzite
- B) limestone
- C) sandstone
- D) shale

Answer: <https://biology-forums.com/index.php?topic=373103>

### Question 1485

The first telescopes, and most amateur telescopes, rely on the human eye to observe objects. Modern telescopes record the observations with \_\_\_\_\_.

- A) projection systems
- B) photographic film
- C) polyspectral scanners
- D) digital cameras

Answer: <https://biology-forums.com/index.php?topic=374488>

### Question 1486

Galileo observed several features using the telescope. Which one of the following did he not discover?

- A) the two moons of Mars
- B) phases of Venus
- C) sunspots
- D) Jupiter's four largest moons

Answer: <https://biology-forums.com/index.php?topic=374332>

### Question 1487

The earth is sometimes called "The Blue Planet" because the atmosphere appears blue in sunlight.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372559>

### Question 1488

Which of the following is not part of the water cycle?

- A) water evaporating from a lake
- B) calcium carbonate dissolving in soil water and groundwater
- C) water infiltrating into the soil and bedrock
- D) water moving into creeks and streams following a rainstorm

Answer: <https://biology-forums.com/index.php?topic=373046>

### Question 1489

Nearly all large optical telescopes built today are \_\_\_\_\_.

- A) radio

- B) refractors
- C) reflectors

Answer: <https://biology-forums.com/index.php?topic=374484>

### Question 1490

Humid middle-latitude climates with mild winters tend to have less precipitation in the summer than during the rest of the year because \_\_\_\_\_.

- A) higher temperatures in those regions result in more precipitation over the oceans and less over the land.
- B) oceanic subtropical highs migrate toward the equator during the summer.
- C) higher temperatures in those regions carry the moist air higher into the atmosphere.
- D) oceanic subtropical highs migrate poleward during the summer.

Answer: <https://biology-forums.com/index.php?topic=374260>

### Question 1491

Which of the following is most resistant to both chemical and physical weathering?

- A) clay minerals
- B) a granite
- C) quartz
- D) a limestone

Answer: <https://biology-forums.com/index.php?topic=372905>

### Question 1492

The Sierra Nevada Mountains of California, and the Teton Mountains of Wyoming, ranges are examples of \_\_\_\_\_.

- A) folding, compression, and thickening of Paleozoic strata in Jurassic time
- B) uplifted blocks bounded by Quaternary reverse faults
- C) isostatic uplift of crust over thickened in early Paleozoic time
- D) fault blocks uplifted by late Tertiary to Quaternary normal faulting

Answer: <https://biology-forums.com/index.php?topic=373476>

### Question 1493

Petrified wood is an example of a fossil formed by \_\_\_\_\_.

- A) cast and mold preservation
- B) permineralization replacing original cellulose of the wood
- C) direct preservation
- D) trace fossil imprints

Answer: <https://biology-forums.com/index.php?topic=373542>

### Question 1494

An isolated remnant of wave erosion is a \_\_\_\_\_.

- A) spit
- B) sea stack
- C) jetty
- D) groin

Answer: <https://biology-forums.com/index.php?topic=373877>

### Question 1495

The Köppen climate classification system uses mean monthly and annual values of \_\_\_\_\_ and \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374298>

### Question 1496

The greatest loss of life during a natural disaster occurred during \_\_\_\_\_.

- A) the 1900 Galveston hurricane
- B) a tornado in the Midwest
- C) a 1959 blizzard in the Midwest
- D) Hurricane Katrina

Answer: <https://biology-forums.com/index.php?topic=374212>

### Question 1497

As stream discharge increases \_\_\_\_\_.

- A) only depth increases

- B) velocity, width, and depth decrease  
C) only velocity increases  
D) velocity, width, and depth increase

Answer: <https://biology-forums.com/index.php?topic=373061>

### Question 1498

Comets are made up primarily of \_\_\_\_\_.

- A) frozen water, carbon dioxide, and methane  
B) iron-nickel alloys  
C) frozen hydrogen  
D) silicate minerals, like rocks on Earth

Answer: <https://biology-forums.com/index.php?topic=372499>

### Question 1499

Considering the factors involved in the formation of clouds, briefly discuss the relationship of climate and clouds. Would you expect such things as cloud height and the types of clouds to vary from one region to another due to differing climates? Why or why not? Also, how would geography affect this process?

Answer: <https://biology-forums.com/index.php?topic=374094>

### Question 1500

How do the strength and cohesion of clay-rich regolith or soil change with the addition of water?

- A) Water reduces the strength of clays but raises the cohesion of the soil.  
B) Water lowers the strength and cohesion.  
C) Water increases the strength and cohesion.  
D) Water does not affect the cohesion but lowers the strength.

Answer: <https://biology-forums.com/index.php?topic=372960>

### Question 1501

Phobos Pluto Titan Callisto

Answer: <https://biology-forums.com/index.php?topic=374450>

### Question 1502

On each continent, large "core areas" of Precambrian rocks, called \_\_\_\_\_, dominate the surface.

Answer: <https://biology-forums.com/index.php?topic=373686>

### Question 1503

\_\_\_\_\_ is the principal gas in the Venusian atmosphere and also a minor component of the atmospheres of Earth and Mars.

- A) Carbon dioxide  
B) Nitrogen  
C) Ozone  
D) Methane

Answer: <https://biology-forums.com/index.php?topic=374418>

### Question 1504

A spring tide occurs \_\_\_\_\_.

- A) once a year at the first full moon after the vernal equinox  
B) twice a year at the new or full moon closest to the vernal and autumnal equinox  
C) once a month, or 12 times a year  
D) about 26 times per year, at every full and new moon

Answer: <https://biology-forums.com/index.php?topic=373907>

### Question 1505

Which ocean has the greatest average depth?

- A) Arctic  
B) Indian  
C) Pacific  
D) Atlantic

Answer: <https://biology-forums.com/index.php?topic=373704>

### Question 1506

Most marine animals live near the surface of the ocean because of \_\_\_\_\_, which supports photosynthesis by marine algae that form the basis of the food chain.

- A) thermocline
- B) sunlight
- C) air
- D) warmer temperatures

Answer: <https://biology-forums.com/index.php?topic=373799>

### Question 1507

Scientists only use measurements that are known to be reliable and accurate.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372548>

### Question 1508

The height, length, and period of a wave depend upon \_\_\_\_\_.

- A) the wind speed
- B) the fetch
- C) the length of time the wind has blown
- D) all of these

Answer: <https://biology-forums.com/index.php?topic=373856>

### Question 1509

The finely divided, red, brown, and yellow soil-coloring minerals originate by what process?

- A) mechanical weathering of very fine-grained, blue-gray clays
- B) mechanical weathering of the feldspars and micas in granite and rhyolite
- C) chemical weathering of quartz and feldspars
- D) precipitation of iron oxides during the chemical weathering process

Answer: <https://biology-forums.com/index.php?topic=372899>

### Question 1510

A dark gray cloud that blankets the sky and often generates precipitation is called \_\_\_\_\_.

- A) altostratus
- B) cirrus
- C) nimbostratus
- D) cirrostratus

Answer: <https://biology-forums.com/index.php?topic=374055>

### Question 1511

Southwestern North America contains a large area called the Basin and Range province. What is the origin of this name?

- A) Thrust faulting along the San Andreas fault produces linear ridges, the ranges, with intervening basinal valleys forming fault block mountains.
- B) The area is characterized by chains of volcanos forming ranges next to basins that form valleys.
- C) Ranges are uplifted horst blocks adjacent to basins formed as graben.
- D) Folds have formed by compressional stresses along the plate margin forming ridges (ranges) and valleys (the basins) of the basin and range province.

Answer: <https://biology-forums.com/index.php?topic=373463>

### Question 1512

Red Giant neutron star main sequence Red Supergiants

Answer: <https://biology-forums.com/index.php?topic=374590>

### Question 1513

The \_\_\_\_\_ sides of mountains are often wet.

- A) windward
- B) southern
- C) sunny
- D) steep

E) leeward

Answer: <https://biology-forums.com/index.php?topic=374255>

### Question 1514

This fog forms in valleys at night.

- A) radiation fog
- B) advection fog
- C) precipitation fog
- D) steam fog

Answer: <https://biology-forums.com/index.php?topic=374058>

### Question 1515

Permanent streams in desert regions are rare, and when they do occur, \_\_\_\_\_.

- A) they originate outside of the desert region and have few tributaries in the desert
- B) they originate in a glacier region
- C) they get their water from wadis and arroyos
- D) they have numerous tributaries to keep them supplied with water as they cross the desert

Answer: <https://biology-forums.com/index.php?topic=373195>

### Question 1516

A total eclipse of the Sun is only possible at \_\_\_\_\_.

- A) new moon
- B) third quarter
- C) first quarter
- D) second quarter

Answer: <https://biology-forums.com/index.php?topic=374367>

### Question 1517

A small town in New Mexico discovers that a chemical plant outside of town recently learned that one of their underground pipelines had broken without their knowledge and had been leaking a toxic organic compound for over a month. The spill occurred 5m below the surface in a sandstone above a thin shale bed in the local bedrock. The beds are flat lying and this shale crops out 200m from the chemical plant. The town gets its water from deep wells, about 300m deep. What should the town worry about from this spill?

- A) There is a threat by the company to move because they do not want to clean up the damage.
- B) There is no immediate worry, but in the long term their city water will almost certainly be contaminated.
- C) There is no threat to the city water, but there is a likely health threat when the chemical moves to the surface outcrops of the layers the spill occurred in.
- D) There is an immediate threat of contamination of the city water supply.

Answer: <https://biology-forums.com/index.php?topic=373114>

### Question 1518

Galileo Aristotle Kepler Newton

Answer: <https://biology-forums.com/index.php?topic=374370>

### Question 1519

What is the dew point for the conditions listed above?

- A) 20°C
- B) 25°C
- C) 15°C
- D) colder than 15°C

Answer: <https://biology-forums.com/index.php?topic=374020>

### Question 1520

cirrus cumulus nimbostratus altocumulus

Answer: <https://biology-forums.com/index.php?topic=374075>

### Question 1521

Earth's core, mantle, and crust formed during the \_\_\_\_\_.

- A) Paleozoic
- B) Hadean

- C) Tertiary
- D) Proterozoic
- E) Archaean

Answer: <https://biology-forums.com/index.php?topic=373614>

### Question 1522

The era of "ancient life" is the \_\_\_\_\_ era.

- A) Paleozoic
- B) Cenozoic
- C) Precambrian
- D) Mesozoic

Answer: <https://biology-forums.com/index.php?topic=373571>

### Question 1523

A neutron star theoretically will form from a supernovae collapse that \_\_\_\_\_.

- A) fuses all of the atoms into super atoms with very high atomic numbers
- B) compresses all atoms so that electrons are so close to the nucleus that all of the protons are converted to neutrons
- C) converts the atomic nucleus to a small volume with high mass by expelling all neutrons
- D) forms ions that bond electrostatically into very small volumes

Answer: <https://biology-forums.com/index.php?topic=374575>

### Question 1524

Chemical weathering would be most effective \_\_\_\_\_.

- A) equally in any kind of climate
- B) in a warm, dry climate
- C) in a cold, dry climate
- D) in a warm, humid climate

Answer: <https://biology-forums.com/index.php?topic=372729>

### Question 1525

Which of the following is the poorest absorber of solar radiation?

- A) ozone
- B) oxygen
- C) water vapor
- D) nitrogen

Answer: <https://biology-forums.com/index.php?topic=373977>

### Question 1526

The Bermuda high is a large, persistent high pressure system centered roughly on the island of Bermuda in the mid-Atlantic, hence the name. Air circulates clockwise around high pressure systems because of the Coriolis effect. Is there any connection between Atlantic Ocean currents and this weather feature?

- A) Yes, they are crudely correlated, but the weather systems are so chaotic that the correlation is not meaningful.
- B) No, North Atlantic circulation is clockwise, but the connections to the Bermuda high circulation are only circumstantial; the ocean circulation is a bigger feature.
- C) Yes, North Atlantic circulation is approximately the same as the long term average circulation of the Bermuda high.
- D) No, the North Atlantic Ocean circulation is counterclockwise, like all Northern Hemisphere gyres.

Answer: <https://biology-forums.com/index.php?topic=373845>

### Question 1527

The west coast of California is underlain by rocks that represent \_\_\_\_\_.

- A) an ancient volcanic arc
- B) an ancient Forearc Basin and accretionary wedge
- C) an oceanic plateau
- D) a collisional orogenic belt

Answer: <https://biology-forums.com/index.php?topic=373468>

### Question 1528

The next large earthquake on the San Andreas Fault zone in California is considered likely to be \_\_\_\_\_.

- A) in San Francisco because large earthquakes there are thought to occur every 75 years and the last large earthquake was in 1906
- B) in Southern California because it has been nearly 300 years since the last major earthquake in that area

C) in northern California because the last major earthquake was in central California and the plate boundary is moving the stress to the northwest.  
D) All of the fault system is considered equally likely because the plate motion is uniform and all areas are affected equally.  
Answer: <https://biology-forums.com/index.php?topic=373340>

### Question 1529

Earthflows and slumps generally involve movement of unconsolidated or weakly consolidated soil and regolith.  
A) [b]True[/b]  
B) [b]False[/b]  
Answer: <https://biology-forums.com/index.php?topic=373003>

### Question 1530

loess alluvial fan playa inselberg  
Answer: <https://biology-forums.com/index.php?topic=373211>

### Question 1531

If you could modify or replace the Köppen classification system what information would you incorporate that is not currently part of the system?  
Answer: <https://biology-forums.com/index.php?topic=374314>

### Question 1532

What mineral is the hardest known substance in nature?  
A) muscovite  
B) native gold  
C) silicate  
D) diamond  
Answer: <https://biology-forums.com/index.php?topic=372604>

### Question 1533

Which of the following is not an accurate statement about the melting process in the earth's interior?  
A) Water dramatically lowers the melting temperature of silicate rocks, and addition of water commonly contributes to production of magma.  
B) The earth's lower mantle is entirely molten and heat from this zone produces partial melting in the upper mantle, which produces the diverse volcanic rocks we see at the earth's surface.  
C) Upwelling flow in the earth's interior brings higher temperature rocks toward the surface and contributes to decompression melting.  
D) Melting of rocks is incomplete with partial melts extracted as magma and solid residues left behind.  
Answer: <https://biology-forums.com/index.php?topic=373424>

### Question 1534

Large megathrust earthquakes in the mountainous regions flanking the Mediterranean sea are generally due to \_\_\_\_\_.  
A) the collision of the Indian Plate with Eurasia  
B) the collision of the African Plate with Eurasia  
C) the collision of the Indian Plate with Southeast Asia  
D) the collision of the African Plate with Southeast Asia  
Answer: <https://biology-forums.com/index.php?topic=373335>

### Question 1535

In recent years there has been more discussion of droughts in places like eastern Texas, which is not considered a desert, than in southern Arizona which clearly is a desert. Does this mean that arid environments are changing and it would be better to invest in farm land near Phoenix, Arizona, than near Austin, Texas, for long term financial security?  
Answer: <https://biology-forums.com/index.php?topic=373224>

### Question 1536

Seamounts \_\_\_\_\_.  
A) are a special type of oceanic trench  
B) form only in the Pacific Ocean basin  
C) are submarine canyons found near Australia  
D) are volcanoes that form on the ocean floor  
Answer: <https://biology-forums.com/index.php?topic=373725>

### Question 1537

Which of the following is typically not associated with the life cycle of a thunderstorm?

- A) the development of strong downdrafts with heavy rain
- B) strong vertical airflow with vertical motions as high as 100 km/hr
- C) the development of stratus clouds and initiation of light rain
- D) development of a cumulus cloud growing to a cumulonimbus

Answer: <https://biology-forums.com/index.php?topic=374197>

### Question 1538

Adiabatic temperature changes occur even though heat is not added or subtracted from the atmosphere because \_\_\_\_\_.

- A) the atmosphere moves into a different temperature strata
- B) molecules are either compressed or expanded which changes their motion
- C) the ground is heated or cooled and it radiates energy into the adjacent air
- D) heat is added in some other form to change the temperature

Answer: <https://biology-forums.com/index.php?topic=374024>

### Question 1539

The atomic particle that carries a positive charge is called a(n) \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=372684>

### Question 1540

The common source of pressure during compaction of sediments is \_\_\_\_\_.

- A) the weight of the compacting sediments causing internal pressure
- B) the pressure of the sediments pushing the compacting sediments out of the way during deposition
- C) the weight of water above the sediments after they are deposited
- D) the weight of the sediments deposited above the compacting sediments

Answer: <https://biology-forums.com/index.php?topic=372740>

### Question 1541

Lahars are essentially mudflows associated with volcanoes and volcanism.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372983>

### Question 1542

The Goldilocks scenario suggests that \_\_\_\_\_.

