

Question 1

According to the rock cycle, metamorphism turns sedimentary rock into

- A) lithification.
- B) sediment.
- C) metamorphic rock.
- D) igneous rock.

Answer: <https://biology-forums.com/index.php?topic=417034>

Question 2

What does the prefix meta, such as in metaconglomerate, mean?

- A) changed
- B) made of
- C) formed by process of
- D) formed near to

Answer: <https://biology-forums.com/index.php?topic=417675>

Question 3

Plates move away from one another at

- A) a transform boundary.
- B) a divergent boundary.
- C) neither a divergent, convergent or transform boundary.
- D) a convergent boundary.

Answer: <https://biology-forums.com/index.php?topic=416794>

Question 4

If water were evaporating from a pan, would you expect the water molecules of 16O or 18O to evaporate first?

Answer: <https://biology-forums.com/index.php?topic=417061>

Question 5

How are the Lakes connected to the Atlantic Ocean?

Answer: <https://biology-forums.com/index.php?topic=417793>

Question 6

Convective motion in the atmosphere is approximately _____ times faster than convective motion in the mantle.

- A) 2,500
- B) 100,000
- C) 2,500,000
- D) 2,500,000,000

Answer: <https://biology-forums.com/index.php?topic=417955>

Question 7

True or False: All rift valleys extend sufficiently to form new continents and plate boundaries.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417704>

Question 8

What is the greatest reservoir of water on Earth?

- A) ice
- B) rock-forming minerals
- C) the oceans
- D) atmospheric water

Answer: <https://biology-forums.com/index.php?topic=418280>

Question 9

Which statement about ground water is false?

- A) It is usually a reliable water source.
- B) It makes up about 98 percent of Earth's unfrozen fresh water.
- C) It is less quickly affected by pollution sources than surface water.
- D) It is pure H₂O.

Answer: <https://biology-forums.com/index.php?topic=417066>

Question 10

A clastic sedimentary rock composed of sand-size grains (10% feldspar, 65% quartz and 25% rock fragments) would be called a

- A) lithic sandstone.
- B) low quartz sandstone.
- C) rock fragment sandstone.
- D) mixed sandstone.

Answer: <https://biology-forums.com/index.php?topic=417401>

Question 11

Which mineral is least common below a depth of 15-25 km?

- A) amphibole
- B) pyroxene
- C) quartz
- D) garnet

Answer: <https://biology-forums.com/index.php?topic=418011>

Question 12

What is a typical depth of a deep-sea trench?

- A) 50 m
- B) 50 km
- C) 5 m
- D) 5 km

Answer: <https://biology-forums.com/index.php?topic=417596>

Question 13

Which factor is least important to simulate when designing an experimental model of Earth?

- A) high temperature
- B) Earth's layers
- C) Earth's materials
- D) critical forces

Answer: <https://biology-forums.com/index.php?topic=417207>

Question 14

A weakly foliated metamorphic rock composed of calcite is classified as a

- A) migmatite.
- B) quartzite.
- C) hornfels.
- D) marble.

Answer: <https://biology-forums.com/index.php?topic=417580>

Question 15

All of the following minerals form when lake water evaporates faster than water enters the lake, except

- A) feldspar.
- B) gypsum.
- C) halite.
- D) borax.

Answer: <https://biology-forums.com/index.php?topic=417006>

Question 16

Which type of magma has the lowest gas content?

- A) Andesitic
- B) Dacitic
- C) Rhyolitic
- D) Basaltic

Answer: <https://biology-forums.com/index.php?topic=417287>

Question 17

Which of the following rocks would you expect to have the highest permeability?

- A) Poorly-sorted uncemented sand
- B) Poorly-sorted cemented sand
- C) Well-sorted uncemented sand
- D) Well-sorted cemented sand

Answer: <https://biology-forums.com/index.php?topic=417221>

Question 18

What happened to the initial magnetic field introduced into the computer simulation by Glatzmaier and Roberts?

- A) It increased.
- B) It became self-sustaining.
- C) It decreased.
- D) It faded away.

Answer: <https://biology-forums.com/index.php?topic=417225>

Question 19

Which of the following occurs as a result of compression?

- A) strength
- B) elongation
- C) shortening
- D) strain

Answer: <https://biology-forums.com/index.php?topic=417364>

Question 20

In Figure 12.1-6, why do the parts of the continent closest to the equator appear to move the farthest apart?

Answer: <https://biology-forums.com/index.php?topic=417764>

Question 21

Without convection, there would be no volcanoes on Earth because

- A) molten outer-core melts the lower continental crust.
- B) rising mantle material undergoes decompression melting.
- C) all the convecting material spurts out at the surface.
- D) volcanoes sink down into Earth near down-going convection cells.

Answer: <https://biology-forums.com/index.php?topic=417266>

Question 22

From what mineral is copper most commonly mined?

- A) chalcopyrite
- B) galena
- C) in natural form as lumps of copper
- D) pyrite

Answer: <https://biology-forums.com/index.php?topic=416920>

Question 23

What did Gaspard de Coriolis describe?

Answer: <https://biology-forums.com/index.php?topic=418021>

Question 24

The distinctive layering in sedimentary rocks is called

- A) coating.

- B) bedding.
- C) sheathing.
- D) covering.

Answer: <https://biology-forums.com/index.php?topic=416891>

Question 25

What causes the formation of distributary channels?

- A) The stream joins an ocean, sea, reservoir, or lake.
- B) The stream loses power as it widens.
- C) The stream clogs as the coarsest bedload is deposited.
- D) The stream meets an area where the underlying rock is much harder than the rock before it.

Answer: <https://biology-forums.com/index.php?topic=416862>

Question 26

A chemical or biogenic sedimentary rock consisting of plant organic matter is called

- A) peat.
- B) coal.
- C) rock organic matter.
- D) rock plant.

Answer: <https://biology-forums.com/index.php?topic=417467>

Question 27

Where are most early Paleozoic glacial sediments found?

Answer: <https://biology-forums.com/index.php?topic=417564>

Question 28

Approximately what percent of lithosphere deformation occurs at plate boundaries?

- A) 60%
- B) 70%
- C) 80%
- D) 90%

Answer: <https://biology-forums.com/index.php?topic=417569>

Question 29

The boundary between the zone of accumulation and the zone of wastage is called the

- A) snowline.
- B) wastage line.
- C) glacial line.
- D) accumulation line.

Answer: <https://biology-forums.com/index.php?topic=417518>

Question 30

True or False: Most active mountain belts are located near plate boundaries.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417695>

Question 31

Excess pumping of fresh water wells in coastal areas may do all of the following except

- A) draw water that is undrinkable.
- B) increase the quality of the water.
- C) draw salt water from the lower aquifer up.
- D) create a deeper cone of depression.

Answer: <https://biology-forums.com/index.php?topic=417176>

Question 32

What grade of metamorphism occurs at a depth of 1 km and a temperature of 75 degrees C.

- A) not found on Earth
- B) lithification of sedimentary rocks
- C) low-grade metamorphism
- D) medium-grade metamorphism

Answer: <https://biology-forums.com/index.php?topic=417525>

Question 33

Which type of soil is likely to have white calcite nodules?

- A) agricultural-use prairie soil
- B) desert soil
- C) rain forest soil
- D) tundra soil

Answer: <https://biology-forums.com/index.php?topic=418057>

Question 34

Dunes that form in places where vegetation anchors some of the sand and therefore limits the sand supply are

- A) parabolic dunes.
- B) linear dunes.
- C) barchan dunes.
- D) transverse dunes.

Answer: <https://biology-forums.com/index.php?topic=417915>

Question 35

Genetic classifications group features or phenomena by noting similarities in the

- A) appearance of the material.
- B) genetics of the material.
- C) processes that create them.
- D) behaviors they exhibit.

Answer: <https://biology-forums.com/index.php?topic=416822>

Question 36

"Globally, varying air pressures result from large-scale air circulation driven by heating and cooling." Evaluate this statement.

- A) It is true; air pressure increases as hot air rises and pushes against cooler air masses.
- B) It is partially true; however, it is much more complicated due to ocean currents.
- C) It is false; varying air pressure is caused solely by Earth's rotation and ocean currents.
- D) It is partially true; however, Earth's rotation also plays an important part.

Answer: <https://biology-forums.com/index.php?topic=417831>

Question 37

According to the rock cycle, precipitation turns dissolved elements into

- A) sedimentary rock.
- B) metamorphic rock.
- C) igneous rock.
- D) sediment.

Answer: <https://biology-forums.com/index.php?topic=417007>

Question 38

Planar slides typically occur along bedding planes, foliation, or joint planes oriented _____ to the slope.

- A) normal
- B) adjacent
- C) perpendicular
- D) parallel

Answer: <https://biology-forums.com/index.php?topic=418275>

Question 39

True or False: The fact that the seafloor, riverbeds and other depositional surfaces are not perfectly flat violates the Principle of Original Horizontality.

- A) True

B) False

Answer: <https://biology-forums.com/index.php?topic=417897>

Question 40

This carbonate mineral contains calcium and magnesium.

- A) calcite
- B) gypsum
- C) dolomite
- D) aragonite

Answer: <https://biology-forums.com/index.php?topic=417028>

Question 41

Present day heat flow from within Earth is twice as high as could be expected from radioactivity's contribution. This suggests that

- A) Earth used to be much hotter.
- B) more radioactivity is occurring than what scientists have accounted.
- C) volcanic action contributes more than scientists presently understand.
- D) movement within the core causes heating by friction.