- A) we are very fortunate that the meteorites that have bombarded the earth over time were not too large or too small
- B) we are very fortunate to be in a solar system where life can develop and be sustained
- C) we are very fortunate to be in the right place in the universe and to have had the right condition to develop and sustain life
- D) we are very fortunate that dinosaurs were destroyed but left us an inhabitable planet

Answer: <https://biology-forums.com/index.php?topic=373604>

### Question 1543

The supercontinent of Pangaea began to break up during the \_\_\_\_\_ era.

- A) Mesozoic
- B) Precambrian
- C) Cenozoic
- D) Paleozoic

Answer: <https://biology-forums.com/index.php?topic=373640>

### Question 1544

A stream meanders across a broad, flat valley with numerous swamps and lakes. This stream is \_\_\_\_\_.

- A) running on bedrock
- B) running well above base level
- C) responding to a fall in base level
- D) running at base level or below base level

Answer: <https://biology-forums.com/index.php?topic=373085>

### Question 1545

In thrust faulting, \_\_\_\_\_.

- A) the crust is shortened and thickened

- B) the hanging wall block slips downward along the thrust fault  
C) grabens develop on the footwall block  
D) horizontal, tensional stresses drive the deformation

Answer: <https://biology-forums.com/index.php?topic=373460>

### Question 1546

The basic concept of Uniformitarianism is \_\_\_\_\_.

- A) nothing has changed since the earth was formed  
B) evolution, Plate Tectonics, and similar theories are all related and can be viewed as the grand theory of Uniformitarianism.  
C) there is a predictable way that the laws of nature change over time and we are beginning to understand them  
D) geology has not changed since the earth was formed but other things do change  
E) geology changes constantly but the rules that control those transformations do not change

Answer: <https://biology-forums.com/index.php?topic=373513>

### Question 1547

The type of spectrum produced by a common light bulb is a \_\_\_\_\_.

- A) bright-line (emission) spectrum  
B) continuous spectrum  
C) dark-line (absorption) spectrum  
D) all of the above  
E) none of the above

Answer: <https://biology-forums.com/index.php?topic=374473>

### Question 1548

Heat flows \_\_\_\_\_.

- A) from cold to hot  
B) from hot to cold  
C) in both directions  
D) in neither direction

Answer: <https://biology-forums.com/index.php?topic=373967>

### Question 1549

All of the following are possible indicators that creep is occurring except for \_\_\_\_\_.

- A) tilted fences or power line poles  
B) cracks in roads or sidewalks  
C) an extremely thick soil profile  
D) curved tree trunks

Answer: <https://biology-forums.com/index.php?topic=372963>

### Question 1550

Why are there virtually no sediments at ocean ridges, even when they are close to land?

- A) The crust is too young; there hasn't been enough time for sediments to accumulate.  
B) The sediments get deflected from the topographic high of the ridge.  
C) The sediments get buried by volcanic rocks, so are not visible.  
D) No one knows, it is one of the mysteries of geology.

Answer: <https://biology-forums.com/index.php?topic=373738>

### Question 1551

Slate is associated with high-grade metamorphism.

- A) [b]True[/b]  
B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372873>

### Question 1552

The \_\_\_\_\_ zone refers to the area where the land and ocean meet and overlap.

Answer: <https://biology-forums.com/index.php?topic=373835>

### Question 1553

The beginning of the Phanerozoic is marked by the \_\_\_\_\_.

- A) development of hard body parts, such as shells and bones
- B) formation of large land masses
- C) evolution of land plants and animals
- D) existence of a modern atmosphere
- E) abundant life forms compared to earlier times

Answer: <https://biology-forums.com/index.php?topic=373642>

### Question 1554

The \_\_\_\_\_ is thought to be a liquid, metallic region in the earth's interior.

- A) mantle
- B) outer core
- C) lithosphere
- D) inner core

Answer: <https://biology-forums.com/index.php?topic=372509>

### Question 1555

The apparent westward drift of the planets as compared to the background stars is called \_\_\_\_\_ motion.

Answer: <https://biology-forums.com/index.php?topic=374373>

### Question 1556

The major role of thermal energy (heat) in metamorphism is \_\_\_\_\_.

- A) increasing the processes of dissolution and flow of different minerals
- B) driving chemical reactions that lead to recrystallization
- C) reducing the strength of rocks so that stress can be an effective agent of change
- D) providing energy for the physical changes that occur during metamorphism

Answer: <https://biology-forums.com/index.php?topic=372746>

### Question 1557

Features like rock ledges in badlands or rock fins standing above adjacent valleys are all examples of \_\_\_\_\_.

- A) glacial erosion
- B) differential weathering
- C) river erosion
- D) chemical weathering

Answer: <https://biology-forums.com/index.php?topic=372910>

### Question 1558

What is the most abundant element in the atmospheres of Jupiter and Saturn?

- A) hydrogen
- B) helium
- C) ammonia
- D) nitrogen

Answer: <https://biology-forums.com/index.php?topic=374434>

### Question 1559

If sea ice melts, this would affect the climate by \_\_\_\_\_.

- A) increasing the amount of solar energy absorbed at the surface
- B) increasing the moisture in the atmosphere
- C) reducing the amount of solar energy absorbed at the surface
- D) increasing albedo
- E) decreasing the moisture in the atmosphere

Answer: <https://biology-forums.com/index.php?topic=374279>

### Question 1560

If you are a sunbather sitting high and dry on a beach, sipping your drink and watching the waves roll in, you are on \_\_\_\_\_.

- A) the shoreline
- B) the foreshore
- C) a backshore berm
- D) any of the above

Answer: <https://biology-forums.com/index.php?topic=373854>

### Question 1561

Why did scientists not accept the Continental Drift hypothesis?

- A) It was proposed by a woman.
- B) It was based on observations from the southern hemisphere which was unfamiliar to most geologists.
- C) It did not explain how ocean basins form.
- D) It did not explain most modern observations.

Answer: <https://biology-forums.com/index.php?topic=373229>

### Question 1562

Compare Earth's surface processes to the surface processes on Saturn's moon Titan.

Answer: <https://biology-forums.com/index.php?topic=374461>

### Question 1563

Standard sea level pressure is \_\_\_\_\_ inches of mercury.

Answer: <https://biology-forums.com/index.php?topic=374152>

### Question 1564

A major cause of the differences in elevation between ocean basins and continents is \_\_\_\_\_.

- A) viscosity
- B) temperature
- C) mass
- D) density

Answer: <https://biology-forums.com/index.php?topic=372521>

### Question 1565

Death Valley is a site where \_\_\_\_\_ sedimentary rocks are common.

- A) clastic
- B) biochemical
- C) detrital
- D) evaporite

Answer: <https://biology-forums.com/index.php?topic=372731>

### Question 1566

Short term earthquake prediction research has focused on \_\_\_\_\_.

- A) looking for precursors such as changes in topography, animal behavior, foreshocks, radon emission, etc that might signal an imminent earthquake
- B) measuring vertical changes in elevation along faults to determine whether a fault zone is inflating before a major rupture
- C) measuring the rate of motion on various faults and the strength of the rocks along the faults to determine when the stress buildup will exceed the strength of the rocks
- D) looking at when and where earthquakes have occurred in the past to develop a model for the timing of future earthquakes

Answer: <https://biology-forums.com/index.php?topic=373336>

### Question 1567

The main difference between weather and climate is that \_\_\_\_\_.

- A) climate is the regional pattern based on latitude and humidity while weather is the daily pattern based on season.
- B) weather is the regional pattern based on latitude and humidity while climate is the daily pattern based on season.
- C) climate is the daily variations that actually occur at a location and weather is the general pattern of climate over time
- D) weather is the daily variations that actually occur at a location and climate is the general pattern of weather over time
- E) climate is a political opinion while weather is reality.

Answer: <https://biology-forums.com/index.php?topic=373930>

### Question 1568

Cenozoic Phanerozoic Mesozoic Paleozoic

Answer: <https://biology-forums.com/index.php?topic=373675>

### Question 1569

The principle of cross-cutting relationships which states that a geologic feature that cuts across another feature must be younger than the feature it cuts is important because \_\_\_\_\_.

- A) it provided a way to recognize if rocks had been deformed

- B) it provided a tool for sorting out the relative timing of various geologic events
- C) it showed that igneous rocks were younger than sedimentary rocks
- D) it allowed geologists to correlate rock units over large distances

Answer: <https://biology-forums.com/index.php?topic=373522>

### Question 1570

Early Earth was hot because \_\_\_\_\_.

- A) a combination of collisions and radioactive decay produced heat
- B) the moon's formation from an giant impact produced heat
- C) gravitational collapse generates heat
- D) there was still heat from the original big bang
- E) the Sun was much larger and heated the early planet

Answer: <https://biology-forums.com/index.php?topic=373613>

### Question 1571

Folds are an example of \_\_\_\_\_.

- A) ductile deformation
- B) shear deformation
- C) brittle deformation
- D) elastic deformation

Answer: <https://biology-forums.com/index.php?topic=373447>

### Question 1572

In natural systems, mechanisms that drive or enhance change are called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=372581>

### Question 1573

Which term denotes the true soil above the zone of partly weathered bedrock?

Answer: <https://biology-forums.com/index.php?topic=373030>

### Question 1574

A transform fault is \_\_\_\_\_.

- A) a reverse fault that steepens into a thrust fault
- B) a strike-slip fault that forms the boundary between tectonic plates
- C) the rift bounding fault on a mid-ocean ridge
- D) a dip-slip fault connecting an anticline with a syncline

Answer: <https://biology-forums.com/index.php?topic=373456>

### Question 1575

\_\_\_\_\_ has atmospheric pressures at its surface that are roughly comparable to those at Earth's surface.

- A) Saturn's moon Titan
- B) Neptune's moon Cassini
- C) Uranus's moon Miranda
- D) Jupiter's moon Io

Answer: <https://biology-forums.com/index.php?topic=374428>

### Question 1576

Frost wedging is the major weathering process contributing to the formation of which regolith material?

- A) tropical soils
- B) clay minerals
- C) talus slopes
- D) soil horizons

Answer: <https://biology-forums.com/index.php?topic=372897>

### Question 1577

The mineral fluorite is commonly sold in mineral shops as octahedral (8-sided) objects. This shape originates from \_\_\_\_\_.

- A) the growth of fluorite in caves and is the form the crystals grow in the open cavern
- B) a pseudomorph (false form) of fluorite from replacement of a salt, potassium chlorite, that grows in octahedral crystals
- C) the typical crystal form of fluorite

D) cutting a larger crystal along four perfect cleavage planes, forming a cleavage fragment

Answer: <https://biology-forums.com/index.php?topic=372617>

### Question 1578

Which of the following statements apply to the asthenosphere, but not the lithosphere?

- A) cool, rigid layer of crust and upper mantle that forms the tectonic plates
- B) zone in the upper mantle that deforms by plastic flowage
- C) partial melting of rising granitic plumes produces huge volumes of basaltic magma
- D) deforms mainly by brittle fracturing and faulting

Answer: <https://biology-forums.com/index.php?topic=373244>

### Question 1579

Evaporites have a biochemical origin.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372866>

### Question 1580

The Andes Mountains in South America are formed by \_\_\_\_\_.

- A) sea floor spreading
- B) back-arc contraction
- C) continental collision
- D) subduction

Answer: <https://biology-forums.com/index.php?topic=372517>

### Question 1581

Vast, circular to elliptical dark-colored areas on the moon called maria represent \_\_\_\_\_.

- A) remnant highlands produced from a time when the moon was entirely molten
- B) large volcanos
- C) very large impact craters filled with basaltic lava
- D) large lowlands that were sea-beds when the moon had water

Answer: <https://biology-forums.com/index.php?topic=374404>

### Question 1582

When Earth is farthest from the Sun, its location is referred to as the \_\_\_\_\_ position.

Answer: <https://biology-forums.com/index.php?topic=374390>

### Question 1583

Oceanic plateaus and seamounts are both bathymetric highs on the seafloor. When they encounter a subduction zone oceanic plateaus are generally accreted to become a(n) \_\_\_\_\_ whereas seamounts typically are \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373503>

### Question 1584

The layer of the solar atmosphere directly above the photosphere is referred to as the \_\_\_\_\_.

- A) solarsphere
- B) corona
- C) ionosphere
- D) megasphere
- E) chromosphere

Answer: <https://biology-forums.com/index.php?topic=374498>

### Question 1585

The 2010 deep water horizon oil spill in the Gulf of Mexico was a tragedy brought on in part by new technology allowing development of oil and gas reserves in deep water. Given the scope of the spill, why would companies take a risk of such a disaster given the scope of the litigation following the disaster?

- A) They just assume their lawyers can win any lawsuit, regardless of the disaster.
- B) The potential profit is so large from a major oil find that the companies take the risk, try to use all cautions to minimize risk, but sometimes fail.
- C) They didn't care about the risk, they just drove forward.
- D) The oil and gas industry is poor at assessing risk, and didn't understand the risk.

Answer: <https://biology-forums.com/index.php?topic=373752>

### Question 1586

Saturn is famous for its rings. Which of the following Jovian planets does not have rings?

- A) Jupiter
- B) Neptune
- C) Uranus
- D) None, all of the Jovian planets have rings

Answer: <https://biology-forums.com/index.php?topic=374436>

### Question 1587

When someone says we have a southeast wind, what direction would you look to face into the wind?

- A) west
- B) northwest
- C) east
- D) southeast

Answer: <https://biology-forums.com/index.php?topic=374139>

### Question 1588

You are in a boat and concerned about shallow water in a meandering river. Where should you aim your boat to find the deepest water?

- A) midchannel
- B) on the outside of the curve, close to the cut bank
- C) along the inside of the curve
- D) It doesn't matter, as long as you remain a meter or two from either bank

Answer: <https://biology-forums.com/index.php?topic=373075>

### Question 1589

You might wonder why a millibar isn't exactly 1/1000th of an atmosphere. The unit is actually related to the old CGS units because atmospheric pressure is close to this unit. In CGS units 1 bar = 1000 dynes/cm<sup>2</sup>. Pressure is often incorrectly reported as kg/cm<sup>2</sup>, which is neither a legitimate pressure unit nor a standard SI unit (pressure is force/unit area, and kg are a mass unit, and SI units never mix kg and cm). So let's straighten out your friends on these units. Standard air pressure in this incorrect unit is 1.034 kg/cm<sup>2</sup>. The weight of a kg at the earth's surface is 980,000 dynes. So what is standard air pressure in millibars?

- A) 890 mb
- B) 1143 mb
- C) 1013 mb
- D) 750 mb

Answer: <https://biology-forums.com/index.php?topic=374101>

### Question 1590

"Perhaps more than any other single measurement, atmospheric pressure is the best indicator of current and changing weather conditions." Briefly discuss why this statement is correct.

Answer: <https://biology-forums.com/index.php?topic=374163>

### Question 1591

The subpolar low (polar front) is \_\_\_\_\_.

- A) a zone where the polar easterlies and the westerlies converge
- B) a zone where the trade winds meet
- C) the boundary between frozen and liquid
- D) the forward edge of the Antarctic ice cap

Answer: <https://biology-forums.com/index.php?topic=374126>

### Question 1592

Why are humid middle-latitude climates with severe winters not found in the Southern Hemisphere?

- A) The Southern Hemisphere is dominated by oceans.
- B) Mountains block the flow of moist air in the Southern Hemisphere.
- C) Coastal regions in the Southern Hemisphere are mostly volcanic.
- D) The Southern Hemisphere is dominated by warm winds.
- E) It is too warm in the Southern Hemisphere to have severe winters.

Answer: <https://biology-forums.com/index.php?topic=374263>

### Question 1593

The \_\_\_\_\_ west coast climate is situated on the western (windward) side of continents from about 40 to 65 degrees north and south latitude.

- A) subtropical
- B) marine
- C) humid
- D) continental
- E) Mediterranean

Answer: <https://biology-forums.com/index.php?topic=374262>

### Question 1594

The low, bedrock ridges and peaks of a highly eroded, basin and range, desert landscape are called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373218>

### Question 1595

Why does the Florida peninsula experiences the greatest frequency of midafternoon thunderstorms of any place in the United States?

- A) It gets the water vapor from the trade winds crossing the Atlantic Ocean that fuels the thunderstorms.
- B) It is near the Bermuda Triangle.
- C) It gets winds blowing from the oceans on both sides and they collide in the middle of Florida and rise to generate thunderstorms.
- D) It is further south and warmer than any other place in the United States.

Answer: <https://biology-forums.com/index.php?topic=374032>

### Question 1596

During the 1906 San Francisco earthquake, the movement of the Pacific Plate was approximately \_\_\_\_\_.

- A) 100 meters
- B) 10 meters
- C) 1 meter
- D) 10 cm
- E) 1 cm

Answer: <https://biology-forums.com/index.php?topic=373299>

### Question 1597

The crests of mid-oceanic ridges \_\_\_\_\_.

- A) are heavily mantled with sediment
- B) contain active rift zones
- C) lie at depths exceeding 6 kilometers
- D) are geologically old features

Answer: <https://biology-forums.com/index.php?topic=373731>

### Question 1598

What is the inert gas, daughter product of the radioactive isotope, K-40?

Answer: <https://biology-forums.com/index.php?topic=373589>

### Question 1599

You are walking along a rugged coastline in British Columbia, Canada. As the tide goes out you realize there is a beautiful flat surface that is nearly as smooth as a highway and underlain by 1-2cm of gravel sitting on solid rock. The tide has exposed a \_\_\_\_\_.

- A) sea stack
- B) spit
- C) tombolo
- D) wave-cut platform

Answer: <https://biology-forums.com/index.php?topic=373880>

### Question 1600

How do calcareous oozes form?

- A) The particles settle out from calcite-rich turbidity currents at depths greater than 15,000 feet.
- B) The particles are precipitated by bottom-dwelling organisms.
- C) The particles are precipitated in the water column below the depth of sunlight penetration and then sink to the bottom.
- D) The particles are precipitated in warm surface waters and sink to the bottom.

Answer: <https://biology-forums.com/index.php?topic=373739>

### Question 1601

Shields and stable platforms are typically found in the interior regions of a continent.

A) [b]True[/b]

B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372570>

### Question 1602

A very long-lived magma source located deep in the mantle is called a \_\_\_\_\_.

A) magma welt

B) hot spot

C) basalt spout

D) melt well

Answer: <https://biology-forums.com/index.php?topic=373276>

### Question 1603

Ozone is important to humans because it \_\_\_\_\_.

A) absorbs ultraviolet radiation which is harmful to humans

B) is a pollutant that is harmful to humans

C) absorbs infrared radiation which is harmful to humans

D) reflects solar rays that would cause global warming

E) passes solar rays that would maintain our present climate range

Answer: <https://biology-forums.com/index.php?topic=373940>

### Question 1604

If the earth were the center of the universe and the moon, planets, and sun all moved around the earth, logic would say that all of these celestial objects should move in the same direction across the sky, and relative to the celestial background. The sun and moon both follow this pattern, but the other planets have periods of retrograde motion. How did the Ptolemaic model explain retrograde motion and how is it more easily explained by the heliocentric model.

Answer: <https://biology-forums.com/index.php?topic=374392>

### Question 1605

Because deep ocean circulation is driven largely by variations in water temperature and salinity, it is also called \_\_\_\_\_ circulation.

Answer: <https://biology-forums.com/index.php?topic=373917>

### Question 1606

Haiti is a mountainous island nation that has terrible problems with landslides. Which of the following explanations would best explain the problem?

A) The corrupt government has made poor roads subject to slope failure.

B) The area is hit by numerous tropical cyclones.

C) Most of the forests have been cut down for charcoal, leaving barren slopes subject to mass wasting during heavy tropical rainstorms and earthquakes.

D) Climate change has increased weathering rates on the island.

Answer: <https://biology-forums.com/index.php?topic=372942>

### Question 1607

Which of the following is the most useful measure of water vapor in the air?

A) dew point

B) temperature

C) air pressure

D) relative humidity

E) mixing ratio

Answer: <https://biology-forums.com/index.php?topic=374018>

### Question 1608

The old fashioned incandescent light bulb produces yellowish colored light by heating tungsten to a very high temperature and the tungsten radiates light peaking in the yellowish-white range. If you wanted a more blue light that was brighter, what would you need to do with a simple filament light bulb?

A) You would have to add a layer of some other material that would absorb the longer wavelengths of light.

B) You would have to add more electrical current to raise the filament to a higher temperature, which would make it burn out faster.

- C) You would have to make the filament thicker and add more current to make it glow brighter (for example, a 75w vs 40w bulb).  
D) You couldn't do this; it isn't possible.

Answer: <https://biology-forums.com/index.php?topic=374478>

### Question 1609

Should scientists be encouraged to make short term earthquake predictions even though the current methods for such predictions are very unreliable?

Answer: <https://biology-forums.com/index.php?topic=373366>

### Question 1610

Which of the following organisms would be most likely to be preserved in the geologic record?

- A) the bones of a dinosaur that lived on semi-arid plains  
B) a tree  
C) a clam with a thick calcite shell that lived on a mudflat  
D) a mussel that clings to rock outcrops in the surf zone

Answer: <https://biology-forums.com/index.php?topic=373549>

### Question 1611

Obsidian exhibits a(n) \_\_\_\_\_ texture.

Answer: <https://biology-forums.com/index.php?topic=372879>

### Question 1612

If you heat a jar with water in it, the amount of water vapor that will go into the air in order to reach saturation will \_\_\_\_\_.

- A) lower the temperature of the water  
B) decrease in amount  
C) increase in amount  
D) raise the temperature of the water  
E) Everything will stay the same.

Answer: <https://biology-forums.com/index.php?topic=374013>

### Question 1613

Briefly describe some possible future changes in the shape and size of the African Plate.

Answer: <https://biology-forums.com/index.php?topic=373294>

### Question 1614

Which of the following is not a physical weathering process?

- A) tree root growth  
B) rocks reacting with organic acids from plants  
C) salt crystallization  
D) frost wedging

Answer: <https://biology-forums.com/index.php?topic=372893>

### Question 1615

Big Bang Theory suggests that prior to the Big Bang, the universe was \_\_\_\_\_.

- A) nothing  
B) in a very hot and massive state  
C) a collapsed supernova  
D) a giant neutron star

Answer: <https://biology-forums.com/index.php?topic=374586>

### Question 1616

Isotherms, lines of equal temperature, are commonly used to \_\_\_\_\_.

- A) compare temperature variations over a large area  
B) show how temperature changes with time  
C) compare temperatures over a large area  
D) compare temperatures in different regions  
E) compare temperature variations in different regions

Answer: <https://biology-forums.com/index.php?topic=373982>

### Question 1617

Which term describes a soil formed by weathering of the underlying bedrock?

- A) transported
- B) relict
- C) transformational
- D) residual

Answer: <https://biology-forums.com/index.php?topic=372913>

### Question 1618

Antarctica became glaciated because \_\_\_\_\_.

- A) it moved to a position over the south pole
- B) global climate changed with the formation of the Himalayan Mountains
- C) ocean circulation changed with the southward movement of South America
- D) ocean circulation changed with the northward movement of South America
- E) a meteorite impact changed the earth's tilt axis

Answer: <https://biology-forums.com/index.php?topic=373634>

### Question 1619

In the Northern Hemisphere, winds associated with a high pressure system blow \_\_\_\_\_.

- A) clockwise and toward the center
- B) counterclockwise and outward from the center
- C) counterclockwise and toward the center
- D) clockwise and outward from the center

Answer: <https://biology-forums.com/index.php?topic=374121>

### Question 1620

Hurricane Sandy produced some of the greatest destruction along the New Jersey coast in communities situated along narrow strips of land between the beach and a coastal lagoon to the west. These communities were vulnerable because they were built on low-lying terrane of \_\_\_\_\_.

- A) spits and tombolos
- B) a wave-cut platform
- C) an eroding sea cliff
- D) a barrier island

Answer: <https://biology-forums.com/index.php?topic=373883>

### Question 1621

Why has Doppler radar been very valuable in preventing loss of life by tornadoes?

- A) It can "see through" heavy rain and directly image tornadoes embedded in thunderstorms with heavy rain.
- B) It can detect hail moving through the thunderstorm, allowing hail forecasts and its association with tornadoes.
- C) It can detect the speed of a thunderstorm to allow accurate forecasting of arrival time of a tornado and its track.
- D) It can detect development of thunderstorm rotation and mesocyclone formation associated with tornadoes.

Answer: <https://biology-forums.com/index.php?topic=374204>

### Question 1622

The \_\_\_\_\_ forms the relatively cool, brittle tectonic plates.

- A) astrosphere
- B) eosphere
- C) asthenosphere
- D) lithosphere

Answer: <https://biology-forums.com/index.php?topic=372511>

### Question 1623

A worm would stand a poor chance of being fossilized because \_\_\_\_\_.

- A) worms contain no carbon-14
- B) worms have been rare during the geologic past
- C) worms have no hard parts
- D) all of these

Answer: <https://biology-forums.com/index.php?topic=373539>

### Question 1624

Hydrothermal vents provide a unique deep sea environment that supports abundant life because \_\_\_\_\_.

- A) food carried in the hydrothermal fluids provides a hospitable environment to support abundant life

- B) the hydrothermal vents support photosynthesis so there is abundant food
- C) the heat from the hydrothermal vents provides a more hospitable environment to support life
- D) the density of the seawater is less and this allows organisms more mobility

Answer: <https://biology-forums.com/index.php?topic=373805>

### Question 1625

carbon dioxide ozone nitrous oxide methane

Answer: <https://biology-forums.com/index.php?topic=374293>

### Question 1626

Oceans cover slightly less than half of the earth's surface.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372556>

### Question 1627

Detrital sediments would predominate in all of the following environments except \_\_\_\_\_.

- A) river floodplain
- B) delta
- C) swamp
- D) salt flat

Answer: <https://biology-forums.com/index.php?topic=372735>

### Question 1628

Unconformities which represent a break in the geologic record of deposition are important because \_\_\_\_\_.

- A) they cannot be mapped
- B) they represent a period of major activity
- C) they give an indication of sea level rise within an ocean basin
- D) the fossils found in the unconformities can be used to correlate global time period

Answer: <https://biology-forums.com/index.php?topic=373524>

### Question 1629

The most abundant chemical sedimentary rock is \_\_\_\_\_.

- A) rock salt
- B) dolomite
- C) chert
- D) limestone

Answer: <https://biology-forums.com/index.php?topic=372737>

### Question 1630

The \_\_\_\_\_ is an example of an active, continent-continent collision.

- A) westward movement of the South American plate over the Nazca plate
- B) Arabian Peninsula slamming into North Africa under the Red Sea
- C) northern movement of Baja California and a sliver of western California toward the Hawaiian Islands
- D) northward movement of India into Eurasia

Answer: <https://biology-forums.com/index.php?topic=373261>

### Question 1631

Jupiter contains a number of small moons that are thought to be captured comets or material ejected by collisions with larger objects. What is the evidence for this theory?

- A) Their orbits are highly elliptical, off the plane of the ecliptic, and many are retrograde, which is unlikely for satellite formed during planetary accretion.
- B) Analyses from spacecraft show they have compositions completely different than Jupiter or its moons.
- C) Spacecraft have sampled them, and they are known to be comets.
- D) They are too big to have been formed during planetary accretion.

Answer: <https://biology-forums.com/index.php?topic=374431>

### Question 1632

A \_\_\_\_\_ stream pattern is developed only on growing mountains like volcanoes or where the land surface is tectonically doming upward.

- A) boreal
- B) trellis
- C) dendritic
- D) radial

Answer: <https://biology-forums.com/index.php?topic=373052>

### Question 1633

The lowest elevation limiting stream erosion is called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373131>

### Question 1634

Interstellar matter is composed primarily of \_\_\_\_\_.

- A) oxygen
- B) dust
- C) ions
- D) helium
- E) hydrogen

Answer: <https://biology-forums.com/index.php?topic=374545>

### Question 1635

The planets, Moon, and the Sun lie along nearly the same plane and therefore move along the same region of the sky that is called the \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374388>

### Question 1636

Although it is relatively common, limestone is an economically important rock type because its major constituent mineral, \_\_\_\_\_, is used in the production of \_\_\_\_\_.

- A) halite, halogen
- B) calcite, cement
- C) calcite, calcium
- D) halite, salt

Answer: <https://biology-forums.com/index.php?topic=372620>

### Question 1637

Electrically neutral atoms have equal numbers of electrons and protons.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372659>

### Question 1638

The Tropic of Cancer and the Tropic of Capricorn were identified by the ancient Greeks as the \_\_\_\_\_.

- A) center of areas that were moderate temperature on earth
- B) center of areas that were both hot and wet
- C) edges of the world
- D) center of areas that were the hottest on earth
- E) boundaries between the moderate and hot areas on earth

Answer: <https://biology-forums.com/index.php?topic=374232>

### Question 1639

Bacteria that thrive in oxygen free environments are called \_\_\_\_\_ bacteria.

Answer: <https://biology-forums.com/index.php?topic=373690>

### Question 1640

Some elements are released from the earth's interior to the surface through a process called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373681>

### Question 1641

If you live in southwestern North America and are experiencing drought conditions, what do you hope will happen?

- A) An El Niño period will begin.
- B) The temperatures will decrease in the eastern equatorial Pacific.

C) A La Niña period will begin.  
D) Conditions will return to a normal, with neither La Niña nor El Niño.  
Answer: <https://biology-forums.com/index.php?topic=374142>

### Question 1642

The humid subtropical climate dominates the \_\_\_\_\_ United States.

- A) southwestern
- B) southeastern
- C) central
- D) western
- E) northeastern

Answer: <https://biology-forums.com/index.php?topic=374258>

### Question 1643

Briefly explain why the oceanic ridges are higher than the surrounding ocean basins?

Answer: <https://biology-forums.com/index.php?topic=373291>

### Question 1644

The \_\_\_\_\_ is the thinnest layer of the earth.

- A) outer core
- B) crust
- C) mantle
- D) inner core

Answer: <https://biology-forums.com/index.php?topic=372510>

### Question 1645

Which planet rotates the opposite direction it revolves around the sun?

- A) Mars
- B) Earth
- C) Mercury
- D) Venus

Answer: <https://biology-forums.com/index.php?topic=374424>

### Question 1646

When two plates move together, lithosphere is \_\_\_\_\_.

- A) melted
- B) created
- C) destroyed
- D) not changed

Answer: <https://biology-forums.com/index.php?topic=373248>

### Question 1647

Fast moving currents of air found near the top of the troposphere are called \_\_\_\_\_.

- A) jet streams
- B) mesocyclones
- C) chinooks
- D) El Niño

Answer: <https://biology-forums.com/index.php?topic=374132>

### Question 1648

What process involves identifying and matching rocks of similar ages in different areas?

Answer: <https://biology-forums.com/index.php?topic=373587>

### Question 1649

High clouds that form delicate veil-like patches or extended wispy fibers are termed \_\_\_\_\_.

- A) cirrus
- B) cumulus
- C) alto

D) stratus

Answer: <https://biology-forums.com/index.php?topic=374049>

### Question 1650

Major mountain belts on the earth are \_\_\_\_\_.

- A) older than smaller mountain belts because they have had enough time to grow large
- B) made of granite because it is low density and allows for maximum growth
- C) over 10 km high
- D) located around the Pacific Ocean

Answer: <https://biology-forums.com/index.php?topic=372525>

### Question 1651

Assume that you have just examined several flat-lying sedimentary layers. After much study you determine that there is a considerable span of time for which no sedimentary rock layer exists at this site. You have just discovered a(n) \_\_\_\_\_.

- A) angular unconformity
- B) disconformity
- C) series of conformable strata
- D) example of cross-cutting relationships

Answer: <https://biology-forums.com/index.php?topic=373538>

### Question 1652

For the given conditions, what would happen to the relative humidity value if the temperature increased from 25°C?

- A) It would decrease.
- B) It would increase.
- C) It would remain the same.
- D) It depends on the dew point temperature.

Answer: <https://biology-forums.com/index.php?topic=374019>

### Question 1653

When viewing the planets, Mars appears to move backwards, or retrograde, because \_\_\_\_\_.

- A) it is rotating around the sun faster than the earth's rotation
- B) it is rotating at approximately the same speed but its orbit is more elliptical than the earth's rotation
- C) it is rotating at approximately the same speed but its orbit is more circular than earth's orbit
- D) it is rotating around the sun slower than the earth's rotation

Answer: <https://biology-forums.com/index.php?topic=374329>

### Question 1654

A large body of air that is characterized by a homogeneity of temperature and moisture at any given level is a(n) \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374217>

### Question 1655

Evidence for the existence of dark matter includes \_\_\_\_\_.

- A) the observation that stars near the center of galaxies do not rotate as fast as expected
- B) the observation that the universe is not expanding as fast as predicted by Big Bang Theory
- C) the observation that Mercury rotates about the Sun faster than Pluto
- D) the observation that the universe appears to be slowing down

Answer: <https://biology-forums.com/index.php?topic=374588>

### Question 1656

The famous destruction of the Roman city of Pompeii was produced by \_\_\_\_\_.

- A) a large cinder cone burying the city in tephra
- B) a volcanic mudflow from Mt. Vesuvius that buried the people and the city
- C) a composite volcano erupted lava that buried the city, fossilizing people who were overridden by the fast moving flows
- D) a pyroclastic eruption from a composite volcano that buried the city in ash and smothered the people living there

Answer: <https://biology-forums.com/index.php?topic=373406>

### Question 1657

Which of the following is not considered a form of electromagnetic radiation?

- A) gamma rays
- B) radio waves
- C) gravity
- D) X-rays
- E) visible light

Answer: <https://biology-forums.com/index.php?topic=374464>

### Question 1658

The most common Precambrian fossils are \_\_\_\_\_, layered mounds of calcium carbonate.