Answer: <https://biology-forums.com/index.php?topic=418231>

Question 42

True or False: About one-fourth of the electricity generated in the United States comes from coal.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=416784>

Question 43

Which of the following pairs of minerals are examples of polymorphs?

- A) quartz and halite
- B) calcite and quartz
- C) halite and aragonite
- D) aragonite and calcite

Answer: <https://biology-forums.com/index.php?topic=416983>

Question 44

What might be present to cause a reddish color in a soil horizon?

- A) aluminum and iron oxides
- B) bedrock
- C) organic materials
- D) clay minerals

Answer: <https://biology-forums.com/index.php?topic=418045>

Question 45

How fast do mountains rise?

- A) 1.5 cm per year
- B) 1 to 10 cm per year
- C) As fast as finger nail growth.
- D) 3 to 10 mm per year

Answer: <https://biology-forums.com/index.php?topic=417942>

Question 46

True or False: No rocks originate from observable processes that take place at earth's surface.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=416810>

Question 47

Of the 89 naturally occurring elements, how many are needed to account for 99.7 percent of the mass of Earth's crust.

- A) 21
- B) 12
- C) 10
- D) 42

Answer: <https://biology-forums.com/index.php?topic=417049>

Question 48

How do we reconstruct ancient climate in this region?

Answer: <https://biology-forums.com/index.php?topic=417555>

Question 49

A chemical or biogenic sedimentary rock consisting of microscopic quartz is called

- A) dolostone.
- B) chert.
- C) limestone.
- D) rock gypsum.

Answer: <https://biology-forums.com/index.php?topic=417458>

Question 50

Why does the silica tetrahedron bond with one or more ions with a negative charge?

Answer: <https://biology-forums.com/index.php?topic=417070>

Question 51

The elevation of the water table will rise when

- A) recharge equals discharge.
- B) recharge is greater than discharge.
- C) recharge is less than discharge.

Answer: <https://biology-forums.com/index.php?topic=417242>

Question 52

A paper or digital record of surface and body wave motion is called a

- A) seismogram.
- B) seismic wave.
- C) seismologist.
- D) seismometer.

Answer: <https://biology-forums.com/index.php?topic=418116>

Question 53

Sedimentary rock is found

- A) in basins.
- B) at plate boundaries.
- C) in volcanic zones.
- D) everywhere on Earth.

Answer: <https://biology-forums.com/index.php?topic=416984>

Question 54

The two keys to determining the absolute age of a rock are

- A) identifying all the minerals in the rock and knowing the half-life of each mineral.
- B) knowing the composition and the geologic period the rock is from.
- C) measuring the abundance of parent isotope and measuring the abundance of daughter isotope.
- D) knowing the half-life and measuring the abundance of parent and daughter isotopes.

Answer: <https://biology-forums.com/index.php?topic=417933>

Question 55

Which feature is described as the angle between the imaginary horizontal plane and the inclined rock layer?

- A) hinge line
- B) dip

- C) strike
- D) limb

Answer: <https://biology-forums.com/index.php?topic=417319>

Question 56

"The water table always loses water when it is intersected by a stream bed that has eroded to that level." Evaluate this statement.

- A) It is false. Streams receive their water by runoff of precipitation and, in fact, supply water to the water table.
- B) It is true. Water from the water table seeps into the stream and moves downstream.
- C) It is false. Stream beds cannot erode enough to reach the water table unless there is an existing spring.
- D) It is partially true. When it rains, the water table gains water through the streambed.

Answer: <https://biology-forums.com/index.php?topic=417091>

Question 57

Hurricanes have

- A) wind volumes ten to twenty times higher than average air masses.
- B) wind volumes five to ten times higher than average air masses.
- C) wind speeds ten to twenty times higher than average wind speeds.
- D) wind speeds five to ten times higher than average wind speeds.

Answer: <https://biology-forums.com/index.php?topic=417825>

Question 58

Which option is not a piece of knowledge scientists have gained by inference from the Cape Cod experiment?

- A) Pollution travels very slowly from its source.
- B) Pollution cannot be cleaned up once it gets into the groundwater.
- C) Pollution is diluted as it moves away from the source.
- D) Pollution expands in a wide area from its source.

Answer: <https://biology-forums.com/index.php?topic=417148>

Question 59

How many angstroms can you fit in an inch?

Answer: <https://biology-forums.com/index.php?topic=417067>

Question 60

Drainage basins are separated from one another by

- A) tributaries.
- B) headwaters.
- C) divides.
- D) playa.

Answer: <https://biology-forums.com/index.php?topic=416814>

Question 61

Both John Pratt and George Airy proposed a hypothesis for surface elevations in India. How was this debate settled?

- A) Recalculations occurred after both men had died.
- B) The Scientific Society of the time voted on it.
- C) The issue has not been definitively settled.
- D) More data was gathered on account of better technology.

Answer: <https://biology-forums.com/index.php?topic=417824>

Question 62

Hurricanes coincide with areas of extremely _____.

- A) high air pressure
- B) low air pressure
- C) high air temperature
- D) low air temperature

Answer: <https://biology-forums.com/index.php?topic=417961>

Question 63

Which Earth section creates the most heat from radioactivity?

- A) the mantle
- B) the core
- C) the continental crust
- D) the oceanic crust

Answer: <https://biology-forums.com/index.php?topic=418096>

Question 64

You are asleep and are awakened to hear dishes rattling, and you feel a sensation that resembles a heavy truck striking your building. On the Modified Mercalli Intensity Scale, what intensity is the earthquake you've experienced?

- A) IX
- B) IV
- C) XI
- D) VII

Answer: <https://biology-forums.com/index.php?topic=417427>

Question 65

Choose the option that sequences the loads in order from smallest particles to largest.

- A) suspended, bed, dissolved
- B) dissolved, bed, suspended
- C) suspended, dissolved, bed
- D) dissolved, suspended, bed

Answer: <https://biology-forums.com/index.php?topic=416844>

Question 66

Which process convinced petrologists of the existence of convection before any evidence for convection in the mantle existed?

- A) dehydration melting at subduction zones
- B) conversion of peridotite to basaltic magma
- C) crystallization of diamond at high temperature and pressure
- D) tectonic action

Answer: <https://biology-forums.com/index.php?topic=417142>

Question 67

Which of the following causes the formation of large crystals such as pegmatite?

- A) high solidification factor of magma
- B) high silica content of magma
- C) high heavy metal content of magma
- D) high fluid content of magma

Answer: <https://biology-forums.com/index.php?topic=417284>

Question 68

In coastal areas you would expect _____ winds during the day and _____ during the night.

- A) offshore, offshore
- B) onshore, offshore
- C) offshore, onshore
- D) onshore, onshore

Answer: <https://biology-forums.com/index.php?topic=417968>

Question 69

Which value for the mantle is not higher than water's value?

- A) rate of flow
- B) density
- C) melting temperature
- D) viscosity

Answer: <https://biology-forums.com/index.php?topic=417843>

Question 70

A present day example of a continental-oceanic convergent plate boundary is

- A) Himalayas and Tibetan Plateau.
- B) New Zealand.
- C) Andes Mountains.
- D) Indonesia.

Answer: <https://biology-forums.com/index.php?topic=417724>

Question 71

The highest sand dune in Death Valley is about how many stories high?

- A) 50
- B) 5
- C) 35
- D) 15

Answer: <https://biology-forums.com/index.php?topic=417813>

Question 72

True or False: Ionic bonds are stronger than covalent bonds.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=416992>

Question 73

The maximum angle of a stable slope is called the angle of

- A) particle shapes.
- B) friction.
- C) cohesion.
- D) repose.

Answer: <https://biology-forums.com/index.php?topic=418291>

Question 74

Which of the following is an evaporite?

- A) rock salt
- B) dolostone
- C) chert
- D) anthracite

Answer: <https://biology-forums.com/index.php?topic=417494>

Question 75

What volume of ash, pumice, and rock from Mount Pinatubo's 1991 eruption was moved by lahars from 1991 to 1994?

- A) 1.9 cubic meters
- B) 1,900 cubic kilometers
- C) 1.9 cubic kilometers
- D) 1,900 cubic meters

Answer: <https://biology-forums.com/index.php?topic=418217>

Question 76

A stream's load consists of all of the following except

- A) float load.
- B) dissolved load.
- C) suspended load.
- D) bedload.

Answer: <https://biology-forums.com/index.php?topic=416967>

Question 77

The average polarity interval between magnetic reversals over the last 15 million years has been

- A) 20,000 years.
- B) 2,000 years.

- C) 2,000,000 years.
- D) 200,000 years.

Answer: <https://biology-forums.com/index.php?topic=417182>

Question 78

Why is there a difference in the number of faults involved at transform boundaries in the ocean and those on continents?

- A) Continental crust is weaker than oceanic crust.
- B) Plates have more room to move in the ocean than on continents.
- C) The oceanic crust has a more crystalline rock composition.
- D) The weight of the water equalizes the pressure on the oceanic crust.

Answer: <https://biology-forums.com/index.php?topic=417629>

Question 79

Which parcel of air has the highest pressure?

- A) warm dry air
- B) warm moist air
- C) cold dry air
- D) cold moist air

Answer: <https://biology-forums.com/index.php?topic=417991>

Question 80

Which feature is described as a line drawn through a series of points where the dip direction changes?

- A) dip
- B) hinge line
- C) limb
- D) strike

Answer: <https://biology-forums.com/index.php?topic=417323>

Question 81

Earth's continental crust is _____ thick.