- A) prokaryotes
- B) stromatolites
- C) trilobites
- D) eukaryotes
- E) chert

Answer: <https://biology-forums.com/index.php?topic=373653>

### Question 1659

Most geologists think the elevation of mountains above sea level is limited by earth's gravity because \_\_\_\_\_.

- A) thickening of the crust in mountain belts produces a weak deep crust the spreads by gravity collapse, limiting the elevation
- B) rock cliffs are subject to gravity failure and can only be about 1km high
- C) the earth's mantle is too weak to support the load of large mountains
- D) rocks can never reach escape velocity

Answer: <https://biology-forums.com/index.php?topic=373489>

### Question 1660

What is the modern explanation for "guest stars" that appear in the night sky and then disappear?

- A) alignments of stars that make them suddenly appear bright
- B) comets passing close to Earth
- C) unusually bright planets produced when they pass closest to earth
- D) stars that go Nova or Supernova and appear as bright objects during the event

Answer: <https://biology-forums.com/index.php?topic=374326>

### Question 1661

Which of the following is a part of the earth system that could be significantly impacted by climate and climate change?

- A) development of metamorphic minerals
- B) formation of volcanic islands
- C) deposition of sedimentary rocks
- D) igneous intrusions
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=374230>

### Question 1662

To determine whether a celestial body is approaching or receding from Earth, astronomers employ \_\_\_\_\_.

- A) Einstein's equation
- B) high speed radar
- C) the Stefan-Boltzmann law
- D) the Doppler principle
- E) telescopic imaging

Answer: <https://biology-forums.com/index.php?topic=374475>

### Question 1663

Thermoclines in the ocean are best developed at \_\_\_\_\_.

- A) higher latitudes
- B) lower latitudes
- C) both high and low latitudes
- D) regions close to continents

Answer: <https://biology-forums.com/index.php?topic=373789>

### Question 1664

The two most abundant gases in Earth's atmosphere are \_\_\_\_\_ and \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374452>

### Question 1665

The most explosive events to occur on the Sun are \_\_\_\_\_.

- A) solar flares
- B) sunspots
- C) umbras
- D) solar winds
- E) filaments

Answer: <https://biology-forums.com/index.php?topic=374500>

### Question 1666

Science is based on the assumption that nature behaves in a consistent and predictable manner.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372547>

### Question 1667

The study of Earth's atmosphere is known as \_\_\_\_\_.

- A) cosmology
- B) oceanography
- C) astronomy
- D) meteorology

Answer: <https://biology-forums.com/index.php?topic=372477>

### Question 1668

The strong tendency of certain minerals to break along smooth, parallel planes is known as \_\_\_\_\_.

- A) cracking luster
- B) streak
- C) cleavage
- D) habit

Answer: <https://biology-forums.com/index.php?topic=372607>

### Question 1669

Igneous rocks are classified on the basis of what two main characteristics?

Answer: <https://biology-forums.com/index.php?topic=372878>

### Question 1670

The thin, outer layer of Earth, from 7 to 40 km in thickness, is called the \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=372575>

### Question 1671

During the \_\_\_\_\_ era, the westward-moving North American plate began to override the Pacific plate, eventually causing the tectonic activity that ultimately formed the mountains of western North America.

- A) Paleozoic
- B) Precambrian
- C) Cenozoic
- D) Mesozoic
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=373645>

### Question 1672

The \_\_\_\_\_ means "the Sun in the making."

- A) sol
- B) protosun
- C) solar disk
- D) presun
- E) nebular Sun

Answer: <https://biology-forums.com/index.php?topic=373610>

### Question 1673

corona photosphere chromosphere sunspots

Answer: <https://biology-forums.com/index.php?topic=374521>

### Question 1674

Which of the following should have the steepest pressure gradient?

- A) middle-latitude cyclone
- B) hurricane
- C) tornado
- D) All should have equally steep pressure gradients.

Answer: <https://biology-forums.com/index.php?topic=374199>

### Question 1675

The average composition of rocks comprising a large composite cone or stratovolcano is similar to a(n) \_\_\_\_\_ magma.

- A) rhyolitic
- B) andesitic
- C) ultramafic
- D) basaltic

Answer: <https://biology-forums.com/index.php?topic=373394>

### Question 1676

If you want to buy a house in an area and you are worried there may be an earthquake hazard, who would be the best person to ask for advice on this hazard?

- A) an astrologer
- B) a civil engineer
- C) a physicist
- D) a geologist

Answer: <https://biology-forums.com/index.php?topic=372485>

### Question 1677

Which of the following is not a significant factor contributing to the damage caused by an earthquake?

- A) the duration of the vibrations
- B) the types of ground materials that are built on in the region
- C) the construction techniques and materials used in the region
- D) the proximity to a plate boundary

Answer: <https://biology-forums.com/index.php?topic=373329>

### Question 1678

The primary agent of contact metamorphism is \_\_\_\_\_.

- A) folding
- B) stress
- C) heat
- D) strain

Answer: <https://biology-forums.com/index.php?topic=372834>

### Question 1679

Aerosols are \_\_\_\_\_ in terms of global change due to greenhouse gases in the atmosphere.

- A) neither a positive nor a negative feedback mechanism
- B) a negative feedback mechanism
- C) a reflector
- D) a positive feedback mechanism
- E) an absorber

Answer: <https://biology-forums.com/index.php?topic=374284>

### Question 1680

A(n) \_\_\_\_\_ is likely to host a waterfall or steep rapids today.

- A) outwash plain
- B) horn peak

- C) hanging valley
- D) striated drumlin

Answer: <https://biology-forums.com/index.php?topic=373181>

### Question 1681

Calderas range in size from less than 1km to tens of kilometers across. What do they all have in common?

- A) They all form from collapse of composite volcanos following explosive eruptions; Crater lake is an example.
- B) They all form in explosive eruptions.
- C) They all form by subsidence of the caldera center due to withdrawal of magma from below.
- D) They all are formed in rhyolitic volcanos and have associated eruptions of ash flow tuff.

Answer: <https://biology-forums.com/index.php?topic=373417>

### Question 1682

Angles are important when looking at which physical properties of minerals?

- A) color streaks
- B) bands of different luster
- C) conchoidal fractures
- D) cleavages

Answer: <https://biology-forums.com/index.php?topic=372611>

### Question 1683

When a mineral fractures along a cleavage plane, what does this suggest about the crystal structure of the mineral?

- A) The atoms are arranged in a simple orderly arrangement with uniform bonding.
- B) The crystal structure contains planes along which chemical bonding is much weaker than other directions.
- C) The crystal contains warped planes called twin planes that weaken the crystal structure and allow it fracture along a planar surface, causing cleavage.
- D) The crystal grows only planar faces that become weak zones that form cleavage.

Answer: <https://biology-forums.com/index.php?topic=372615>

### Question 1684

Strike-slip faults are common along \_\_\_\_\_ plate boundaries.

Answer: <https://biology-forums.com/index.php?topic=373355>

### Question 1685

The Southern Cross is a Southern Hemisphere constellation that is as famous the big dipper in the Northern Hemisphere because of the brightness of the stars. It has a Southern Hemisphere declination slightly higher than the big dipper's Northern Hemisphere declination. Is it visible anywhere in the United States?

- A) Yes, it is visible in Hawaii during the summer months.
- B) Yes, it is visible in most of the southern tier of states during summer months.
- C) Yes, it is visible during much of the year, but it is obscured by the full moon.
- D) No, it is not visible anywhere in the U.S. because the entire country is too far north.

Answer: <https://biology-forums.com/index.php?topic=374351>

### Question 1686

\_\_\_\_\_ refers to the change in temperature with depth in the ocean.

Answer: <https://biology-forums.com/index.php?topic=373819>

### Question 1687

tsunami fire liquefaction amplitude

Answer: <https://biology-forums.com/index.php?topic=373351>

### Question 1688

The Peninsular terrane is now part of the crust of North America in southern Alaska. The dominant rock type in this terrane is intrusive igneous rock that ranges in composition from gabbro to granite and volcanic rock with a similar compositional range. Geologic evidence indicates the Peninsular terrane collided with North America during late Mesozoic time. Which of the following would be the most reasonable interpretation for the origins of the Peninsular terrane?

- A) a Mesozoic island arc
- B) a Paleozoic accretionary wedge
- C) a Mesozoic accretionary wedge

- D) a Cenozoic forearc basin
- E) a Mesozoic oceanic plateau

Answer: <https://biology-forums.com/index.php?topic=373477>

### Question 1689

Warm winds that move down the leeward side of mountains are known as \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374160>

### Question 1690

If you fall into a crevasse, what is the maximum depth you are likely to fall?

- A) 25 meters
- B) 100 meters
- C) 50 meters
- D) 10 meters

Answer: <https://biology-forums.com/index.php?topic=373174>

### Question 1691

In the science fiction book series "Red Mars, Green Mars, Blue Mars" the author spins a story of "terraforming" Mars with the formation of oceans and a breathable atmosphere by the end of the series. The author describes a scenario, however, where the inhabitants of this fictional world were able to live relatively normally on most of the world but not on Olympus Mons and the Tharsus region. Assuming you could create a breathable atmosphere as described in the books, is the description of where you might live on Mars realistic, or just spinning a yarn?

- A) No, it is absurd. Even with an atmosphere, it would be too cold to live anywhere on Mars.
- B) No, because these regions are so rugged it would be impossible to live in the Martian mountains, regardless of an atmosphere or not.
- C) No, because you could use water ice from these high altitude sites whereas there is no water at lower elevations on Mars.
- D) Yes, because Olympus Mons and the Tharsus region are higher above the Martian plains than Mt. Everest, so the air would always be dramatically thinner and colder there, even with an Earth atmosphere.

Answer: <https://biology-forums.com/index.php?topic=374422>

### Question 1692

Digging downward through a soil profile, how deep would you have to go before you found recognizable fragments of the parent rock for the soil?

- A) A
- B) B
- C) C
- D) E

Answer: <https://biology-forums.com/index.php?topic=372923>

### Question 1693

The gently sloping submerged surface extending from the shoreline toward the deep ocean is termed the \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373761>

### Question 1694

\_\_\_\_\_ organisms live on or in the ocean bottom.

- A) Benthonic
- B) Scavenging
- C) Planktonic
- D) Nektonic
- E) none of these

Answer: <https://biology-forums.com/index.php?topic=373801>

### Question 1695

To improve the resolution of radio telescopes, astronomers \_\_\_\_\_.

- A) scan the skies rapidly to detect the direction of the radio signal
- B) place the telescope in outer space
- C) group smaller telescopes in arrays, like the very large array in New Mexico
- D) make bigger telescopes

Answer: <https://biology-forums.com/index.php?topic=374492>

### Question 1696

Compaction would probably be most significant as a lithification process for \_\_\_\_\_.

- A) shale
- B) conglomerate
- C) breccia
- D) sandstone

Answer: <https://biology-forums.com/index.php?topic=372736>

### Question 1697

The half-life of carbon-14 is about 6000 years. Assume that a sample of charcoal formed by burning of living wood 15,000 years ago. How much of the original carbon-14 would remain today?

- A) between one-half and one-third
- B) between one-fourth and one-eighth
- C) between one-half and one-fourth
- D) more than one-half

Answer: <https://biology-forums.com/index.php?topic=373566>

### Question 1698

Rocks are aggregates of minerals.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372652>

### Question 1699

The first minerals to be mined were \_\_\_\_\_ and \_\_\_\_\_.

- A) lead, quartz
- B) copper, bronze
- C) flint, chert
- D) gold, silver

Answer: <https://biology-forums.com/index.php?topic=372583>

### Question 1700

Why do scientists think that lithosphere has to be destroyed somewhere on or in the earth?

- A) There is not enough lithosphere on the earth to account for what has been produced in the last 200 million years.
- B) The earth is getting smaller as the new oceanic crust cools and contracts.
- C) The moon is moving away from the earth and this would not happen if the earth had more lithosphere to increase its mass.
- D) Lithosphere is created at divergent boundaries and the earth is not getting any larger.

Answer: <https://biology-forums.com/index.php?topic=373263>

### Question 1701

\_\_\_\_\_ is an abandoned, cutoff, meander loop.

- A) A gatorback
- B) A cowhock
- C) A bulltrail
- D) An oxbow

Answer: <https://biology-forums.com/index.php?topic=373074>

### Question 1702

The two types of dry (B) climates are desert and \_\_\_\_\_.

- A) taiga
- B) highland
- C) steppe
- D) tundra

Answer: <https://biology-forums.com/index.php?topic=374254>

### Question 1703

Limestone is composed almost entirely of calcite which has the chemical formula  $\text{CaCO}_3$ . As a result, limestone is classified as \_\_\_\_\_.

- A) a mineral
- B) a rock
- C) both a mineral and a rock
- D) neither a mineral nor a rock because it is organic

Answer: <https://biology-forums.com/index.php?topic=372587>

### Question 1704

Approximately how much of the Earth's water supply is saline?

- A) 100%
- B) 43%
- C) 67%
- D) 20%
- E) 98%

Answer: <https://biology-forums.com/index.php?topic=373041>

### Question 1705

The textbook makes the point that stream transport is a mechanism for sorting material. Explain how a stream sorts rocks.

Answer: <https://biology-forums.com/index.php?topic=373142>

### Question 1706

Why do geologists use the radiometric age of meteorites as a guide to age of the solar system?

- A) The geologists are guessing because they yield some of the oldest radiometric ages.
- B) The meteorites date the time of formation of a dead planet and don't have anything to do with the age of the solar system.
- C) The meteorites have been isolated in the cold vacuum of space since their formation, so they have seen no significant heating since the time of their formation.
- D) The meteorites have compositions close to Earth materials, so we assume they formed at the same time.

Answer: <https://biology-forums.com/index.php?topic=374447>

### Question 1707

A red star is \_\_\_\_\_ our Sun.

- A) hotter and larger than
- B) hotter and smaller than
- C) colder and larger than
- D) approximately the same temperature and size as
- E) colder and smaller than

Answer: <https://biology-forums.com/index.php?topic=374558>

### Question 1708

A \_\_\_\_\_ is the icicle-like speleothem that grows down from the roof of a cavern.

- A) stalagmite
- B) stalandite
- C) slagdite
- D) stalactite

Answer: <https://biology-forums.com/index.php?topic=373116>

### Question 1709

Long oceanic mountain chains typically are characterized by \_\_\_\_\_.

- A) rocks older than 1 billion years old
- B) layers of igneous rocks
- C) granitic plutons and batholiths
- D) highly deformed sedimentary rocks

Answer: <https://biology-forums.com/index.php?topic=372529>

### Question 1710

What was the test of the Big Bang Hypothesis discussed in your text?

- A) We should be able to detect remnants of the initial heat of the universe.
- B) There should be more expansion in older galaxies than in young ones.
- C) The universe should be expanding.
- D) We should be able to model how the galaxies have moved and reconstruct the original explosion.
- E) We should be able to measure how atoms have changed through fusion since the original explosion.

Answer: <https://biology-forums.com/index.php?topic=374587>

### Question 1711

The major adaptations that made it possible for mammals to evolve into their modern forms included all of the following except \_\_\_\_\_.

- A) their brains increased in capacity
- B) they developed specialized teeth to adapt to a varied diet
- C) they developed a more efficient respiratory system
- D) they became significantly larger
- E) they developed specialized limbs to adapt to a varied life style

Answer: <https://biology-forums.com/index.php?topic=373672>

### Question 1712

Metamorphism occurs when a rock \_\_\_\_\_.

- A) experiences conditions that are similar to those that formed the rock
- B) experiences conditions that include high pressures
- C) experiences conditions that are significantly different from those that formed the rock
- D) experiences conditions that include high temperatures

Answer: <https://biology-forums.com/index.php?topic=372742>

### Question 1713

Subduction of oceanic lithosphere at the trenches can act like a bulldozer to produce \_\_\_\_\_.

- A) a strike slip fault like the San Andreas
- B) a subduction slope
- C) subduction erosion
- D) an accretionary wedge

Answer: <https://biology-forums.com/index.php?topic=373723>

### Question 1714

\_\_\_\_\_ sediment consists of shells and hard parts of marine organisms.

Answer: <https://biology-forums.com/index.php?topic=373770>

### Question 1715

How did the lunar maria most likely originate?

- A) The solar wind eroded very wide, shallow basins that filled with lunar dust.
- B) Massive, basaltic comets melted when they hit the lunar surface.
- C) Huge impact basins were nearly filled with basaltic lava flows.
- D) Huge impact craters filled with frozen carbon dioxide and dark-colored silt and dust.

Answer: <https://biology-forums.com/index.php?topic=374411>

### Question 1716

The combustion of \_\_\_\_\_ has added great quantities of carbon dioxide to the atmosphere.

- A) fossil fuels
- B) wood
- C) oxygen
- D) paper
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=374281>

### Question 1717

porosity permeability aquitard aquifer

Answer: <https://biology-forums.com/index.php?topic=373122>

### Question 1718

What group of animals were the first to leave the ocean to become the first amphibians?

- A) salamanders
- B) trilobites
- C) horn-beaked Cephalopods
- D) lobe-finned fish

Answer: <https://biology-forums.com/index.php?topic=373663>

### Question 1719

magnitude color temperature composition

Answer: <https://biology-forums.com/index.php?topic=374589>

### Question 1720

When the moon appears as a thin crescent in the evening sky, just after sunset, the lunar phase is \_\_\_\_\_.

- A) between new moon and first quarter
- B) between second and third quarter
- C) between first and second quarter
- D) new moon

Answer: <https://biology-forums.com/index.php?topic=374365>

### Question 1721

As you go up in elevation, the atmospheric pressure \_\_\_\_\_.

- A) increases
- B) decreases
- C) stays constant
- D) none of the above

Answer: <https://biology-forums.com/index.php?topic=373947>

### Question 1722

Ocean ridges form because \_\_\_\_\_.

- A) rocks bulge up in ridges along transform faults associated with the ridge
- B) they are chains of volcanos, like the Hawaiian Islands, that form along hot spots
- C) they are a broad seafloor highland formed by sea floor spreading
- D) they are submarine collisional mountain belts, forming submarine mountains that haven't yet risen from the sea floor

Answer: <https://biology-forums.com/index.php?topic=373734>

### Question 1723

Given an environmental lapse rate of 5°C/1000 m and a dry adiabatic of 10°C, what would be the temperature of unsaturated surface air after it rises to height of 2000 m if its surface temperature had been 25°C?

- A) 25°C
- B) 15°C
- C) 20°C
- D) 5°C
- E) 10°C

Answer: <https://biology-forums.com/index.php?topic=374040>

### Question 1724

The most conspicuous features on the surface of the Sun are dark areas called \_\_\_\_\_.

- A) spicules
- B) sunspots
- C) granules
- D) helium lines
- E) flares

Answer: <https://biology-forums.com/index.php?topic=374502>

### Question 1725

The basic building block of a silicate is composed of \_\_\_\_\_.

- A) 1 oxygen and 1 silicon
- B) 3 oxygens and 1 silicon
- C) 2 oxygens and 1 silicon
- D) 4 oxygens and 1 silicon

Answer: <https://biology-forums.com/index.php?topic=372625>

### Question 1726

Which of the following is not true of deep ocean trenches?

- A) They are sites where plates plunge back into the mantle.
- B) They are geologically very stable.
- C) They are long and narrow depressions.
- D) They may act as sediment traps.

Answer: <https://biology-forums.com/index.php?topic=373724>

### Question 1727

Aftershocks occur because \_\_\_\_\_.

- A) there are always small earthquakes on major faults, but we do not notice them until there is a large event that makes us aware of them
- B) seismic energy continues to build up for a period of time after a major earthquake
- C) the day after a large earthquake there are tidal forces that continue to create additional earthquakes
- D) the area surrounding a region that experienced a large earthquake needs time to adjust to the displacements on the main fault

Answer: <https://biology-forums.com/index.php?topic=373305>

### Question 1728

The change of state from a gas to a liquid is called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374078>

### Question 1729

The Platte River crosses the Nebraska sandhills and carries little silt and clay, but moves large amounts of sand. What kind of stream would you predict from this characteristic?

- A) meandering stream
- B) bedrock stream
- C) braided stream
- D) none of the above

Answer: <https://biology-forums.com/index.php?topic=373077>

### Question 1730

Metamorphism can affect only sedimentary rocks.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372874>

### Question 1731

A stream flowing into a sinkhole is called a(n) \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373139>

### Question 1732

When an active cold front overtakes a warm front, \_\_\_\_\_.

- A) the fronts cancel one another out
- B) an occluded front forms
- C) cloud formation ceases
- D) a stationary front is created

Answer: <https://biology-forums.com/index.php?topic=374183>

### Question 1733

By the close of the Paleozoic, all the continents had fused into the single super continent of \_\_\_\_\_.

- A) Europa
- B) Laurasia
- C) Pangaea
- D) Gondwanaland
- E) Appalachia

Answer: <https://biology-forums.com/index.php?topic=373647>

### Question 1734

As magma approaches the surface, water contributes to the explosive potential of the eruption because \_\_\_\_\_.

- A) water has a large heat capacity, which allow it to keep the magma hot enough to explode
- B) water has a lower density in its solid phase than its liquid phase which makes it explode when pressure decreases
- C) water dissociates to hydrogen and oxygen at high temperatures but reacts violently at decreasing pressures to produce explosive eruptions
- D) water dissolved in magma flashes to steam as pressure decreases, and the volume increase leads to an explosive potential

Answer: <https://biology-forums.com/index.php?topic=373377>

### Question 1735

A \_\_\_\_\_ flood occurs when heavy rain strikes a mountainous area.

- A) quick
- B) monsoon
- C) flash
- D) regional

Answer: <https://biology-forums.com/index.php?topic=373098>

### Question 1736

tornado cyclone anticyclone hurricane

Answer: <https://biology-forums.com/index.php?topic=374215>

### Question 1737

Ocean floor topography can be estimated from space using \_\_\_\_\_.

- A) laser beams that penetrate to the sea floor
- B) radar pulses that bounce off the ocean surface
- C) high resolution measurements of the earth's magnetic field
- D) powerful sound waves that echo to the satellite

Answer: <https://biology-forums.com/index.php?topic=373710>

### Question 1738

The five parts of the climate system are the \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, \_\_\_\_\_, and \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374294>

### Question 1739

Sinkholes and karst topography are a clear indication that \_\_\_\_\_.

- A) the area has been subjected to past meteorite bombardments and groundwater is moving through the fractured rock
- B) the groundwater is moving through cracks in the rock
- C) the groundwater is moving through a limestone and forming caves that periodically collapse
- D) there is nothing unusual; these features occur everywhere there is fast motion of groundwater in the subsurface

Answer: <https://biology-forums.com/index.php?topic=373104>

### Question 1740

In elastic rebound theory, what must occur to produce an earthquake?

- A) The ground needs to absorb enough water to lubricate the surface of the fault.
- B) Rocks must break in order to produce slip on a fault.
- C) Tidal forces need to be at a maximum to increase the energy applied to the fault.
- D) Enough stress must build up over time on a fault to overcome friction.

Answer: <https://biology-forums.com/index.php?topic=373301>

### Question 1741

In the interior of continents the earth's crust is typically about 40 km thick and the elevation is near sea level. In the Himalayas the crust is more than 60km thick. Isostasy says crust thicker than this average should produce elevated terrain (mountains), so why isn't the elevation of the Himalayas 20km?

Answer: <https://biology-forums.com/index.php?topic=373510>

### Question 1742

Which mineral reacts readily with cool, dilute hydrochloric acid to produce visible bubbles of carbon dioxide gas?

- A) plagioclase
- B) calcite
- C) quartz
- D) gypsum

Answer: <https://biology-forums.com/index.php?topic=372605>

### Question 1743

Abrasion and plucking generally involve what part of a glacier?

- A) the snout zone
- B) the bottom or base
- C) the internal flowage zone
- D) the surface brittle zone

Answer: <https://biology-forums.com/index.php?topic=373179>

### Question 1744

Most granitic batholiths are generated \_\_\_\_\_.

- A) along hot spot chains beneath continents, like a welder cutting through the continent to make a linear belt of intrusive granites
- B) as intrusions beneath composite volcanos along convergent plate margins
- C) where spreading ridges occur beneath continents
- D) along transform faults, which accounts for their linear geographic distribution

Answer: <https://biology-forums.com/index.php?topic=373432>

### Question 1745

If the glacial budget is balanced (accumulation equals wastage), then \_\_\_\_\_.

- A) the terminus of the glacier is stationary
- B) the ice front will retreat
- C) the ice front will advance
- D) the glacier will not flow downhill

Answer: <https://biology-forums.com/index.php?topic=373177>

### Question 1746

The force that generates wind is \_\_\_\_\_.

- A) gravity force
- B) pressure gradient force
- C) centrifugal force
- D) Coriolis force

Answer: <https://biology-forums.com/index.php?topic=374104>

### Question 1747

\_\_\_\_\_ wedging occurs when warm air is forced over cooler air.

Answer: <https://biology-forums.com/index.php?topic=374082>

### Question 1748

Why is the mass of the earth important to maintain life as we know it?

- A) If we had more or less mass, the earth would not have plate tectonics and would be covered entirely by water.
- B) If the earth's mass were significantly different, we would be bombarded by cosmic rays that would strip away our atmosphere.
- C) If the earth's mass were greater, we would be bombarded by meteorites and if it were smaller, we would not be able to hold the moon in orbit.
- D) If it had more or less mass, the atmosphere would be very different with either too much ammonia and methane or too little oxygen and water.

Answer: <https://biology-forums.com/index.php?topic=373598>

### Question 1749

On a weather map, \_\_\_\_\_ fronts are shown by a line with triangular points on one side.

- A) warm
- B) stationary
- C) occluded
- D) cold

Answer: <https://biology-forums.com/index.php?topic=374177>

### Question 1750

Climate models indicate that \_\_\_\_\_ is(are) one of the strongest indications of global warming.

- A) the hole in the ozone in Australia
- B) retreating glaciers in Alaska
- C) loss of sea ice in the Arctic
- D) El Niño
- E) melting of Antarctica

Answer: <https://biology-forums.com/index.php?topic=374289>

### Question 1751

pyroxene plagioclase quartz olivine

Answer: <https://biology-forums.com/index.php?topic=372842>

### Question 1752

Cepheid Variables are stars whose brightness varies in a predictable manner so that the absolute magnitude of the star can be determined, and this allows the \_\_\_\_\_ of the star to be determined.

- A) size
- B) direction of motion
- C) composition
- D) velocity
- E) distance from Earth

Answer: <https://biology-forums.com/index.php?topic=374540>

### Question 1753

Long term earthquake prediction is based on \_\_\_\_\_.

- A) measurements of strain accumulation
- B) the assumption that large faults break in a cyclical manner
- C) measurements of the plate motions and rate of stress accumulation
- D) observations of things like animal behavior, radon gas emissions, and changes in topography

Answer: <https://biology-forums.com/index.php?topic=373338>

### Question 1754

What limits productivity in polar regions?

- A) The thermocline acts as a barrier to mixing of surface and deep waters.
- B) high density of the surface waters
- C) the lack of sunlight year round
- D) low temperatures of the surface waters
- E) all of the above

Answer: <https://biology-forums.com/index.php?topic=373811>

### Question 1755

Ocean crust is denser than continental crust because ocean crust is \_\_\_\_\_.

- A) composed primarily of granite
- B) thinner than continental crust
- C) composed primarily of basalt
- D) thicker than continental crust

Answer: <https://biology-forums.com/index.php?topic=372523>

### Question 1756

The largest known galaxies are \_\_\_\_\_.

- A) round
- B) elliptical
- C) spiral
- D) barred spiral
- E) irregular

Answer: <https://biology-forums.com/index.php?topic=374579>

### Question 1757

Where are the most active volcanoes in the world?

- A) Washington State, in the United States
- B) Hawaii
- C) Italy
- D) Mexico

Answer: <https://biology-forums.com/index.php?topic=373397>

### Question 1758

Soil classifications, like biological classifications, use a taxonomy. The first syllable(s) gives a descriptive term and last syllable is \_\_\_\_\_.

- A) soil
- B) solt
- C) drt
- D) sol

Answer: <https://biology-forums.com/index.php?topic=372925>

### Question 1759

lithification cementation weathering compaction

Answer: <https://biology-forums.com/index.php?topic=372845>

### Question 1760

Think about the correlation of the celestial coordinate system, the tilt of the earth's axis, and the positions on Earth. If you are an observer in the Southern Hemisphere, 2 degrees north of the Tropic of Capricorn, What time of year will you be able to see the North Star?

- A) at the Northern Hemisphere summer solstice, around June 21
- B) on the Southern Hemisphere vernal equinox
- C) on the Southern Hemisphere summer solstice, around Dec. 21
- D) Never; you can never see the North Star from the Southern Hemisphere.

Answer: <https://biology-forums.com/index.php?topic=374350>

### Question 1761

Which parts of Pangaea broke apart first?

- A) Europe and Africa
- B) Africa and Australia
- C) The United States and Africa
- D) Europe and the United States

Answer: <https://biology-forums.com/index.php?topic=373271>

### Question 1762

\_\_\_\_\_ has the great, dark spot on its surface.

- A) Mars
- B) Venus
- C) Uranus
- D) Jupiter

Answer: <https://biology-forums.com/index.php?topic=374427>

### Question 1763

Light is an electromagnetic wave, meaning an electric field and magnetic field travel together, oscillating at specific frequency. All metals are electrical conductors and all metals are also opaque to light. Why might this be, knowing the nature of light waves?

- A) The electric field of the wave excites electrons, which move through the solid conductor and dissipate the electric field, stopping the light wave.
- B) The free electrons in the metal capture the light.
- C) The metal atoms absorb the light into their nucleus.
- D) The magnetic field polarizes iron, so all metals have a similar property, so when the magnetic field interacts with atoms, it dissipates the wave.

Answer: <https://biology-forums.com/index.php?topic=374471>

### Question 1764

Why is wind less effective than moving water at picking up and moving materials?

- A) Air is less dense than water
- B) Air moves faster than water
- C) Air moves slower than water
- D) Air does not move very far

Answer: <https://biology-forums.com/index.php?topic=373205>

### Question 1765

The two primary motions of the Earth are \_\_\_\_\_ and \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374387>

### Question 1766

Highly impermeable layers such as compacted clay or shale are known as \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373133>

### Question 1767

Wood floats in water and rocks sink; thus, the density of \_\_\_\_\_ is the lower of the two.

Answer: <https://biology-forums.com/index.php?topic=372687>

### Question 1768

oxygen sulfur aluminum iron

Answer: <https://biology-forums.com/index.php?topic=372651>

### Question 1769

A comet is visible because \_\_\_\_\_.

- A) it is composed of white material, mostly ice
- B) it is a very large object that get stretched out by interaction with the Sun's gravity
- C) it is a small object, but it ejects gas and dust that at is dispersed by the solar wind to form a tail thousands of km long
- D) it boils off steam that streams outward along the comet's path

Answer: <https://biology-forums.com/index.php?topic=374446>

### Question 1770

A sandbar that completely crosses a bay, sealing it off from the open ocean, is a \_\_\_\_\_.

- A) coastal barrier
- B) tombolo
- C) sea stack
- D) none of these

Answer: <https://biology-forums.com/index.php?topic=373875>

### Question 1771

\_\_\_\_\_ are erosional features produced by valley/alpine glaciers.

- A) Eskers
- B) Moraines
- C) Cirques
- D) Drumlins

Answer: <https://biology-forums.com/index.php?topic=373180>

### Question 1772

Why are raindrops larger than 5 millimeters rare?

- A) If they form larger than 5 millimeters then they will reach the ground as snow or hail instead of rain because they cannot melt completely.
- B) The frictional drag from falling is greater than the surface tension that holds the drops together when they get larger than 5 millimeters.
- C) There is no process to form large raindrops in clouds.
- D) Because they start as snowflakes, they must grow much larger than 5 millimeters while falling from a cloud without sublimating.

Answer: <https://biology-forums.com/index.php?topic=374067>

### Question 1773

A volcanic deposit comprised of red to black lapilli-sized pyroclastic material associated with pahoehoe lava flows was probably deposited on \_\_\_\_\_.

- A) a cinder cone
- B) a shield volcano
- C) a large composite volcano
- D) a satellite shield volcano on a rhyolitic caldera

Answer: <https://biology-forums.com/index.php?topic=373391>

### Question 1774

Water runoff is a major factor in soil erosion, what is a common land use practice on slopes to minimize soil erosion?

- A) adding a rock mulch layer to slow water runoff
- B) planting row crops with rows running downhill, to minimize channelization of flow
- C) planting trees
- D) terracing slopes to stop downslope runoff and rill formation

Answer: <https://biology-forums.com/index.php?topic=372928>

### Question 1775

Orographic lifting is related to mountain barriers, and it is often associated with \_\_\_\_\_.

- A) desert conditions on the leeward side of the mountains and excessive rainfall on the windward side
- B) excessive rainfall on both sides of the mountains
- C) desert conditions on the windward side of the mountains and excessive rainfall on the leeward side.
- D) desert conditions on both sides of the mountains

Answer: <https://biology-forums.com/index.php?topic=374030>

### Question 1776

Valleys that lead from the continental shelf into deeper waters are known as \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=373762>

### Question 1777

Stars that are composed of matter in which electrons have combined with protons are called \_\_\_\_\_ stars.

Answer: <https://biology-forums.com/index.php?topic=374598>

### Question 1778

In the interior of continents the earth's crust is typically about 40km thick and the elevation is near sea level. In an area where the crust is 20km thick, isostasy would suggest the elevation in this area would be \_\_\_\_\_ unless the density changes from one area to the other.