- A) 25 - 50 km
- B) 37.5 km
- C) 25 km
- D) 50 km

Answer: <https://biology-forums.com/index.php?topic=418151>

Question 82

High pressure areas occur when

- A) wind blows.
- B) hot air rises.
- C) cold air sinks.
- D) cold air sinks or hot air rises.

Answer: <https://biology-forums.com/index.php?topic=417823>

Question 83

A rock that formed by the solidification of lava would be classified as a _____ rock.

- A) chemical
- B) hydrothermal
- C) volcanic
- D) plutonic

Answer: <https://biology-forums.com/index.php?topic=416864>

Question 84

The hard gemstones sapphire and ruby are forms of the mineral

- A) quartz.
- B) corundum.
- C) garnet.

D) diamond.

Answer: <https://biology-forums.com/index.php?topic=417005>

Question 85

The surface that marks the top of the ground water is called the

- A) unsaturated zone.
- B) water layer.
- C) water table.
- D) saturated zone.

Answer: <https://biology-forums.com/index.php?topic=417213>

Question 86

True or False: Earth pressure increases with increasing depth.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417075>

Question 87

According to the rock cycle, the process by which igneous rock becomes fragments is called

- A) lithification.
- B) metamorphism.
- C) weathering/erosion.
- D) crystallization.

Answer: <https://biology-forums.com/index.php?topic=417071>

Question 88

What evidence suggests to scientists that magma generation at convergent boundaries is different than magma generation at mid-ocean ridges?

- A) partial melting caused by water
- B) lava composition
- C) igneous action
- D) crystal size

Answer: <https://biology-forums.com/index.php?topic=417602>

Question 89

In order for an atom to substitute for dominant atoms in a crystal structure, and therefore alter its color, what must occur?

- A) The atom must be similar in size to the crystal's atoms.
- B) The atom must have the same charge as the crystal's atoms.
- C) The atoms must be close to each other on the periodic table of elements.
- D) The atom must be close in electronegativity values to the crystal's atoms.

Answer: <https://biology-forums.com/index.php?topic=416884>

Question 90

True or False: Mantle convection occurs because upward-moving rock expands more by decompression than it contracts by cooling.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417298>

Question 91

Wind velocity is typically highest at the sediment surface where

- A) there is smooth rock instead of sand.
- B) the surface is near an ocean or large lake.
- C) the surface has a steep slope.
- D) the surface is smooth with no plants.

Answer: <https://biology-forums.com/index.php?topic=417878>

Question 92

Judge the following sentence according to the criteria given below Ground water acquires the temperature of the warmest rock that it passes through

and then cools only slightly as it travels toward discharge at the surface because heat conducts from rock into water more readily than heat conducts from water into rock.

- A) The assertion and the reason are both correct, and the reason is valid.
- B) The assertion is correct but the reason is incorrect.
- C) The assertion is incorrect but the reason is correct.
- D) Both the assertion and the reason are incorrect.
- E) The assertion and the reason are both correct, but the reason is invalid.

Answer: <https://biology-forums.com/index.php?topic=417264>

Question 93

What force is most responsible for convection on Earth?

- A) elasticity
- B) density
- C) pressure
- D) gravity

Answer: <https://biology-forums.com/index.php?topic=417101>

Question 94

Which type of rock flanks Lake Superior?

- A) evaporite sedimentary rock
- B) metamorphic rock
- C) volcanic and sedimentary rock
- D) shale

Answer: <https://biology-forums.com/index.php?topic=417423>

Question 95

What evidence is there for the late delivery of water to an initially dry Earth?

- A) craters on the Moon
- B) sedimentation patterns show the early water table
- C) petroleum deposits show evidence of early water deposits
- D) abundance of iron-seeking minerals

Answer: <https://biology-forums.com/index.php?topic=418263>

Question 96

A pan is

- A) a scoop shape in a dune caused by a stream of water.
- B) an area in the desert where water has caused a depression.
- C) an elliptical or circular depression caused by deflation.
- D) a flat bench at the top of a sand dune caused by deflation.

Answer: <https://biology-forums.com/index.php?topic=417902>

Question 97

The rate of motion of lithospheric plates is comparable to _____.

- A) highway traffic
- B) grass growth
- C) stream flow
- D) fingernail growth

Answer: <https://biology-forums.com/index.php?topic=418356>

Question 98

What mineral substitution is made to produce a feldspar from quartz?

- A) sulfur-for-oxygen
- B) aluminum-for-silicon
- C) copper-for-calcium
- D) titanium-for-silicon

Answer: <https://biology-forums.com/index.php?topic=416915>

Question 99

True or False: Temperature decreases with depth below Earth's surface.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417547>

Question 100

In terms of the 100-year flood area, estimates of water depth calculations generated by computer models are uncertain. Evaluate the impact of this fact on insurers of landowners residing near that area.

- A) Though the difference in depth is likely only a small amount, it may cover a large area of land because the land has a very low slope.
- B) Landowners should only build outside the 500-year flood area, as the 100-year flood could happen at any time and insurers will not insure properties within that area.
- C) Insurers can rely on the calculations of the depth of the 100-year flood and need not investigate further.
- D) Computer calculations are not considered as reliable as observations, therefore insurers do not accept these estimates.

Answer: <https://biology-forums.com/index.php?topic=416907>

Question 101

Choose the option that puts the rock and sediment types in order from most porous to least porous.

- A) silt and clay, metamorphic rocks, volcanic rocks
- B) plutonic rocks, limestone, sand and gravel
- C) shale, sand and gravel, silt and clay
- D) sand and gravel, limestone, shale

Answer: <https://biology-forums.com/index.php?topic=417077>

Question 102

What explains the lack of volcanic gases, such as sulfur dioxide, hydrogen sulfide, and hydrogen chloride, in Earth's atmosphere?

- A) reactions with oxygen
- B) crystallization reactions
- C) radioactivity
- D) weathering reactions

Answer: <https://biology-forums.com/index.php?topic=418269>

Question 103

Judge the following sentences according to the criteria given below. A student disputes the process of mantle convection. They argue that rock is solid and cannot flow. They challenge their classmates to provide evidence for present day mantle convection. A classmate shows them a seismic tomographic map and cross section showing variations in S-wave velocities.

- A) The seismic tomographic map and cross section do show evidence for present day mantle convection and offers a strong affirmation of mantle convection.
- B) The seismic tomographic map and cross section shows evidence for mantle convection in the past but not for present day mantle convection.
- C) The seismic tomographic map and cross section do show evidence present day mantle convection but this data cannot be used as evidence for mantle convection.
- D) The seismic tomographic map and cross section has a random pattern of S-wave velocities and offers no evidence for anything.

Answer: <https://biology-forums.com/index.php?topic=417269>

Question 104

The _____ is Earth's thickest layer.

- A) crust
- B) core
- C) lithosphere
- D) mantle

Answer: <https://biology-forums.com/index.php?topic=418352>

Question 105

Which of the following factors does not favor motion and slope instability?

- A) increasing slope
- B) the presence of water

- C) smoother surfaces
- D) the presence of vegetation

Answer: <https://biology-forums.com/index.php?topic=418281>

Question 106

Which type of stress always occurs along faults, when the entire block is experiencing either tension or compression?

- A) elongating
- B) shortening
- C) normal
- D) shear

Answer: <https://biology-forums.com/index.php?topic=417370>

Question 107

An economically important igneous rock that is characterized by very large crystals is called

- A) tuff.
- B) pegmatite.
- C) agglomerate.
- D) granite.

Answer: <https://biology-forums.com/index.php?topic=417270>

Question 108

The snowline is _____ at high latitudes where year-round temperatures are _____.

- A) highest, warmer
- B) lowest, cooler
- C) highest, cooler
- D) lowest, warmer

Answer: <https://biology-forums.com/index.php?topic=417496>

Question 109

Which layer of earth is broken into discrete, hundred-kilometer-thick slabs called plates?

- A) the mantle
- B) the crust
- C) the lithosphere
- D) the asthenosphere

Answer: <https://biology-forums.com/index.php?topic=418341>

Question 110

An important component in igneous rock texture is the _____ of crystals.

- A) size
- B) mineralogy
- C) color
- D) distribution

Answer: <https://biology-forums.com/index.php?topic=417196>

Question 111

The Richter magnitude is based on

- A) the maximum amplitude recorded.
- B) the distance from the epicenter.
- C) the amount of damage caused.
- D) the difference in arrival times of S and P waves.

Answer: <https://biology-forums.com/index.php?topic=417515>

Question 112

The deterioration of surface rock can be attributed to

- A) weathering.
- B) volcanic action.
- C) tectonic action.

D) hydrothermal forces.

Answer: <https://biology-forums.com/index.php?topic=416927>

Question 113

Why are so few volcanoes mapped in the middle of the oceans?

- A) The middle of the oceans corresponds with the middle of tectonic plates, so there are only hot-spot volcanoes there.
- B) There are only convergent plate boundaries under the ocean, which are less likely to have volcanoes than transform or divergent boundaries.
- C) Geologists cannot pinpoint the locations of many recently active seafloor volcanoes.
- D) There are only divergent plate boundaries under the ocean, which are less likely to have volcanoes than transform or convergent boundaries.

Answer: <https://biology-forums.com/index.php?topic=417572>

Question 114

What was wrong with Benoit de Maillet's method of determining the age of Earth?

- A) He did not use the scientific method and instead made guesses.
- B) He studied the knowledge and assumptions of the scientists of his time and before.
- C) His measuring instruments were of poor quality so he could not collect accurate data.
- D) He based his theories on personal observations without taking into account actual evidence.

Answer: <https://biology-forums.com/index.php?topic=417826>

Question 115

Approximately what percentage of Earth's radius have geologists studied to date?

- A) 1%
- B) 5%
- C) 10%
- D) 90%

Answer: <https://biology-forums.com/index.php?topic=418028>

Question 116

Which city has already subsided below sea level?

- A) Miami
- B) Los Angeles
- C) New Orleans
- D) New York

Answer: <https://biology-forums.com/index.php?topic=417709>

Question 117

Where was the southerly track of northern winter storms during this time period?

Answer: <https://biology-forums.com/index.php?topic=417558>

Question 118

Radioactive dating is used to determine the age of fossil-bearing sedimentary beds

- A) by using potassium-argon dating on the sedimentary rock.
- B) by using carbon dating on the sedimentary rock.
- C) by dating adjacent metamorphic or volcanic layers.
- D) by comparing the fossils to known fossils in other areas.

Answer: <https://biology-forums.com/index.php?topic=417884>

Question 119

Which statement about tsunami is false?

- A) Tsunami cannot be caused by wind.
- B) Tsunami are almost impossible to detect in the deep ocean.
- C) Tsunami increase in height as they approach the shore.
- D) Tsunami move faster as they approach shore.

Answer: <https://biology-forums.com/index.php?topic=417607>

Question 120

What apparent difference is there between a gneiss that is formed from igneous rock and one formed from sedimentary rock?

- A) color
- B) mineral content
- C) crystal size
- D) age

Answer: <https://biology-forums.com/index.php?topic=417694>

Question 121

X-rays are not used to study the geology of Earth. Why?

- A) X-rays only penetrate living flesh.
- B) X-rays do not extend to required distances of study.
- C) X-rays do not produce three-dimensional images.
- D) Mineral matter is not transparent to X-rays.

Answer: <https://biology-forums.com/index.php?topic=417999>

Question 122

What is the total displacement each year between the Pacific and North American plates?

- A) 5.6 cm per year
- B) 0.8 cm per year
- C) 7.4 cm per year
- D) 3.6 cm per year

Answer: <https://biology-forums.com/index.php?topic=417626>

Question 123

Which of the following practices by farmers decreases erosion?

- A) tilling
- B) removing weeds
- C) planting ground cover crops
- D) allowing fields to lie empty and fallow

Answer: <https://biology-forums.com/index.php?topic=418109>

Question 124

The principal source of aluminum is the mineral

- A) corundum.
- B) feldspar.
- C) bauxite.
- D) calcite.

Answer: <https://biology-forums.com/index.php?topic=417002>

Question 125

What aluminosilicate polymorph is stable at a pressure of 1.5 kilobars and a temperature of 600 degrees C?

- A) kyanite
- B) sillimanite
- C) andalusite
- D) sillimanite and kyanite

Answer: <https://biology-forums.com/index.php?topic=417559>

Question 126

Over the last 275 years, the relative sea-level rise in Venice has been

- A) about 30 centimeters.
- B) about 50 centimeters.
- C) about 70 centimeters.
- D) about 120 centimeters.

Answer: <https://biology-forums.com/index.php?topic=417713>

Question 127

Which of the following is the most similar between soil and regolith?

- A) support of plant life

- B) horizons
- C) biologic activity
- D) sediment content

Answer: <https://biology-forums.com/index.php?topic=418041>

Question 128

An sand dune is considered "active" when

- A) it is being moved by wind.
- B) it is being dissolved into the sea.
- C) it is being colonized by new plants.
- D) it has been formed by volcanic activity.

Answer: <https://biology-forums.com/index.php?topic=417834>

Question 129

In most cases, the distance between the seismically slow upwelling zone and the closest downwelling zone is

- A) about the same as the thickness of the mantle.
- B) much greater than the thickness of the convecting mass.
- C) much less than the thickness of the convecting mass.
- D) about the same as the thickness of the convecting mass.

Answer: <https://biology-forums.com/index.php?topic=417149>

Question 130

Why are airplane paths curved?

Answer: <https://biology-forums.com/index.php?topic=418033>

Question 131

True or False: Minerals with covalent bonds are more resistant to weathering than minerals with ionic bonds.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417353>

Question 132

Ground water can seep out at the surface

- A) when the water table is low because the land surface is low.
- B) when runoff enters the channel during and shortly after rainfall.
- C) when the water table intersects the ground surface.
- D) when the water table is high because the land surface is high.

Answer: <https://biology-forums.com/index.php?topic=417216>

Question 133

A student who had once lived in Alaska describes the following personal experience: "The shaking of the ground beneath my house caused compaction of the particles, which caused a later mass movement resulting in my house breaking apart." Evaluate this statement.

- A) It is probably false. Most breaking action occurs during an earthquake, not after the earthquake.
- B) The entire statement is true.
- C) It is more likely that liquefaction, caused by shaking regolith that contains water, caused the mass movement than it is likely that it was caused by compaction.
- D) It is probably true, except that it is unlikely that the mass movement would be strong enough to break a house apart.

Answer: <https://biology-forums.com/index.php?topic=418208>

Question 134

How do scientists measure the age of rocks at mid-ocean ridges?

- A) radioactive dating methods
- B) fossil stratification and the principle of horizontality
- C) comparison of rock samples on mountain ranges
- D) magnetic polarity measurements

Answer: <https://biology-forums.com/index.php?topic=417585>

Question 135

Tides are principally caused by

- A) Earth's revolution of the Sun.
- B) velocity.
- C) friction.
- D) gravity.

Answer: <https://biology-forums.com/index.php?topic=417644>

Question 136

Which mineral property depends on bond type and the spacing of atoms within the crystal?

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

Answer: <https://biology-forums.com/index.php?topic=416965>

Question 137

Which is not a factor that determines if bond strength will increase?

- A) close distance of atoms
- B) greater charge of particles
- C) larger nuclei in atoms
- D) larger size of molecules

Answer: <https://biology-forums.com/index.php?topic=416890>

Question 138

Why is the iron sulfide mineral pyrite, or "fool's gold" not commonly used as an ore of iron.

- A) The separation of iron and sulfur is harmful to the environment.
- B) It is too difficult to separate the iron and sulfur atoms in pyrite.
- C) Pyrite contains impurities of lead, copper, and zinc.
- D) Pyrite is not as abundant in Earth's crust as other iron minerals.

Answer: <https://biology-forums.com/index.php?topic=417008>

Question 139

During the formation of the solar system, approximately how many planetary embryos were needed to make a planet with the mass of Earth?

- A) 0.01 to 0.1
- B) 0.1 to 1
- C) 1 to 10
- D) 10 to 100

Answer: <https://biology-forums.com/index.php?topic=418294>

Question 140

Where are contact metamorphism rocks found?

- A) in places of high pressure
- B) next to lava flows or igneous intrusions
- C) at the top of cliffs and mountains
- D) next to sedimentary rocks

Answer: <https://biology-forums.com/index.php?topic=416960>

Question 141

What is the approximate angle between superplumes around Earth's core?

- A) 45
- B) 90
- C) 135
- D) 180

Answer: <https://biology-forums.com/index.php?topic=417648>

Question 142

Because of its hardness, this oxide mineral is commonly used in abrasives.

- A) hematite
- B) diamond
- C) quartz
- D) corundum

Answer: <https://biology-forums.com/index.php?topic=417023>

Question 143

How does isostasy explain the formation of rift valleys?

- A) density decreases under compression
- B) root decreases under compression
- C) root decreases under tension
- D) density decreases under tension

Answer: <https://biology-forums.com/index.php?topic=417838>

Question 144

What aluminosilicate polymorph is stable at a pressure of 3.5 kilobars and a temperature of 550 degrees C?

- A) andalusite, sillimanite and kyanite
- B) sillimanite
- C) kyanite
- D) andalusite

Answer: <https://biology-forums.com/index.php?topic=417568>

Question 145

Which type of ground water would have the least amount of dissolved minerals?

- A) water that had flowed quickly through the aquifer
- B) water that had been underground for a long period of time
- C) hot water
- D) water from deep in the Earth

Answer: <https://biology-forums.com/index.php?topic=417156>

Question 146

Which of the following is not an important real-Earth variable that is included in computer simulations of convection?

- A) Earth is spherical.
- B) Earth rocks vary in density.
- C) There are internal sources of heat in the mantle.
- D) The viscosity increases below the boundary between the upper and lower mantle.

Answer: <https://biology-forums.com/index.php?topic=417151>

Question 147

Laboratory experiments indicate that the density of Earth _____ a very dense peridotite at Earth's core.

- A) can be explained by
- B) under Lunar conditions, reflects
- C) is relativistic with
- D) cannot be explained by

Answer: <https://biology-forums.com/index.php?topic=418147>

Question 148

A blocky clastic sedimentary rock composed of mud would be called a

- A) claystone.
- B) mudstone.
- C) siltstone.
- D) shale.

Answer: <https://biology-forums.com/index.php?topic=417404>

Question 149

Which isotope is the least stable?

- A) Carbon 13
- B) Nitrogen 14
- C) Carbon 14
- D) Carbon 12

Answer: <https://biology-forums.com/index.php?topic=417845>

Question 150

Choose the option that correctly orders the minerals from most easily weathered to most weather resistant.

- A) quartz, halite, biotite
- B) amphibole, feldspar, quartz
- C) gypsum, pyroxene, feldspar
- D) olivine, calcite, quartz

Answer: <https://biology-forums.com/index.php?topic=417362>

Question 151

Which of the following stream properties tends to increase downstream?