- A) slightly above sea level
- B) high mountains
- C) below sea level
- D) near sea level

Answer: <https://biology-forums.com/index.php?topic=373491>

### Question 1779

Upper air winds \_\_\_\_\_.

- A) are generally faster than surface winds
- B) are unaffected by the Coriolis force
- C) are greatly influenced by friction
- D) both A and B

Answer: <https://biology-forums.com/index.php?topic=374111>

### Question 1780

In the Cretaceous period of earth history there is clear evidence that the climate was much warmer than today. It was so warm that areas near the pole had tropical vegetation like palm trees, and there was almost certainly no sea ice and glaciers probably only existed at very high altitude. This produced widespread anoxia (stagnant, no-oxygen condition) on the floor of the oceans. From your knowledge of ocean circulation, which of the following explanations could account for the anoxia?

- A) The lack of polar sea ice stopped any thermohaline deep circulation in the oceans, stratifying the water column to produce anoxia in the deep sea.
- B) The greenhouse affect made planktonic algae grow so fast that they filled the ocean with algae, stagnating the ocean.
- C) The greenhouse affect led to so much CO<sub>2</sub> in the atmosphere that animals all died from lack of oxygen, stagnating the oceans.
- D) The water got so warm it couldn't hold any oxygen, stagnating the water column.

Answer: <https://biology-forums.com/index.php?topic=373850>

### Question 1781

Hot springs are most numerous in which region of the United States?

- A) Southeast
- B) Northeast
- C) West
- D) Midwest

Answer: <https://biology-forums.com/index.php?topic=373109>

### Question 1782

Lithospheric plates are the tops of convection cells and subduction zones are the downgoing part of the convection cell.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372562>

### Question 1783

Which one of the following mineral groups exhibits a sheet-like silicate structure?

- A) pyroxenes
- B) micas
- C) feldspars
- D) carbonates

Answer: <https://biology-forums.com/index.php?topic=372637>

### Question 1784

\_\_\_\_\_ develop where oceanic lithosphere bends downward and sinks into the mantle.

- A) Deep ocean trenches
- B) Abyssal seamounts
- C) Submarine canyons
- D) Rift valleys on mid-ocean ridges

Answer: <https://biology-forums.com/index.php?topic=373719>

### Question 1785

How do modern telescopes prevent problems of earlier telescopes that limited mirror size and stability during temperature changes?

- A) They use a digital imaging system and process the image to remove distortions.
- B) They only use telescopes in space to avoid the atmosphere.
- C) They use a mirror that is constantly adjusted in shape to adjust for changes in atmospheric distortions.
- D) They use a super refraction system that uses a series of small lenses that avoid chromatic effects to collect more light than previously possible.

Answer: <https://biology-forums.com/index.php?topic=374485>

### Question 1786

Why do humid tropical regions have only small variations in temperature throughout the year?

- A) The winds associated with these systems rapidly redistribute the heat.
- B) The cloud cover and rain do not allow the temperatures to rise or fall significantly.
- C) The canopy of trees in the rain forest shade the ground and reflect light all the time.
- D) The constant humidity maintains a relatively uniform temperature.
- E) The location of this climatic region is limited to an area where the solar radiation does not vary significantly.

Answer: <https://biology-forums.com/index.php?topic=374240>

### Question 1787

We know the age of the lunar highlands from \_\_\_\_\_.

- A) dating of earth rocks, and correlating to lunar events
- B) dating of lunar rocks collected by Apollo missions
- C) age estimates from cratering rates
- D) dating of lunar maria basalts collected by Apollo astronauts, and extrapolated back in time by relative chronology

Answer: <https://biology-forums.com/index.php?topic=374408>

### Question 1788

As the solar system began forming, the first materials to condense into small particles were \_\_\_\_\_ and nickel.

- A) carbon
- B) nitrogen
- C) silicon
- D) oxygen
- E) none of these

Answer: <https://biology-forums.com/index.php?topic=373609>

### Question 1789

You land your inflatable boat on a sandbar at high tide in Southeast Alaska, which has a large semi-diurnal tide. You intend to be away from the boat for 12 hours, but come back early after only 8 hours. Your boat is, unfortunately, 400m from shore. How long will you have to wait to be able to use your boat (assuming you can't carry it)?

- A) 12 hours and 25 minutes
- B) 6 hours
- C) 4 hours and 25 minutes
- D) 6 hours and 12 minutes

Answer: <https://biology-forums.com/index.php?topic=373908>

### Question 1790

Which astronomer developed the three laws of planetary motion?

Answer: <https://biology-forums.com/index.php?topic=374381>

### Question 1791

The decay of  $^{40}\text{K}$  has a half of  $1.3 \times 10^9$  years. The age of the earth is estimated at  $4.6 \times 10^9$  years. The decay of  $^{40}\text{K}$  is a major heat source for the

earth's interior. Relative to today, how much more heat was produced by 40K in the early Archaean era or 3.9 × 10<sup>9</sup> years ago?

- A) 6x
- B) 2x
- C) 8x
- D) 4x

Answer: <https://biology-forums.com/index.php?topic=373564>

### Question 1792

Coastal Alaska and Norway are in the \_\_\_\_\_ group of climates.

- A) polar
- B) humid middle-latitude, mild winters
- C) humid middle-latitude, severe winters
- D) humid tropical climates
- E) dry

Answer: <https://biology-forums.com/index.php?topic=374257>

### Question 1793

The process of converting a liquid to vapor is termed \_\_\_\_\_.

- A) sublimation
- B) melting
- C) condensation
- D) evaporation

Answer: <https://biology-forums.com/index.php?topic=374011>

### Question 1794

Which of the following best characterizes an angular unconformity?

- A) Horizontal lava flows lie below the unconformity and horizontal; sedimentary strata lie above.
- B) The discordant boundary between older strata and an intrusive body of granite.
- C) Tilted strata that lie below the unconformity are truncated at the unconformity, and strata above the unconformity are also tilted and truncated, but at a different angle
- D) Tilted strata lie below the unconformity; bedding in younger strata above is parallel to the unconformity.

Answer: <https://biology-forums.com/index.php?topic=373530>

### Question 1795

What distinguishes Valley or Alpine Glaciers, Ice Sheets, Ice Shelves, and Sea Ice from each other?

Answer: <https://biology-forums.com/index.php?topic=373220>

### Question 1796

Briefly discuss the movement of sand on a beach environment. Include those factors, both natural and human-induced, that affect sand movement.

Answer: <https://biology-forums.com/index.php?topic=373928>

### Question 1797

The principle of lateral continuity proposes that sedimentary rock layers continue in all directions until they grade into a different rock type or thin out on the edge of a basin is important because \_\_\_\_\_.

- A) it showed that catastrophism could not explain the flat layers of the earth
- B) it provided an explanation how rocks behave in a depositional setting
- C) it provided a way to recognize if rocks had been deformed
- D) it allowed geologists to correlate sedimentary rock units over large distances

Answer: <https://biology-forums.com/index.php?topic=373521>

### Question 1798

The first fully land-based animals were \_\_\_\_\_.

- A) stromatolites
- B) reptiles
- C) amphibians
- D) cephalopods
- E) eukaryotes

Answer: <https://biology-forums.com/index.php?topic=373660>

### Question 1799

Igneous rocks are composed primarily of sulfate-type minerals.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372853>

### Question 1800

By applying the law of superposition, \_\_\_\_\_ dates can be determined.

- A) radiometric
- B) conventional
- C) relative
- D) both relative and radiometric

Answer: <https://biology-forums.com/index.php?topic=373532>

### Question 1801

Discuss the formation and growth of tropical cyclone (hurricanes) and how winds aloft affect their formation.

Answer: <https://biology-forums.com/index.php?topic=374228>

### Question 1802

If these mountains formed 50 million years ago, why are they still high?

Answer: <https://biology-forums.com/index.php?topic=373508>

### Question 1803

If you go to a beach in the continental United States and you are standing on a long, flat strand of sand, and you look away from the open ocean and see only a few low sand dunes and then a large, open waterway, where are you?

- A) on a surfing beach in California
- B) on a barrier island on the Florida Gulf Coast
- C) on the Oregon coast at the mouth of river
- D) You must be on a Pacific Island; there is nothing like that on U.S. coastlines.

Answer: <https://biology-forums.com/index.php?topic=373901>

### Question 1804

When winds blow parallel to the isobars, which is usually the case for winds aloft, they are called \_\_\_\_\_ winds.

Answer: <https://biology-forums.com/index.php?topic=374154>

### Question 1805

Why does a rain gauge have a wide opening that funnels into a narrow tube?

- A) The wide opening allows evaporation so it is a more accurate representation of what actually happens on the surface.
- B) The narrow tube minimizes evaporation and magnifies the amount of rain captured by the wide opening.
- C) The narrow tube takes less space.
- D) Rain drops are too far apart to measure with a narrow opening.

Answer: <https://biology-forums.com/index.php?topic=374071>

### Question 1806

The tropopause is the boundary between \_\_\_\_\_.

- A) two layers of high ozone concentration
- B) the troposphere and stratosphere
- C) the troposphere and mesosphere
- D) tropical and polar air masses

Answer: <https://biology-forums.com/index.php?topic=373953>

### Question 1807

Isotopes of what element are the stable, end products of both uranium decay series?

Answer: <https://biology-forums.com/index.php?topic=373591>

### Question 1808

Clay minerals formed from gabbro or diorite bedrock illustrate which kind of weathering?

- A) chemical
- B) syntropical
- C) proactive
- D) mechanical

Answer: <https://biology-forums.com/index.php?topic=372896>

### Question 1809

A natural levee is \_\_\_\_\_.

- A) essentially parallel to its stream channel
- B) a depositional feature
- C) an erosional feature
- D) both a depositional feature and essentially parallel to its stream channel

Answer: <https://biology-forums.com/index.php?topic=373093>

### Question 1810

\_\_\_\_\_ is the weak layer.

Answer: <https://biology-forums.com/index.php?topic=373364>

### Question 1811

The discovery that the universe appears to be expanding led to a widely accepted theory called \_\_\_\_\_.

- A) Hubble's Law
- B) the Doppler effect
- C) Einstein's Law
- D) the Big Bang

Answer: <https://biology-forums.com/index.php?topic=374583>

### Question 1812

One important reason we do not know much about the geologic history of the Precambrian is that \_\_\_\_\_.

- A) we have not yet been able to establish the half-lives for radioactive elements that existed in the Precambrian
- B) rocks did not exist during much of that time
- C) the climate was so harsh that erosion removed most of the rocks that formed during the Precambrian.
- D) there are very few fossils preserved in Precambrian rocks
- E) radioactivity was not measurable during the Precambrian

Answer: <https://biology-forums.com/index.php?topic=373627>

### Question 1813

A major economic deposit associated with the Cretaceous period is \_\_\_\_\_.

- A) sand
- B) gold
- C) coal
- D) uranium
- E) platinum

Answer: <https://biology-forums.com/index.php?topic=373644>

### Question 1814

The Appalachians and Himalaya are a classic collisional mountain belts yet the elevation of the Appalachians mountains is a tiny fraction of the lofty Himalaya. Why are these two collisional mountain belts so different?

Answer: <https://biology-forums.com/index.php?topic=373509>

### Question 1815

Hubble's law states that galaxies are receding from us at a speed that is proportional to their \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374600>

### Question 1816

Erosional retreat of a(n) \_\_\_\_\_ leads to enlargement and extension of a wave-cut platform in the inland direction.

- A) wave-cut barrier beach
- B) wave-cut tombolo
- C) offshore, wave-cut, breakwater bar
- D) wave-cut cliff

Answer: <https://biology-forums.com/index.php?topic=373882>

### Question 1817

Subduction zones are downgoing convection cells in the earth but only carry oceanic material into the mantle.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372564>

### Question 1818

When several radio telescopes are connected together, the resulting network is called a(n) \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374528>

### Question 1819

Which of the following is not true of the rings of Saturn

- A) They are mostly very thin, forming a large planar disk.
- B) They are remnants of the formation of the planet and have not changed over time.
- C) They are comprised of various sized objects ranging from dust to moon-size objects.
- D) The faintest outer rings are closely associated with the moon Enceladus.

Answer: <https://biology-forums.com/index.php?topic=374437>

### Question 1820

The southeastern United States lies in the heart of the "horse latitudes" where normally we would expect desert conditions. Why isn't this area a desert?

- A) Maritime polar air masses disturb the pattern by driving pacific moisture across North America.
- B) Continental polar air masses disturb the pattern by periodic influxes of cold air.
- C) Continental tropical air masses derived from Mexico disturb the pattern when these air masses are drawn northward by cyclonic storms.
- D) Maritime tropical air masses derived from the Gulf of Mexico disturb the pattern when these air masses are drawn northward by cyclonic storms.

Answer: <https://biology-forums.com/index.php?topic=374174>

### Question 1821

This term is used to describe clouds that produce precipitation.

- A) nimbo
- B) stratus
- C) cirrus
- D) cumulus

Answer: <https://biology-forums.com/index.php?topic=374050>

### Question 1822

Hawaii island arc volcanic arc subduction

Answer: <https://biology-forums.com/index.php?topic=373284>

### Question 1823

Multibeam provides the best modern technique for obtaining seafloor bathymetry, so why hasn't it been used for the entire ocean?

- A) It doesn't work in deep water.
- B) It doesn't work where there is ice.
- C) It is too expensive, requiring many ships many years to survey the entire ocean.
- D) Oceanographers simply haven't had time to process all the data.

Answer: <https://biology-forums.com/index.php?topic=373709>

### Question 1824

The \_\_\_\_\_ is the temperature to which a parcel of air would need to be cooled in order to reach saturation.

Answer: <https://biology-forums.com/index.php?topic=374088>

### Question 1825

Which of the following describes the light reflecting and transmission characteristics of a mineral?

- A) color streak
- B) virtual absorption
- C) fluorescence
- D) luster

Answer: <https://biology-forums.com/index.php?topic=372614>

### Question 1826

Winterless climates with all months having a mean temperature above 18°C are called \_\_\_\_\_ climates.

Answer: <https://biology-forums.com/index.php?topic=374295>

### Question 1827

horn arête lateral moraine drumlin

Answer: <https://biology-forums.com/index.php?topic=373208>

### Question 1828

The rock formations of the \_\_\_\_\_ era are more widespread and less disturbed than those of any other time.

Answer: <https://biology-forums.com/index.php?topic=373687>

### Question 1829

At the start of the Triassic, most of the continents were above sea level, and sediments from that time are often red because \_\_\_\_\_.

- A) they contain extensive deposits of iron ore
- B) the dry climate baked clays to form hornfels
- C) they are a major source of uranium and red quartz
- D) they include iron oxides
- E) there are extensive dune fields

Answer: <https://biology-forums.com/index.php?topic=373648>

### Question 1830

Which of the following geologic observations would not bear directly on working out the sequence of geologic events in an area?

- A) a well-exposed dike of basalt in sandstone
- B) an unconformity between a granite and sandstone
- C) the feldspar and quartz contents of a granite
- D) inclusions of sandstone in a granite pluton

Answer: <https://biology-forums.com/index.php?topic=373536>

### Question 1831

In the late 1800's various principles (original horizontality, inclusions, cross cutting relations, etc.) were established and used to \_\_\_\_\_.

- A) organize the order in which events occurred on earth
- B) determine the age of the earth
- C) prove that evolution was a valid theory that could explain many geologic observations
- D) determine the age of events on the earth

Answer: <https://biology-forums.com/index.php?topic=373528>

### Question 1832

High clouds that form delicate veil-like patches or wispy fibers are called \_\_\_\_\_ clouds.

Answer: <https://biology-forums.com/index.php?topic=374086>

### Question 1833

Granitic batholiths typically form over time intervals of \_\_\_\_\_.

- A) hundreds of thousands of years
- B) billions of years
- C) tens of thousands of years
- D) millions of years

Answer: <https://biology-forums.com/index.php?topic=373472>

### Question 1834

The United States spans \_\_\_\_\_.

- A) the middle latitudes
- B) from the temperate zone to the arctic
- C) the entire range of the Northern Hemisphere
- D) from the tropics to the arctic
- E) from the tropics to temperate zones

Answer: <https://biology-forums.com/index.php?topic=373932>

### Question 1835

Mount Pelee on the Island of Martinique erupted in the early 20th century. Why is this eruption famous?

- A) It was a small cinder cone on an island that erupted in a sugar cane field.
- B) It produced a major lateral blast that leveled a city, killing many people.
- C) It was the first caldera forming eruption observed by modern scientists.
- D) The volcano produced a pyroclastic flow that swept down the mountain, killing thousands of people.

Answer: <https://biology-forums.com/index.php?topic=373411>

### Question 1836

A soil that has nearly equal amounts of clay, silt and sand is called \_\_\_\_\_.

- A) lane
- B) loam
- C) rich
- D) clayey

Answer: <https://biology-forums.com/index.php?topic=372911>

### Question 1837

Electromagnetic radiation that behaves like a particle is called a(n) \_\_\_\_\_.