- A) stream power per area of stream bed
- B) shear stress
- C) grain size of bedload
- D) sediment load

Answer: <https://biology-forums.com/index.php?topic=416985>

Question 152

Which is not a clue indicating that hornfels forms under conditions of high temperature but not high pressure?

- A) cleavage planes
- B) chemical composition
- C) lack of foliation
- D) grain size

Answer: <https://biology-forums.com/index.php?topic=417688>

Question 153

The boundary between the steep part and the flat part of a beach is called

- A) a beach face.
- B) a wave-cut platform.
- C) a berm crest.
- D) a berm.

Answer: <https://biology-forums.com/index.php?topic=417623>

Question 154

The mass of a mineral divided by its volume is called

- A) specific gravity.
- B) luster.
- C) hardness.
- D) density.

Answer: <https://biology-forums.com/index.php?topic=416944>

Question 155

Two billion years ago, radioactive heat production was

- A) half of what it is today.
- B) four times what it is today.
- C) twice what it is today.
- D) the same as it is today.

Answer: <https://biology-forums.com/index.php?topic=418237>

Question 156

True or False: In order to produce sand-size rock fragments the crystal- or grain-size in the weathered rock must be larger than 2 mm.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417437>

Question 157

The reaction of feldspar with water is an example of

- A) dissolution.
- B) exfoliation.
- C) oxidation.
- D) hydrolysis.

Answer: <https://biology-forums.com/index.php?topic=417302>

Question 158

What is the amplitude in an earthquake?

Answer: <https://biology-forums.com/index.php?topic=417530>

Question 159

What grade of metamorphism occurs at a depth of 19 km and a temperature of 700 degrees C.

- A) medium-grade metamorphism
- B) high-grade metamorphism
- C) magma
- D) low-grade metamorphism

Answer: <https://biology-forums.com/index.php?topic=417535>

Question 160

Oxygen-isotope data has a pattern that led scientists to examine which other type of data in a search for the cause of ice ages?

- A) sun-activity data
- B) planetary-movement data
- C) continental-movement data
- D) rock-isotope data

Answer: <https://biology-forums.com/index.php?topic=417444>

Question 161

How do a slide and a slump differ?

- A) speed of the flow
- B) shape of the surface
- C) type of rock
- D) presence of water

Answer: <https://biology-forums.com/index.php?topic=418174>

Question 162

True or False: All past changes in sea level were due to the growth and demise of glaciers.

Answer: <https://biology-forums.com/index.php?topic=417939>

Question 163

An elongate bedrock ridge eroded by a glacier parallel to the direction of glacier movement is called a(n)

- A) roche moutonnee.
- B) horn.
- C) arete.
- D) cirque.

Answer: <https://biology-forums.com/index.php?topic=417468>

Question 164

If a great amount of precipitation falls on the drainage basin of a river that is surrounded by well-established trees, what is likely to happen?

- A) The base level of the profile will be lowered.
- B) The slope of the base level of the stream profile will increase.
- C) The base level of the profile will rise.
- D) The slope of the base level of the stream profile will decrease.

Answer: <https://biology-forums.com/index.php?topic=416928>

Question 165

True or False: A mineral may vary in color, but its streak color is always the same.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=416959>

Question 166

The process that converts sediment into rock starts off with

- A) metamorphism.
- B) cementation.
- C) crystallization.
- D) compaction.

Answer: <https://biology-forums.com/index.php?topic=417389>

Question 167

What fraction of the world's lead and zinc came from deposits that had precipitated in the pore spaces of sedimentary rocks in the mid-twentieth century?

- A) one quarter
- B) one half
- C) two thirds
- D) one third

Answer: <https://biology-forums.com/index.php?topic=417173>

Question 168

Glacier movement is not due to

- A) plastic flow.
- B) friction.
- C) basal slip.
- D) gravity.

Answer: <https://biology-forums.com/index.php?topic=417336>

Question 169

Piles of rock, debris and earth that pile up at the base of steep slopes are called

- A) earth mound.
- B) debris jumble.
- C) rockpile.
- D) talus.

Answer: <https://biology-forums.com/index.php?topic=418264>

Question 170

True or False: During periods of magnetic reversals your compass needle would point south rather than north.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417277>

Question 171

True or False: Geologic processes have been active in the past that humans have not witnessed.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418369>

Question 172

A chemical or biogenic sedimentary rock consisting of dolomite is called

- A) rock gypsum.
- B) dolostone.
- C) limestone.
- D) rock salt.

Answer: <https://biology-forums.com/index.php?topic=417455>

Question 173

Have you ever made a convection cell? What about when you boil water for pasta?

Answer: <https://biology-forums.com/index.php?topic=417313>

Question 174

At what location is the most wave energy expended?

- A) bays
- B) tidal inlets
- C) lagoons
- D) barrier islands

Answer: <https://biology-forums.com/index.php?topic=417636>

Question 175

Which phenomenon does not usually cause graded beds?

- A) storm waves
- B) turbidity currents
- C) tides
- D) river floods

Answer: <https://biology-forums.com/index.php?topic=417504>

Question 176

What grade of metamorphism occurs at a depth of 5 km and a temperature of 300 degrees C.

- A) high-grade metamorphism
- B) medium-grade metamorphism
- C) low-grade metamorphism
- D) not found on Earth

Answer: <https://biology-forums.com/index.php?topic=417531>

Question 177

Waves are considered elastic because

- A) they do not permanently deform the water.
- B) they are cyclical.
- C) they do permanently deform the water.
- D) they bounce back.

Answer: <https://biology-forums.com/index.php?topic=418036>

Question 178

Differentiation of planetary embryos results in denser _____ cores and less-dense _____ mantles.

- A) silicate, metallic
- B) silicate, non-silicate
- C) non-metallic, metallic
- D) metallic, silicate

Answer: <https://biology-forums.com/index.php?topic=418309>

Question 179

Which type of rock did the Vulcanist doctrine explain incorrectly?

- A) chemical sedimentary rocks
- B) extrusive igneous rocks

- C) contact metamorphic rocks
- D) intrusive igneous rocks

Answer: <https://biology-forums.com/index.php?topic=417053>

Question 180

Which of the following is true of divergent and convergent plate movement?

- A) Convergent plate movement is less symmetrical than divergent plate movement.
- B) Both plates have boundaries.
- C) Material is destroyed with both plate movements.
- D) The direction of plate movement is the same.

Answer: <https://biology-forums.com/index.php?topic=417594>

Question 181

The easiest way to distinguish a sedimentary rock from other types is by its

- A) grain size.
- B) bedding.
- C) location.
- D) color.

Answer: <https://biology-forums.com/index.php?topic=416939>

Question 182

True or False: Earthquake body wave records allow scientists to construct an image of Earth's interior.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418124>

Question 183

The safest thing to do if you are caught in a rip current is to swim

- A) perpendicular to the longshore current.
- B) parallel to the current.
- C) fight the current.
- D) parallel to the shore.

Answer: <https://biology-forums.com/index.php?topic=417756>

Question 184

Most of Minnesota's lakes are

- A) formed by blockage of a valley with an end moraine.
- B) formed by outwash streams.
- C) formed by glacial overdeepening.
- D) kettle lakes.

Answer: <https://biology-forums.com/index.php?topic=417414>

Question 185

Which of the following is not an expected result of rising sea levels?

- A) undrinkable ground water in wells in coastal areas
- B) rising islands
- C) flooding along inland stream banks
- D) landward migration of barrier islands

Answer: <https://biology-forums.com/index.php?topic=417693>

Question 186

Which is not a common component of explanations for mountains?

- A) plate-margin processes
- B) motion in the mantle
- C) sedimentation
- D) vertical isostatic adjustments

Answer: <https://biology-forums.com/index.php?topic=417871>

Question 187

In an earthquake, what causes the most damage and deaths?

Answer: <https://biology-forums.com/index.php?topic=417548>

Question 188

A rock that is 20 million years old comes from the _____ Epoch.

- A) Miocene
- B) Paleocene
- C) Cretaceous
- D) Jurassic

Answer: <https://biology-forums.com/index.php?topic=417962>

Question 189

What maximum uplift occurred on a thrust fault in Alaska during a single earthquake in 1899?

- A) 8 m
- B) 1.5 m
- C) 25 cm
- D) 15 m

Answer: <https://biology-forums.com/index.php?topic=417887>

Question 190

Which location would contain the most well-rounded rocks?

- A) an avalanche site
- B) a fast-flowing river
- C) a quiet lake shore
- D) a beach shore

Answer: <https://biology-forums.com/index.php?topic=417476>

Question 191

Which is not a piece of primary evidence in favor of the mantle-plume hypothesis?

- A) volcanic locations
- B) plate velocity
- C) basalt composition
- D) hot spot volcano types

Answer: <https://biology-forums.com/index.php?topic=417640>

Question 192

Why is the lower mantle thicker than the upper mantle?

Answer: <https://biology-forums.com/index.php?topic=417316>

Question 193

What is the recurrence interval that is considered acceptable by insurers for development on flood plains?

- A) 50 years
- B) 100 years
- C) 500 years
- D) 10 years

Answer: <https://biology-forums.com/index.php?topic=416904>

Question 194

True or False: Revisions of the absolute ages of the geologic time-scale boundaries exposes flaws inherent to the geologic time-scale.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417951>

Question 195

When was the longest interglacial period?

Answer: <https://biology-forums.com/index.php?topic=417571>

Question 196

True or False: Physical weathering involves reactions between minerals and water to produce dissolved ions and new minerals.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=416879>

Question 197

Which option correctly matches the scientists with what they study?

- A) stratigraphers: study ocean currents; mineralogists: study minerals; petrologists: study processes that form rock
- B) geomorphologists: study the origin of landscapes; paleontologists: study fossilized organisms; geophysicists: study the physical properties of rock
- C) hydrogeologist: study ground water; environmental geologists: study the growth of vegetation; geomorphologists: study the shapes of fossil species
- D) geochemists: determine the age of Earth materials; petrologists: study petroleum; mineralogists: study minerals

Answer: <https://biology-forums.com/index.php?topic=418321>

Question 198

On the Modified Mercalli Intensity Scale, destroyed bridges, bent rails, and most buildings destroyed are indicative of _____ intensity?

- A) IV
- B) VII
- C) XI
- D) IX

Answer: <https://biology-forums.com/index.php?topic=417424>

Question 199

Which of the following terms is not a classification based on particle size?

- A) rock
- B) debris
- C) regolith
- D) earth

Answer: <https://biology-forums.com/index.php?topic=418176>

Question 200

Aragonite and dolomite are what type of mineral?

- A) sulfide
- B) carbonate
- C) silicate
- D) oxide

Answer: <https://biology-forums.com/index.php?topic=416930>

Question 201

Judge the following sentence according to the criteria given below It is usually very easy to piece together a complete history of a regions older glaciations because the latest glacial advance typically preserves the older deposits.

- A) Both the assertion and the reason are incorrect.
- B) The assertion is incorrect but the reason is correct.
- C) The assertion and the reason are both correct, but the reason is invalid.
- D) The assertion and the reason are both correct, and the reason is valid.
- E) The assertion is correct but the reason is incorrect.

Answer: <https://biology-forums.com/index.php?topic=417477>

Question 202

Most economically valuable metals are processed from

- A) oxide and silicate ores.
- B) ionic compounds.
- C) silicate ores.

D) sulfide and oxide ores.

Answer: <https://biology-forums.com/index.php?topic=416933>

Question 203

Shaking regolith will have the effect of

- A) compaction, both wet and dry.
- B) liquefaction, both wet and dry.
- C) compaction when dry, and liquefaction when wet.
- D) compaction when wet, and liquefaction when dry.

Answer: <https://biology-forums.com/index.php?topic=418206>

Question 204

What is defined here?

"mixtures of ice and rock like dirty snowballs"

- A) meteors
- B) comets
- C) asteroids
- D) meteorites

Answer: <https://biology-forums.com/index.php?topic=418225>

Question 205

The distinction between a joint and a fault is

- A) the distance that rock moves on each side of the line.
- B) joints do not involve breaking rock and faults do.
- C) the separation distance.
- D) joints are filled in with precipitated mineral crystals and faults are not.

Answer: <https://biology-forums.com/index.php?topic=417338>

Question 206

A soil with a thin A horizon, a thick O horizon and a B horizon with considerable clay content is most likely a _____ soil.

- A) forest
- B) wetland
- C) grassland
- D) desert
- E) rainforest

Answer: <https://biology-forums.com/index.php?topic=418132>

Question 207

What caused the debris avalanche from Mount St. Helens in 1980?

- A) volcanic eruption
- B) rainfall
- C) earthquake
- D) magma intrusion

Answer: <https://biology-forums.com/index.php?topic=418226>

Question 208

Which process makes it the most difficult to trace metamorphic rocks to their parent rocks?

- A) melting
- B) contact metamorphism
- C) fluid metamorphism
- D) regional metamorphism

Answer: <https://biology-forums.com/index.php?topic=417698>

Question 209

Which of the following is a mineral?

- A) obsidian
- B) sugar

- C) glass
- D) graphite

Answer: <https://biology-forums.com/index.php?topic=416872>

Question 210

The type of boundary mountains are associated with is

- A) convergent boundaries.
- B) transform boundaries.
- C) divergent boundaries.
- D) microplate boundaries.

Answer: <https://biology-forums.com/index.php?topic=417874>

Question 211

True or False: The Mohs hardness scale is a relative scale and not an absolute scale.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=416962>

Question 212

Why is gemology considered a separate field from geology or mineralogy?

Answer: <https://biology-forums.com/index.php?topic=417082>

Question 213

A present day example of an oceanic-oceanic convergent plate boundary is

- A) Hawaii.
- B) Indonesia.
- C) Andes Mountains.
- D) Appalachian Mountains.

Answer: <https://biology-forums.com/index.php?topic=417721>

Question 214

What is GPS and what does it do?

Answer: <https://biology-forums.com/index.php?topic=418002>

Question 215

True or False: Earth's magnetic field very closely, but not exactly, resembles the field of a horse-shoe magnet.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417271>

Question 216

Ice moves _____ in the zone of accumulation and _____ in the zone of wastage.

- A) downward, downward
- B) upward, downward
- C) upward, upward
- D) downward, upward

Answer: <https://biology-forums.com/index.php?topic=417523>

Question 217

Far-western North America contains a variety of fault bounded crustal blocks called _____ terranes.

- A) seamount
- B) accreted
- C) ridge
- D) island arc

Answer: <https://biology-forums.com/index.php?topic=417994>

Question 218

What is physical geology?

- A) study of the physical and chemical workings of Earth
- B) study of Earth's interior crust
- C) study of the physical appearance and workings of Earth
- D) study of the physical surface for use in mapping

Answer: <https://biology-forums.com/index.php?topic=418319>

Question 219

Which rock type does not have a strong affinity for radioactive elements?

- A) metamorphic
- B) felsic igneous
- C) sedimentary
- D) mafic igneous

Answer: <https://biology-forums.com/index.php?topic=418100>

Question 220

One of the fastest geologic processes is

- A) landslide movement.
- B) erosion of river valleys.
- C) sediment accumulation in the deep sea.
- D) ground breaking during earthquake.

Answer: <https://biology-forums.com/index.php?topic=416786>

Question 221

Which resource is not usually obtained from sedimentary rocks?

- A) water
- B) oil
- C) gem crystals
- D) coal

Answer: <https://biology-forums.com/index.php?topic=417328>

Question 222

Which is not a definition of soil?

- A) the upper layer disturbed by tools for crop cultivation
- B) any surface material that is not solid rock
- C) any surface material that is solid rock
- D) the medium for plant growth

Answer: <https://biology-forums.com/index.php?topic=418023>

Question 223

The stresses responsible for present-day earthquakes in northeastern North America are a result of

- A) ancient fault movements.
- B) glacial rebound.
- C) tectonic convergence.
- D) tectonic divergence.

Answer: <https://biology-forums.com/index.php?topic=417935>

Question 224

Sedimentary rocks contain the _____ products of other rocks.

- A) physical
- B) cemented
- C) chemical
- D) weathering

Answer: <https://biology-forums.com/index.php?topic=416837>

Question 225

Against which variable force must work be done to raise mountains?

- A) the magnetic attraction of Earth's core, which will vary according to the composition of the rock in the mountains being pushed up
- B) gravitational pull, which varies with distance from Earth's core
- C) the rigidity and tensile strength of the rock, which varies with rock type
- D) the attractive force of the mantle and the melting and subduction of the Earth's crust at boundary zones, which varies according to plate speed

Answer: <https://biology-forums.com/index.php?topic=418348>

Question 226

Which landform is described as a steep-sided amphitheater depression or half bowl high on a mountain side at the head of a glacially eroded valley?

- A) an arete
- B) a cirque
- C) a horn
- D) a tarn

Answer: <https://biology-forums.com/index.php?topic=417351>

Question 227

Descriptive classifications

- A) are only used in Geology.
- B) group items of similar appearance.
- C) describe classifications.
- D) note similarities in creation.

Answer: <https://biology-forums.com/index.php?topic=416819>

Question 228

Which of the following is not a way that atoms achieve a full outer layer of electrons?

- A) sharing electrons with another atom
- B) transferring electrons from an inner level
- C) gaining extra electrons from another atom
- D) transferring electrons to another atom

Answer: <https://biology-forums.com/index.php?topic=416845>

Question 229

How many years were required for a magnetic reversal to occur according to Glatzmaier and Roberts' computer simulation?

- A) 500
- B) 1,000
- C) 20,000
- D) 200,000

Answer: <https://biology-forums.com/index.php?topic=417222>

Question 230

Cohesion is a particularly important component of resisting strength in _____ minerals.

- A) iron-rich
- B) clay
- C) water-bearing
- D) hard

Answer: <https://biology-forums.com/index.php?topic=418289>

Question 231

Which of the following was not a revolutionary advance in science?

- A) plate tectonic theory
- B) the gasoline engine
- C) discovery of the genetic code
- D) the pasteurization process

Answer: <https://biology-forums.com/index.php?topic=418340>

Question 232

How is the valuable part of an ore mineral removed?

- A) by breaking its mineral bonds
- B) by dissolving the ore in water and acid
- C) by using a magnet to remove the metal
- D) by heating the ore in boiling temperatures

Answer: <https://biology-forums.com/index.php?topic=416908>

Question 233

What event was a major factor in the development of the fertile soils of the upper Midwest and Northeast United States?

- A) volcanic eruptions
- B) glaciation
- C) erosion by meandering rivers
- D) tectonic forces

Answer: <https://biology-forums.com/index.php?topic=418077>

Question 234

True or False: In a plunging fold the hinge line is vertical.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417457>

Question 235

True or False: When describing the nature of materials involved in gravity-driven, downslope movement in order to classify the event it is crucial to describe the material after it has moved downslope.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418252>

Question 236

Evaluate the following statement. "Beaches are often found at headlands."