- A) photon
- B) electron
- C) proton
- D) quark

Answer: <https://biology-forums.com/index.php?topic=374466>

### Question 1838

"Black smokers" are associated with \_\_\_\_\_.

- A) hot water
- B) oceanic ridges
- C) mineral-rich waters
- D) all of these

Answer: <https://biology-forums.com/index.php?topic=373733>

### Question 1839

Which of the following layers in the earth has the highest density?

- A) Outer Core
- B) Lithosphere
- C) Asthenosphere
- D) Lower mantle

Answer: <https://biology-forums.com/index.php?topic=372516>

### Question 1840

Which of the following is not necessary for a hypothesis to be accepted by the scientific community?

- A) There must be alternative hypotheses proposed.
- B) It must be testable.
- C) It must predict something other than the observations it was based on.
- D) It must be based on observations or facts.

Answer: <https://biology-forums.com/index.php?topic=372492>

### Question 1841

Which of the following did not exist prior to the Quaternary Ice ages?

- A) the Great Lakes
- B) the Mississippi River
- C) Antarctica
- D) the Colorado River
- E) the arctic ocean

Answer: <https://biology-forums.com/index.php?topic=373187>

### Question 1842

A river is flowing in a broad, alluvial valley and the river is silt-laden but also moves sand and a small amount of gravel. The government decides to build a dam across the valley for power and flood control. What will happen to the river, upstream of the dam?

- A) The river will start to deposit sand and gravel, frequently spilling out of its channel.
- B) The river will not change.
- C) The river will downcut.
- D) The river will respond to the new temporary base level and cut laterally outside its valley, widening the valley.

Answer: <https://biology-forums.com/index.php?topic=373086>

### Question 1843

Volcanoes form above subduction zones because \_\_\_\_\_.

- A) the asthenosphere is displaced by the subducting lithosphere and rises to the surface to form volcanoes
- B) water is squeezed out of the subducting slab and the water triggers melting of the overlying asthenosphere
- C) the lithosphere thickens above the subducting lithosphere and causes volcanoes to form
- D) the subducting lithosphere melts as it descends and the magma rises to form volcanoes

Answer: <https://biology-forums.com/index.php?topic=373265>

### Question 1844

Thunder and lightning are associated with these clouds.

- A) cumulonimbus
- B) cirrostratus
- C) cirrus
- D) altostratus

Answer: <https://biology-forums.com/index.php?topic=374052>

### Question 1845

You are swimming with your buddies on a beach in the surf. You leave your cooler and supplies on the beach, and after a half hour you swim back to shore, but your stuff isn't there. You look along the beach and see your cooler 200 m down the beach. How did that happen?

- A) You and your buddies must have gotten caught in a rip current without knowing it.
- B) You and your buddies must have been swimming parallel to the shore without thinking about it.
- C) You and your buddies were affected by the longshore current and drifted with it along the coast.
- D) You and your buddies must have had too many and just lost track of where you were.

Answer: <https://biology-forums.com/index.php?topic=373871>

### Question 1846

An instrument that measures wind speed is called a(n) \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374162>

### Question 1847

Which mass wasting process has the slowest rate of movement?

- A) rock avalanche
- B) creep
- C) slump
- D) rock fall

Answer: <https://biology-forums.com/index.php?topic=372962>

### Question 1848

Cambrian Mississippian Jurassic Devonian

Answer: <https://biology-forums.com/index.php?topic=373674>

### Question 1849

Which of the following describes radioactive decay by beta particle emission?

- A) The atomic number of the daughter isotope is one more than the parent; the mass numbers are the same.
- B) The daughter isotope has an atomic number two less than the parent and a mass number four less.
- C) The daughter isotope has an atomic number one less than the parent and a mass number two less.
- D) The mass number of the daughter isotope is one more than the parent, and both isotopes have the same atomic number.

Answer: <https://biology-forums.com/index.php?topic=373559>

### Question 1850

Much of the early hydrogen and helium escaped the earth's atmosphere into space because \_\_\_\_\_.

- A) Solar winds were weak
- B) The earth's gravity was weak
- C) Solar winds were strong
- D) The earth's gravity was strong
- E) All of the above

Answer: <https://biology-forums.com/index.php?topic=373616>

### Question 1851

The most unreliable (variable) diagnostic property of minerals such as quartz is \_\_\_\_\_.

- A) habit
- B) color
- C) hardness
- D) specific gravity

Answer: <https://biology-forums.com/index.php?topic=372608>

### Question 1852

What term describes a soil that has developed from silt and clay deposited by a flooding river?

Answer: <https://biology-forums.com/index.php?topic=373029>

### Question 1853

During periods of high solar activity, huge cloudlike structures that appear as great arches extending from the Sun are often produced. These solar features are called \_\_\_\_\_.

- A) plages
- B) spicules
- C) prominences
- D) the solar wind
- E) quasars

Answer: <https://biology-forums.com/index.php?topic=374506>

### Question 1854

Preserved rocks in North America are generally less than \_\_\_\_\_.

- A) 3.5 billion years old
- B) 10 km thick
- C) 20 km wide
- D) 2.7 g/cm<sup>3</sup> in density
- E) 50 km long

Answer: <https://biology-forums.com/index.php?topic=373631>

### Question 1855

\_\_\_\_\_ continental margins typically exhibit wide, extensive, continental shelves.

Answer: <https://biology-forums.com/index.php?topic=373763>

### Question 1856

Climatic zones are often based on different types of vegetation that result from the prevailing climatic conditions. Considering such zones, what are some of the potential problems when using fossil plant assemblages to interpret ancient climates? What are some of the factors (geological or otherwise) that would influence your conclusions?

Answer: <https://biology-forums.com/index.php?topic=374315>

### Question 1857

Climates where evaporation exceeds precipitation are called \_\_\_\_\_ climates.

- A) polar
- B) humid middle-latitude
- C) highland
- D) dry
- E) humid tropical

Answer: <https://biology-forums.com/index.php?topic=374237>

### Question 1858

A river emerges from a valley onto a flat plain, but the river itself lies in a narrow, shallow canyon as it crosses the plain, then plunges into a steep

sided canyon as it flow past the plain. A geologist floating down the canyon headed for the whitewater in the canyon notices the river is flowing through lake deposits as it flows across the plain. What happened in this area?

- A) The river has cut a deep canyon that crossed through a lake, and this process has been continuous for a long time.
- B) The river used to flow into a lake, which formed a temporary base level, but in recent geologic time the lakes dam broke, and the river is now downcutting in response to the change in local base level.
- C) The river is at base level throughout its trace and has been for a long time.
- D) The geologist can't be right; this is an impossible scenario.

Answer: <https://biology-forums.com/index.php?topic=373088>

### Question 1859

The process by which water vapor changes directly to a solid is called \_\_\_\_\_.

- A) condensation
- B) evaporation
- C) deposition
- D) melting

Answer: <https://biology-forums.com/index.php?topic=374010>

### Question 1860

A rancher overgrazes his land in an area underlain by heavy clay soils and regolith developed from weathering of claystone. After a series of heavy rains small creeks develop deep gullies along their length. A light steady rain develops and continues for several days. What should the rancher be concerned about on his overgrazed lands?

- A) lahars filling cascading down his creeks, wiping out his cattle
- B) rock avalanche
- C) slumps along the creeks
- D) increasing gully development because of the rain

Answer: <https://biology-forums.com/index.php?topic=372947>

### Question 1861

The North Pole has a higher noon Sun angle than New York City on this date.

- A) June 21
- B) September 21
- C) March 21
- D) none of these

Answer: <https://biology-forums.com/index.php?topic=373963>

### Question 1862

Sea level change is \_\_\_\_\_.

- A) steady
- B) decelerating
- C) not occurring
- D) accelerating

Answer: <https://biology-forums.com/index.php?topic=374288>

### Question 1863

If a packet of cool air were forced to rise and became cooler than the surrounding air is the packet considered to be stable or unstable?

Answer: <https://biology-forums.com/index.php?topic=374083>

### Question 1864

Which of the following devices measures both wind direction and speed?

- A) wind sock
- B) wind vane
- C) anemometer
- D) None of these can measure both wind speed and direction.

Answer: <https://biology-forums.com/index.php?topic=374140>

### Question 1865

Following the reptilian extinctions at the close of the Mesozoic era, two groups of mammals, the marsupials and \_\_\_\_\_, evolved and expanded.

Answer: <https://biology-forums.com/index.php?topic=373696>

### Question 1866

The precipitation associated with a warm front typically arrives \_\_\_\_\_ the actual frontal boundary.

- A) considerably behind
- B) at about the same time as
- C) considerably ahead of
- D) none of these

Answer: <https://biology-forums.com/index.php?topic=374187>

### Question 1867

A meandering river is flowing in a broad, alluvial valley and the river is silt-laden but also moves sand and a small amount of gravel. The government decides to build a dam across the valley for power and flood control. What will happen to the river downstream of the dam?

- A) The river will not change.
- B) The river will respond to the new temporary base level and cut laterally outside its valley, widening the valley.
- C) The trapping of silt in the reservoir will change the river to a braided stream because it will only have sand and gravel in its sediment load.
- D) The river will start to deposit sand and gravel, frequently spilling out of its channel.

Answer: <https://biology-forums.com/index.php?topic=373091>

### Question 1868

The quartz in granite begins to melt at 650°C, so if we find a migmatite where quartz has melted in a granitic rock and we know the temperature in the region increased with depth by about 25°C per kilometer, we could estimate the depth that the rock had been at to be about \_\_\_\_\_.

- A) 26.0 km
- B) 12.5 km
- C) 18.0 km
- D) 23.5 km

Answer: <https://biology-forums.com/index.php?topic=372748>

### Question 1869

Which of the following is not a criterion for defining something as a mineral?

- A) Orderly crystalline structure
- B) Naturally occurring
- C) Generally inorganic
- D) Hard

Answer: <https://biology-forums.com/index.php?topic=372584>

### Question 1870

Deep ocean trenches typically are not located adjacent to \_\_\_\_\_.

- A) transform plate boundaries
- B) abyssal plains
- C) volcanic island arc chains
- D) young continental mountains

Answer: <https://biology-forums.com/index.php?topic=372528>

### Question 1871

Sheeting is mainly a process of mechanical weathering.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372974>

### Question 1872

Based on your knowledge of isostasy, would you expect thicker or thinner crust beneath the Caribbean Islands (e.g., near D) than the continental region of Venezuela to the south?

Answer: <https://biology-forums.com/index.php?topic=373500>

### Question 1873

The water table is \_\_\_\_\_.

- A) a boundary between unsaturated bedrock and an underground river
- B) an underground mass of partly saturated rock
- C) a boundary between saturated rock below and unsaturated rock above

D) a boundary between unsaturated bedrock below and saturated bedrock above

Answer: <https://biology-forums.com/index.php?topic=373102>

### Question 1874

At the head of a delta, the major channel splits into smaller channels that follow different paths to the sea. These smaller channels are known as \_\_\_\_\_.

- A) distributaries
- B) endotributaries
- C) exotributaries
- D) cotributaries

Answer: <https://biology-forums.com/index.php?topic=373092>

### Question 1875

Sea level change will have its greatest impact on coastal areas that are \_\_\_\_\_.

- A) passive continental margins like the eastern U.S. and southern India
- B) subduction zones like Japan
- C) volcanic islands like Hawaii
- D) active continental margins like California and Chile
- E) all of the above

Answer: <https://biology-forums.com/index.php?topic=374287>

### Question 1876

The air masses that have the greatest influence on weather conditions in the central United States are \_\_\_\_\_.

- A) mP and mT
- B) cP and mT
- C) mP and cP
- D) cT and cP

Answer: <https://biology-forums.com/index.php?topic=374171>

### Question 1877

The Octet rule states that atoms tend to gain, lose, or share electrons until they are surrounded by six valence electrons.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372662>

### Question 1878

Organisms, such as algae and bacteria, that drift with ocean currents are known as \_\_\_\_\_.

- A) plankton
- B) nekton
- C) biomass
- D) benthos organisms
- E) none of these

Answer: <https://biology-forums.com/index.php?topic=373797>

### Question 1879

A geologist is working in an area of old volcanic rocks exposed by erosion. He finds a large rock outcrop that contains flat lying gravels in the base of the outcrop. These gravels are overlain by basalt that forms a series of layers representing flows. The uppermost basalt lava flows have a dip of about 10 degrees to the west. What does this outcrop record?

- A) Basalt flows formed after gravels were deposited, covered the local terrain, and built a shield volcano with dips of about 10 degrees.
- B) You can't tell anything about the history of this region from this outcrop.
- C) Gravels were initially deposited in a river valley and a cinder cone was erupted, damming the valley, before a cinder cone formed.
- D) Basalt flows formed above a series of gravels, filling a river valley.

Answer: <https://biology-forums.com/index.php?topic=373398>

### Question 1880

What type of volcano would be most likely to generate large landslides?

- A) cinder cone
- B) shield volcano
- C) composite volcano
- D) caldera

Answer: <https://biology-forums.com/index.php?topic=373408>

### Question 1881

A blue star is \_\_\_\_\_ our Sun.

- A) colder and larger than
- B) hotter and larger than
- C) colder and smaller than
- D) hotter and smaller than
- E) approximately the same temperature and size as

Answer: <https://biology-forums.com/index.php?topic=374559>

### Question 1882

granules sunspots spicules photosphere

Answer: <https://biology-forums.com/index.php?topic=374522>

### Question 1883

How does climate change affect the hydrologic cycle?

Answer: <https://biology-forums.com/index.php?topic=373141>

### Question 1884

The most popular theory for the origin of the moon today is \_\_\_\_\_.

- A) the earth captured a small planet, which is our moon.
- B) the moon and Earth coalesced from an eddy in the solar nebular, forming a binary planet system.
- C) the early Earth and a planet the size of Mars collided, and the ejected material coalesced to form the earth's moon.
- D) the moon was formed when Mars and a comparable size planet collided, and the moon was ejected toward Earth and captured.

Answer: <https://biology-forums.com/index.php?topic=374407>

### Question 1885

Limestone and marble weather faster than granite because \_\_\_\_\_.

- A) granite is more resistant to physical weathering because of its large crystals
- B) limestone and marble can be dissolved by weak acids in rain
- C) limestone has many cracks and holes that allow water to infiltrate and weather the rock
- D) granite does not react with rainwater and only weathers by physical erosion

Answer: <https://biology-forums.com/index.php?topic=372908>

### Question 1886

The mixing ratio = mass of water vapor (grams)/ mass of dry air (kilograms). So if you have 10 grams of water vapor in 100 kilograms of dry air, what is the mixing ratio?

- A) 1 g/kg
- B) 0.1 g/kg
- C) 10 g/kg
- D) 100 g/kg
- E) 0.01 g/kg

Answer: <https://biology-forums.com/index.php?topic=374014>

### Question 1887

\_\_\_\_\_ is the total quantity of sediment carried by a river.

Answer: <https://biology-forums.com/index.php?topic=373128>

### Question 1888

Bedding planes and fractures can both act as slip surfaces for rockslides.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=373004>

### Question 1889

A major difference between Catastrophism and Uniformitarianism is \_\_\_\_\_.

- A) Uniformitarianism does not allow for catastrophic events while Catastrophism is based on the assumption that they are the major forces of change in the earth

- B) Uniformitarianism explains the young age of the earth by suggesting that while processes have not changed over time, the rates of processes may vary significantly
- C) Catastrophism supports rapid changes on the earth and a young age of the earth while Uniformitarianism requires long times for changes to be significant and thus a very old earth
- D) Catastrophism requires all changes on earth be due to unpredictable events that cannot be explained while Uniformitarianism proposes that all events are predictable

Answer: <https://biology-forums.com/index.php?topic=373516>

### Question 1890

If you just want to go for a swim in a meandering river and want to find a sandy beach, where is the best place to look for your swimming hole?

- A) outside bend of the meander loops
- B) straight stretches between meander loops
- C) a point bar on the inside bend of a meander
- D) It isn't easy to predict, you'll just have to look around.

Answer: <https://biology-forums.com/index.php?topic=373080>

### Question 1891

On the AVERAGE, for every 1 km increase in altitude in the troposphere, the air temperature \_\_\_\_\_.

- A) rises about 6.5°C
- B) remains constant
- C) rises only during the day
- D) drops about 6.5°C

Answer: <https://biology-forums.com/index.php?topic=373952>

### Question 1892

Which of the following is not considered to be part of a typical ocean basin?

- A) granitic intrusions
- B) a linear chain of volcanoes
- C) deep canyons
- D) large expanses of flat plains

Answer: <https://biology-forums.com/index.php?topic=372527>

### Question 1893

An alluvial fan \_\_\_\_\_.

- A) a fan-shaped mass of sediment deposited at the base of a mountain front due to an abrupt change in stream gradient
- B) is another name for a small delta forming along a beach
- C) a fan-shaped sediment mass generated by a distributary channel
- D) a plant that grows in deltas and is diagnostic of a delta

Answer: <https://biology-forums.com/index.php?topic=373095>

### Question 1894

Obsidian exhibits a \_\_\_\_\_ texture.