- A) This statement is probably false; beaches are more often deposited in bays.
- B) This statement is probably true but incomplete; beaches are found on all sorts of shoreline features.
- C) This statement is true.
- D) This statement is false; beaches are only deposited on long, straight stretches of coast.

Answer: <https://biology-forums.com/index.php?topic=417611>

Question 237

Which rock is described below?

"This rock is shiny and contains scattered, well-formed crystals of garnet, staurolite, and kyanite."

- A) phyllite
- B) gneiss
- C) schist
- D) slate

Answer: <https://biology-forums.com/index.php?topic=417669>

Question 238

How many metric tons of soil erode away each year in the United States?

- A) 1 billion
- B) 4 billion
- C) 14 billion
- D) 24 billion

Answer: <https://biology-forums.com/index.php?topic=418113>

Question 239

A rock that forms over large areas primarily by recrystallization due to increasing temperature and pressure would be classified as a _____ rock.

- A) regional metamorphic
- B) contact metamorphic
- C) volcanic igneous
- D) plutonic igneous

Answer: <https://biology-forums.com/index.php?topic=416858>

Question 240

A hook shape may form on a spit because of

- A) wave refraction.
- B) wave deflection.
- C) erosion.
- D) rip currents.

Answer: <https://biology-forums.com/index.php?topic=417627>

Question 241

True or False: The rocks that originated during or immediately after Earth's planetary formation are not preserved for study.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418286>

Question 242

Which soil-forming material would produce the most fertile soil?

- A) volcanic ash
- B) sand minerals
- C) granite grains
- D) clay minerals

Answer: <https://biology-forums.com/index.php?topic=418075>

Question 243

13 The block of rock above an inclined fault plane is called the _____.

- A) strike-wall
- B) footwall
- C) hanging-wall
- D) dipwall

Answer: <https://biology-forums.com/index.php?topic=417475>

Question 244

What impact did the floods have on the Snake River?

Answer: <https://biology-forums.com/index.php?topic=417543>

Question 245

Which of the following statements do not apply to flash floods

- A) form from high-intensity rainfall in small, steep, drainage basins.
- B) progressively inundate larger and larger areas of the floodplain.
- C) are hard to predict because they happen so unexpectedly.
- D) are deepest in narrow bedrock canyons.

Answer: <https://biology-forums.com/index.php?topic=417000>

Question 246

A chemical or biogenic sedimentary rock consisting of calcite is called

- A) rock salt.
- B) limestone.
- C) rock gypsum.
- D) chert.

Answer: <https://biology-forums.com/index.php?topic=417452>

Question 247

"Air masses that move over deserts are dry." Evaluate this statement.

- A) This statement is false.
- B) This statement is true.
- C) This statement is partially true; coastal deserts often have large wet-air masses move over them, but the air mass does not drop moisture.
- D) This statement is partially true; however, rain-shadow deserts carry moist coastal air across the desert without dropping the moisture from the air mass.

Answer: <https://biology-forums.com/index.php?topic=417866>

Question 248

Which of the following has the lowest viscosity?

- A) continental crust
- B) lithosphere
- C) oceanic crust
- D) asthenosphere

Answer: <https://biology-forums.com/index.php?topic=417263>

Question 249

Which action would a sheet of water most likely perform?

- A) formation of a rill
- B) general flooding of soil
- C) formation of a gully
- D) formation of a stream

Answer: <https://biology-forums.com/index.php?topic=418111>

Question 250

What fraction of North America was covered by ice at the peak of the last ice age?

- A) 1/4
- B) 1/3
- C) 2/3
- D) 5/6

Answer: <https://biology-forums.com/index.php?topic=417429>

Question 251

Which mineral does not contain abundant potassium?

- A) feldspar
- B) calcite
- C) biotite
- D) muscovite

Answer: <https://biology-forums.com/index.php?topic=417860>

Question 252

The Mid-Atlantic Ridge is an example of

- A) a divergent boundary.
- B) a convergent boundary.
- C) neither a divergent, convergent or transform boundary.
- D) a transform boundary.

Answer: <https://biology-forums.com/index.php?topic=416796>

Question 253

How do geologists know that the magnetic field of Earth has changed constantly over time?

- A) by crystals that have formed in metamorphic rocks
- B) by records kept in magnetic rock-forming minerals
- C) by the direction of historical lava flows, which they have been able to date with radioactive dating methods
- D) by analyzing and extrapolating records kept by scientists since the 1600s

Answer: <https://biology-forums.com/index.php?topic=417169>

Question 254

What is true of Iceland?

- A) Iceland is stretching at a rate of about 4 mm per year due to expansion at the Mid-Atlantic Ridge.
- B) Iceland is contracting at a rate of about 4 m per year due to melting at the Mid-Atlantic Ridge.
- C) Iceland is contracting at a rate of about 4 m per year due to expansion at the Mid-Atlantic Ridge.
- D) Iceland is contracting at a rate of about 4 mm per year due to melting at the Mid-Atlantic Ridge.

Answer: <https://biology-forums.com/index.php?topic=417581>

Question 255

Which of the following is not part of dust?

- A) microbes
- B) pollen and spores
- C) water molecules
- D) mineral particles

Answer: <https://biology-forums.com/index.php?topic=417805>

Question 256

What do "shadows" on TEM images represent?

- A) where there are no objects
- B) where light does not pass through
- C) where electrons are stopped by atoms
- D) where electrons pass through

Answer: <https://biology-forums.com/index.php?topic=416830>

Question 257

Why did scientists reject Wegener's idea about how continents moved from Pangea to their present locations?

- A) Scientists did not believe in uplift of continents from the ocean floor.
- B) Scientists did not believe that the continental lithosphere could be stronger than the oceanic lithosphere.
- C) Scientists were not convinced by his puzzle-like matching of continents into Pangea.
- D) Scientists did not believe in a fluid mantle.

Answer: <https://biology-forums.com/index.php?topic=417560>

Question 258

Slumps are characterized as

- A) flowing as a high-viscosity liquid.
- B) material moving as a coherent block along a planar surface.
- C) rotational slides on curved surfaces.
- D) free falling through the air.

Answer: <https://biology-forums.com/index.php?topic=418277>

Question 259

A fine-grained ultra-mafic rock is

- A) basalt.
- B) peridotite.
- C) very rare.
- D) gabbro.

Answer: <https://biology-forums.com/index.php?topic=417160>

Question 260

A comparison of ages calculated by carbon 14 analysis with ages know by other means results in

- A) the known ages being older.
- B) the calculated ages being older.
- C) some calculated ages being younger and some older.
- D) a match of the ages, within known uncertainties.

Answer: <https://biology-forums.com/index.php?topic=417956>

Question 261

Global wind patterns are the summed-up effects of all of the following except

- A) rain, freezing rain and snowfall.
- B) seasonal variation in solar heating.
- C) atmospheric convection.
- D) Earth's rotation.
- E) uneven heating of land and sea.

Answer: <https://biology-forums.com/index.php?topic=418005>

Question 262

Which rocks typically have the lightest color?

- A) ultramafic rocks, which contain olivine and pyroxene
- B) mafic rocks, which contain olivine, pyroxene, and calcium-rich plagioclase feldspar
- C) intermediate rocks, which contain pyroxene, amphibole, and plagioclase feldspar
- D) felsic rocks, which contain quartz, mica, amphibole, sodium-rich plagioclase feldspar, and potassium feldspar

Answer: <https://biology-forums.com/index.php?topic=417107>

Question 263

Choose the option that puts the minerals in order of formation from low-grade metamorphism to high-grade metamorphism.

- A) chlorite, garnet, biotite
- B) garnet, feldspar, muscovite
- C) biotite, muscovite, staurolite
- D) chlorite, feldspar, staurolite

Answer: <https://biology-forums.com/index.php?topic=417678>

Question 264

Which soil horizon contains poorly weathered regolith?

- A) B horizon
- B) O horizon
- C) C horizon
- D) A horizon
- E) E horizon

Answer: <https://biology-forums.com/index.php?topic=418117>

Question 265

Igneous rocks are overwhelmingly composed of _____ minerals.

- A) oxide
- B) silicate
- C) sulfide
- D) carbonate

Answer: <https://biology-forums.com/index.php?topic=417144>

Question 266

Which is not a factor that contributes to the modern increase in catastrophes in urban areas?

- A) deforestation in urban areas
- B) increased sports and leisure activities on slopes
- C) increased urbanization in areas prone to slope failure
- D) changes in local precipitation patterns

Answer: <https://biology-forums.com/index.php?topic=418164>

Question 267

In terms of the hydrologic cycle, where is precipitation generally greatest?

- A) over canyons
- B) over lakes
- C) near mountainous regions
- D) over wide, flat areas

Answer: <https://biology-forums.com/index.php?topic=416811>

Question 268

What is cementation?

- A) the joining together of rock particles by heating
- B) the joining together of rock particles by lava overflow
- C) the joining together of rock particles by precipitated minerals
- D) the joining together of rock particles by compression

Answer: <https://biology-forums.com/index.php?topic=417371>

Question 269

In what type of metamorphism does this reaction occur? $KAl_3Si_3O_{10}(OH)_2 + SiO_2 \rightarrow Al_2SiO_5 + KAlSi_3O_8 + H_2O$

- A) high pressure
- B) hydrothermal
- C) high grade
- D) high temperature

Answer: <https://biology-forums.com/index.php?topic=417638>

Question 270

True or False: The relationship between predicted and actual P- and S-wave arrival times support the hypothesis that P- and S- wave velocities are the same throughout Earth.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418159>

Question 271

Strength

- A) increases with depth because of pressure, then decreases at further depths because of temperature.
- B) decreases with depth because of pressure, then increases at further depths because of temperature.
- C) increases with depth.
- D) decreases with depth.