- A) coarse-grained
- B) fine-grained
- C) porphyritic
- D) glassy

Answer: <https://biology-forums.com/index.php?topic=372706>

### Question 1895

The Sun is composed almost entirely of two gases. They are \_\_\_\_\_ and \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374532>

### Question 1896

Crystal size is controlled by temperature.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372852>

### Question 1897

Currents within the surf zone that flow parallel to the shore are known as \_\_\_\_\_ currents.

Answer: <https://biology-forums.com/index.php?topic=373919>

### Question 1898

The least significant form of heat transfer in the atmosphere is \_\_\_\_\_.

- A) radiation
- B) contraction
- C) convection
- D) conduction

Answer: <https://biology-forums.com/index.php?topic=373968>

### Question 1899

The most abundant salt in seawater is \_\_\_\_\_.

- A) NaCl
- B) MgCl<sub>2</sub>
- C) SiO<sub>2</sub>
- D) KCl

Answer: <https://biology-forums.com/index.php?topic=373779>

### Question 1900

Deep sea trenches are important features for plate tectonic studies because \_\_\_\_\_.

- A) they are sites where two plate move past each other horizontally
- B) they are sites where the oceanic lithosphere is consumed into the mantle
- C) they are sites where oceanic lithosphere is formed
- D) none of the above

Answer: <https://biology-forums.com/index.php?topic=373727>

### Question 1901

Neptune and Uranus both appear bluish in sunlight whereas Jupiter and Saturn are multicolored. Why are Neptune and Uranus blue?

- A) The effect is not real; it is just due to low light levels.
- B) They contain ice crystals high in the atmosphere, and water ice is blue.
- C) They do not contain dust and debris in the atmosphere, like Saturn and Jupiter.
- D) They contain methane ice in their atmosphere which causes the color.

Answer: <https://biology-forums.com/index.php?topic=374433>

### Question 1902

The most studied and well-documented urban climatic effect is the \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374313>

### Question 1903

Which of the following does not happen when the humidity exceeds 100%?

- A) It hails
- B) It rains
- C) It snows
- D) It gets warmer
- E) Clouds form

Answer: <https://biology-forums.com/index.php?topic=374016>

### Question 1904

The latent heat of vaporization has the effect of cooling a liquid because \_\_\_\_\_.

- A) the liquid that forms the gas molecules absorbs and stores heat until all of the liquid becomes a gas
- B) a solid absorbs heat from the atmosphere when it becomes vapor
- C) the gas molecules that form and leave the liquid are the higher temperature molecules in the liquid, so the temperature of the liquid is reduced
- D) when something becomes a gas it releases heat, and the liquid gets cooler as a result
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=374007>

### Question 1905

On a given day in the winter in St. Louis, Missouri, it began snowing in the morning, the snow changed to rain by noon, later in the afternoon sleet was

falling which turned to snow, and by evening rain was freezing on bridges and roadways as glaze. Briefly explain how such a sequence of precipitation might occur.

Answer: <https://biology-forums.com/index.php?topic=374096>

### Question 1906

In the outer most layer of the atmosphere, gas molecules can have a temperature of 1000°C because \_\_\_\_\_.

- A) that is the temperature of an object that is entering the earth's atmosphere at a high speed
- B) that is the temperature of the solar radiation
- C) there is no filter to keep the sun from heating the outer atmosphere
- D) that is the speed of the individual molecules
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=373951>

### Question 1907

Discuss the phases of the moon and how they relate to the motions of the Earth and Moon. Also, how are eclipses of the Moon and Sun related to these motions?

Answer: <https://biology-forums.com/index.php?topic=374395>

### Question 1908

The angle of the noon sun varies by \_\_\_\_\_ degrees each year.

- A) 15
- B) 47
- C) 73.5
- D) 23.5
- E) It is different in different places.

Answer: <https://biology-forums.com/index.php?topic=373959>

### Question 1909

What is a popular theory for the difference in atmospheres of the Jovian planets versus terrestrial planets?

- A) High temperatures and solar wind in the inner planets allowed most of the volatiles to be driven off the terrestrial planets, but not the Jovian planets.
- B) The Jovian planets trapped most of the comets which carried the gases.
- C) The terrestrial planets are too cold to retain anything but heavy gases.
- D) The Jovian planets are just bigger, so they trap more gases.

Answer: <https://biology-forums.com/index.php?topic=374401>

### Question 1910

Which of the following is not an example of a foliation in a metamorphic rock?

- A) bedding planes and strata
- B) compositional banding
- C) parallel alignment of flattened pebbles
- D) parallel alignment of platy or flat minerals

Answer: <https://biology-forums.com/index.php?topic=372754>

### Question 1911

The Coriolis effect influences \_\_\_\_\_.

- A) only wind direction
- B) only wind speed
- C) both wind speed and wind direction
- D) neither wind speed nor wind direction

Answer: <https://biology-forums.com/index.php?topic=374110>

### Question 1912

Our detailed knowledge of the glacial cycles and their duration is based primarily on \_\_\_\_\_.

- A) land sediments
- B) climate records
- C) ice cores
- D) seafloor sediments

Answer: <https://biology-forums.com/index.php?topic=373189>

### Question 1913

What term refers to removal of soluble inorganic components from soils?

Answer: <https://biology-forums.com/index.php?topic=373028>

### Question 1914

In the western Pacific, hurricanes are called \_\_\_\_\_.

Answer: <https://biology-forums.com/index.php?topic=374224>

### Question 1915

In 2011 snow melt and heavy rains in the upper Missouri River drainage basin produced record runoff that led to extensive flooding in lower Missouri River valley, despite the construction of numerous large flood control dams built on the river in the mid 20th century. What type of failure in an artificial flood control system is this an example of?

- A) Bad planning by the water managers who cared more about power production than downstream flooding
- B) Insufficient levee construction downstream of the dams
- C) A flood outside the design capabilities of the dam system overwhelmed the capacity of the reservoirs forcing opening of flood gates, exacerbating the downstream impact of the flooding
- D) It was not a failure; the dam system worked as planned. It was poor planning by the downstream government agencies.

Answer: <https://biology-forums.com/index.php?topic=373099>

### Question 1916

Why is it important that we have a rigid lithosphere overlying a weak asthenosphere?

- A) If we did not have the rigid lithosphere and weak asthenosphere, the atmosphere would be very different with either too much ammonia and methane or too little oxygen and water.
- B) If we did not have the rigid lithosphere and weak asthenosphere, we would be bombarded by meteorites and we would not be able to hold the moon in orbit.
- C) If we did not have the rigid lithosphere and weak asthenosphere, we would be bombarded by cosmic rays that would strip away our atmosphere.
- D) If we did not have the rigid lithosphere and weak asthenosphere, the earth would not have plate tectonics and would be covered entirely by water.

Answer: <https://biology-forums.com/index.php?topic=373599>

### Question 1917

There are places on the deepest parts of the ocean where no light penetrates that support colonies of life.

- A) [b]True[/b]
- B) [b]False[/b]

Answer: <https://biology-forums.com/index.php?topic=372555>

### Question 1918

Where is the top of the atmosphere?

- A) 32 km above sea level
- B) 21 km above sea level
- C) 100 km above sea level
- D) There is no defined upper limit to the atmosphere.

Answer: <https://biology-forums.com/index.php?topic=373946>

### Question 1919

Which main-sequence stars are the most massive?

- A) orange
- B) yellow
- C) blue
- D) red

Answer: <https://biology-forums.com/index.php?topic=374554>

### Question 1920

The \_\_\_\_\_ is the idea or concept that ancient life forms succeeded each other in a definite, evolutionary pattern and that the contained assemblage of fossils can determine geologic ages of strata.

- A) principle of fossil succession
- B) law of correlative indexing
- C) principle of cross correlation
- D) law of fossil regression

Answer: <https://biology-forums.com/index.php?topic=373551>

### Question 1921

When a metamorphic rock exhibits a layered or banded appearance, it is said to exhibit a(n) \_\_\_\_\_ texture.

Answer: <https://biology-forums.com/index.php?topic=372884>

### Question 1922

hypothesis theory fact observation

Answer: <https://biology-forums.com/index.php?topic=372538>

### Question 1923

What term denotes blocks of older rock enclosed in a body of younger igneous rock?

Answer: <https://biology-forums.com/index.php?topic=373581>

### Question 1924

The type and amount of material carried in the suspended load of a stream depends on \_\_\_\_\_.

- A) settling and flow velocities
- B) turbulence and viscosity
- C) flow velocity and discharge
- D) source accessibility and slope
- E) ground cover and channel shape

Answer: <https://biology-forums.com/index.php?topic=373064>

### Question 1925

Briefly describe how time, temperature, mineralogy, and confining pressure affect the way a rock will deform when the differential stresses on the rock exceed the strength of the rock.

Answer: <https://biology-forums.com/index.php?topic=373504>

### Question 1926

Halides always include \_\_\_\_\_.

- A) Cl-1, F-1, or Br-1
- B) SiO<sub>4</sub>-4
- C) SO<sub>4</sub>-2
- D) CO<sub>3</sub>-2

Answer: <https://biology-forums.com/index.php?topic=372632>

### Question 1927

Which of the following is not a factor influencing a stream's flow velocity?

- A) channel width and cross sectional shape
- B) the amount of water in the channel
- C) channel roughness
- D) channel sinuosity
- E) channel slope

Answer: <https://biology-forums.com/index.php?topic=373055>

### Question 1928

A solar telescope would quickly incinerate your eyes, so how do astronomers save their eyes when looking at the Sun?

- A) They use a special water cooled camera system to avoid superheating the camera.
- B) They project the telescope image onto a large screen or record the image with a camera.
- C) They look at the image very quickly.
- D) They use heavy filters to block out light, particularly at specific wavelengths.

Answer: <https://biology-forums.com/index.php?topic=374507>

### Question 1929

P wave S wave surface wave body wave

Answer: <https://biology-forums.com/index.php?topic=373349>

### Question 1930

The Dry Adiabatic rate of change for unsaturated air is 10°C/1000 m. What does this mean?

- A) Saturated air will not change.
- B) Unsaturated air will get warmer as it sinks and colder as it rises.
- C) Unsaturated air will get warmer as it rises and colder as it sinks.
- D) Unsaturated air will get warmer or colder as it travels in any direction.
- E) Unsaturated air will get warmer or colder as it travels north or south.

Answer: <https://biology-forums.com/index.php?topic=374025>

### Question 1931

The amount of energy released during a nuclear reaction was established by \_\_\_\_\_.

- A) George Hale
- B) Albert Einstein
- C) Galileo
- D) Niels Bohr
- E) Sir Isaac Newton

Answer: <https://biology-forums.com/index.php?topic=374504>

### Question 1932

You take a block of granite and heat it to 1000 degrees Kelvin, and it glows bright red. If you then heat it to 1200 Kelvin, how might it look different?

- A) It would be much brighter and red.
- B) It would be brighter and more white.
- C) It would be about the same brightness but white.
- D) None of the above; it would have melted, and once it melts, it will no longer emit.

Answer: <https://biology-forums.com/index.php?topic=374480>

### Question 1933

The updrafts in thunderstorms are initiated by thermal instabilities at the surface. What process tends to increase the vertical instability that feeds the thunderstorm development?

- A) release of latent heat by condensation
- B) Coriolis forces
- C) a jet stream aloft
- D) low pressure aloft

Answer: <https://biology-forums.com/index.php?topic=374195>

### Question 1934

If you were 200 kilometers ahead of the surface position of a warm front, you would find the frontal surface at a height of about \_\_\_\_\_ km overhead.

- A) 1.5
- B) 0.5
- C) 2.0
- D) 1.0

Answer: <https://biology-forums.com/index.php?topic=374176>

### Question 1935

The single most important erosional agent is \_\_\_\_\_.

- A) wind
- B) waves
- C) ice
- D) running water

Answer: <https://biology-forums.com/index.php?topic=373072>

### Question 1936

The daily mean temperature is determined by \_\_\_\_\_.

- A) summing the maximum and minimum temperatures daily and dividing by 2
- B) measuring the temperature at noon
- C) summing the temperature measured every hour and dividing by 24
- D) summing the digital samples of temperature in several places at different times of day and averaging those samples
- E) none of the above

Answer: <https://biology-forums.com/index.php?topic=373981>

### Question 1937

When a stream is in a v-shaped valley running on bedrock, the stream is \_\_\_\_\_.

- A) responding to a rise in base level
- B) below base level
- C) well above base level
- D) at base level

Answer: <https://biology-forums.com/index.php?topic=373083>

### Question 1938

You are on a boat in a fiord in Glacier Bay, Alaska. It is a clear sunny day with temperatures near 20°C with no wind. Within 5 minutes the sky is still clear but the wind is blowing at 30 knots down valley, the sea is filled with whitecaps, and the temperature drops to 5°C. What just happened?

- A) A storm front must have passed.
- B) You experienced an afternoon sea breeze, blowing cold air off the ocean.
- C) You experienced a Chinook wind.
- D) You experienced a valley wind, caused by cold air spilling off an ice cap down the valley.

Answer: <https://biology-forums.com/index.php?topic=374134>

### Question 1939

The Hawaiian Island-Emperor Seamount chain formed as a result of \_\_\_\_\_.

- A) divergent plate boundary activities
- B) hot spot activities
- C) transform plate boundary activities
- D) convergent plate boundary activities

Answer: <https://biology-forums.com/index.php?topic=373274>

### Question 1940

A geologist is studying sediments on land that were originally deep sea sediments. She finds the minerals zircon and garnet in the sediments, which could only come from a continental region. These sediments must be \_\_\_\_\_.

- A) biogenous sediment
- B) hydrogenous sediment
- C) both terrigenous and biogenous sediment
- D) terrigenous sediment

Answer: <https://biology-forums.com/index.php?topic=373744>

### Question 1941

Widely spaced isobars often indicate \_\_\_\_\_.

- A) cyclonic winds
- B) light winds
- C) high winds
- D) variable winds

Answer: <https://biology-forums.com/index.php?topic=374109>

### Question 1942

How does snow vary with temperature?

- A) Warm snow is often called sleet because it is mixed with rain, but cold snow is more like hail with very large solid ice crystals.
- B) Snow has a uniform moisture content, but warm snow consists of larger crystals.
- C) Cold snow is powdery and light, while warm snow is moist.
- D) Snow has a uniform moisture content, but cold snow consists of larger crystals.
- E) Warm snow is powdery and light, while cold snow is moist.

Answer: <https://biology-forums.com/index.php?topic=374070>

### Question 1943

The high surface temperatures of \_\_\_\_\_ have been attributed to the greenhouse effect.

- A) Mercury
- B) Mars
- C) Uranus
- D) Venus

Answer: <https://biology-forums.com/index.php?topic=374414>

### Question 1944

Compare and contrast the various types of telescopes, including radio telescopes. What are the advantages and disadvantages of each one? Are there other considerations when choosing one telescope over another besides optical clarity or magnification?

Answer: <https://biology-forums.com/index.php?topic=374537>

### Question 1945

\_\_\_\_\_ denotes the exposed, crescent-shaped rupture surface at the head of a slump.

- A) Toe
- B) Scarp
- C) Scoop
- D) Sole

Answer: <https://biology-forums.com/index.php?topic=372955>

### Question 1946

Which of the following best describes how geysers erupt?

- A) Water slowly boils in a network of vertical cracks above the water table, sending up a plume of steam and hot water.
- B) Water suddenly boils in disconnected voids and cracks above the water table, causing the aquifer to explosively fragment.
- C) With a slight reduction in pressure, water in a saturated, natural conduit suddenly boils, sending a plume of steam and hot water into the air above the vent.
- D) Water below the water table slowly boils in a vertical crack or natural conduit, causing a plume of condensed water vapor to rise above the vent.

Answer: <https://biology-forums.com/index.php?topic=373110>

### Question 1947

Clay is an example of \_\_\_\_\_.

- A) a sulfate that forms from weathering of other sulfates
- B) a carbonate that forms from weathering of other carbonates
- C) a halide that forms from weathering of other halides
- D) a silicate that forms from weathering of other silicates

Answer: <https://biology-forums.com/index.php?topic=372627>

### Question 1948

Asia has an intense monsoon, but North America also experiences a low-intensity monsoon. What causes monsoons?

- A) The heating of the continent during the summer produces a persistent low pressure over the continent that draws warm moist air masses from adjacent oceans.
- B) The oceans warm faster than the continents during the summer and spawn cyclonic storms that move toward the continents.
- C) Heating of the polar regions in summer due to long days causes air to flow toward the poles in summer, drawing moisture from warm ocean dominated air masses.
- D) The horse latitude high pressure system breaks down in summer, leading to monsoon moisture in desert locations like southwestern North America and India.

Answer: <https://biology-forums.com/index.php?topic=374130>