Answer: <https://biology-forums.com/index.php?topic=417403>

Question 272

After about 100,000 years, what is the internal temperature of a nebular disk?

- A) 4 000 degrees
- B) 100 000 degrees
- C) 1 million degrees
- D) 3 000 degrees

Answer: <https://biology-forums.com/index.php?topic=418199>

Question 273

Most glacial ice originates as

- A) sea water.
- B) fluffy snow.
- C) hard ice.
- D) soft ice.

Answer: <https://biology-forums.com/index.php?topic=417502>

Question 274

What increases the severity of a prolonged flood?

- A) increased saturation of the ground
- B) decreased size of drainage basin
- C) fewer tributary streams with large drainage basins of their own
- D) increased porous subsurface material

Answer: <https://biology-forums.com/index.php?topic=416901>

Question 275

True or False: Rocks high on mountain peaks have less potential energy than those on valley bottoms.

- A) True

B) False

Answer: <https://biology-forums.com/index.php?topic=418375>

Question 276

Which is not an effect of underground water?

- A) mass movement
- B) sinkholes
- C) underground pockets that gather petroleum
- D) caverns in limestone

Answer: <https://biology-forums.com/index.php?topic=417068>

Question 277

What evidence led scientists to believe that waves travel at a greater velocity inside Earth?

- A) Refraction of energy waves is most efficient at shallower depths.
- B) Studies of earthquake signals via sensors located deep inside drill holes prove it.
- C) Refraction of energy waves is most efficient along short paths.
- D) Average velocity is faster when the seismograph is farther from the focus of the earthquake.

Answer: <https://biology-forums.com/index.php?topic=418060>

Question 278

What mineral precipitates at travertine springs to create formations?

- A) sulfites
- B) calcite
- C) halite
- D) sulfates

Answer: <https://biology-forums.com/index.php?topic=417072>

Question 279

Stretching clay and having it not return to its original shape when the force is removed is an example of _____ deformation.

- A) clay
- B) plastic
- C) brittle
- D) elastic

Answer: <https://biology-forums.com/index.php?topic=418165>

Question 280

The elapsed time between the passage of successive wave crests past a stationary point is called

- A) wavelength.
- B) wave period.
- C) wave base.
- D) wave height.

Answer: <https://biology-forums.com/index.php?topic=417726>

Question 281

What does a comparison of meteorite abundances of metals with samples of Earth's mantle help geochemists understand?

- A) the elements that have escaped Earth's gravity during its formation
- B) the accretion of Earth from planetesimals
- C) the differentiation of Earth as it occurred after it formed
- D) the formation of crust through volcanic action

Answer: <https://biology-forums.com/index.php?topic=418233>

Question 282

A playa, with its deposits of gypsum and halite, may form in a

- A) deflation.
- B) yardang.
- C) pan.
- D) ventifact.

Answer: <https://biology-forums.com/index.php?topic=417905>

Question 283

What is the composition of Earth's crust?

- A) oceanic: felsic and mafic rocks; continental: mafic rocks
- B) oceanic: basalt; continental: felsic
- C) oceanic: mafic rocks with some gabbro; continental: felsic rocks with some basalt
- D) oceanic: basalt and gabbro; continental: felsic and mafic rocks

Answer: <https://biology-forums.com/index.php?topic=418007>

Question 284

Although George Airy's hypothesis better explains surveying errors in the Himalayas, John Pratt's hypothesis better explains

- A) isostatic adjustments to ice-age glaciers.
- B) how the Himalayas formed in the first place.
- C) elevation differences between oceans and continents.
- D) surveying errors in the Appalachian Mountains.

Answer: <https://biology-forums.com/index.php?topic=417928>

Question 285

Jockey's Ridge is the tallest sand dune in the eastern United States. The height of Jockey's Ridge is what fraction of the tallest Death Valley dune?

- A) about 1/7
- B) about 1/15
- C) about 1/5
- D) about 1/2

Answer: <https://biology-forums.com/index.php?topic=417817>

Question 286

Which factors pertaining to rock type affect wave velocity through the material?

- A) pressure and density
- B) temperature and water content
- C) degree of metamorphism and water content
- D) mineral abundance and pore space

Answer: <https://biology-forums.com/index.php?topic=418072>

Question 287

True or False: All major rock forming minerals are silicates.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=416996>

Question 288

How old is the Precambrian Crust?

- A) 500 million-1.5 billion years
- B) 0-500 million years
- C) 1 billion-4 billion years
- D) 500 million-1 billion years

Answer: <https://biology-forums.com/index.php?topic=417914>

Question 289

Choose the option that correctly orders the path of windblown dust from Africa.

- A) Texas Oklahoma Kansas Colorado
- B) Florida Virginia North Carolina New York
- C) Florida Texas Oregon Washington
- D) Texas Arkansas Kentucky West Virginia

Answer: <https://biology-forums.com/index.php?topic=417937>

Question 290

Which of the following is not a typical data map used to input into GIS to generate a rock and debris-slide susceptibility map?

- A) rock-type map
- B) water course map
- C) slope map
- D) mass-movement inventory map

Answer: <https://biology-forums.com/index.php?topic=418236>

Question 291

Movement along a dip-slip fault may form

- A) a chasm.
- B) an esker.
- C) a fault scarp.
- D) an abrupt horizontal displacement of ground surface.

Answer: <https://biology-forums.com/index.php?topic=417409>

Question 292

A water well is contaminated by a nearby pollution source. A consultant suggests drilling a second well to help purify the first well. Evaluate this strategy.

- A) The strategy will not work because the pattern of flow has been established and the pollution will continue to flow to the first well.
- B) This strategy will work to reduce the pollution in the first well by half, since half the pollution will now go to the second well.
- C) The strategy will only work well if the pollution source has been affected by a well that is drilled into a confined aquifer.
- D) The strategy can work if the new well is pumped at a high rate to create a cone of depression deep enough to divert the polluted water.

Answer: <https://biology-forums.com/index.php?topic=417129>

Question 293

The principle that states that sediment tends to be deposited in horizontal layers is the Principle of ...

- A) Inclusions.
- B) Cross-cutting relationships.
- C) Original Horizontality.
- D) Superposition.

Answer: <https://biology-forums.com/index.php?topic=417894>

Question 294

A student concluded, "The rock record is incomplete because of weathering and erosion." Evaluate this statement.

- A) The statement is partially true; the student forgot to include soft-shelled animals that are now extinct and not fossilized.
- B) The statement is partially true; the student forgot to include tectonic forces.
- C) The statement is partially true; the student forgot to include metamorphism.
- D) The statement is true.

Answer: <https://biology-forums.com/index.php?topic=417809>

Question 295

A well know example of a paired metamorphic belt occurs in

- A) Japan.
- B) Mexico.
- C) Australia.
- D) England.

Answer: <https://biology-forums.com/index.php?topic=417734>

Question 296

"The giant-impactor hypothesis proved how the Sun formed." Is this statement true or false and why?

- A) It is false. The giant-impactor hypothesis explains the formation of the outer planets, also known as "the gas giants."
- B) It is true. The giant-impactor hypothesis states that the star we call the Sun formed when several large planetesimals collided with so much force that the heat of collision is still being emitted from the Sun today.
- C) It is false. The giant-impactor hypothesis states that Earth and the Moon were formed when a giant embryo collided with Earth.
- D) It is true. The giant-impactor hypothesis states that the star we call the Sun formed when a giant ball of dust and other particles collided with sufficient force.

Answer: <https://biology-forums.com/index.php?topic=418221>

Question 297

What color may be produced when manganese is incorporated into a calcite structure?

- A) light green
- B) pale yellow
- C) bright blue
- D) deep red

Answer: <https://biology-forums.com/index.php?topic=416878>

Question 298

Which of the following pairs of index minerals do not overlap in metamorphic grade?

- A) chlorite and biotite
- B) staurolite and sillimanite
- C) kyanite and pyroxene
- D) amphibole and garnet

Answer: <https://biology-forums.com/index.php?topic=417722>

Question 299

Which is not a common characteristic of places where large sand dunes form?

- A) an abundance of loose sand
- B) hot year-round climate
- C) blowing wind
- D) very little vegetation

Answer: <https://biology-forums.com/index.php?topic=417819>

Question 300

Which was not an effect of the 1991 eruption of Mount Pinatubo?

- A) Sulfur-dioxide droplets absorbed solar heat and the world temperature dropped.
- B) Condensed gas droplets were dispersed over much of the globe.
- C) Crops in North America were seriously affected by the ash fallout.
- D) Sulfuric acid etched airplane windows.

Answer: <https://biology-forums.com/index.php?topic=417892>

Question 301

All of the following agricultural practices leave significant parts of the land exposed to water runoff and soil erosion except

- A) terracing steep slopes.
- B) bare areas.
- C) compacted land surfaces.
- D) rows of sown crops.

Answer: <https://biology-forums.com/index.php?topic=418158>

Question 302

When were Africa and South America joined together?

Answer: <https://biology-forums.com/index.php?topic=417773>

Question 303

Why would people build their houses in areas where catastrophic mass movements occur?

- A) Modern homes and buildings can withstand the destructive forces of mass movements.
- B) Catastrophes are rare, and people forget or do not suspect that they will occur.
- C) Advanced technologies are able to take accurate measurements to predict when catastrophes might occur, so people can flee in time.
- D) Modern cities build retaining walls and other structures to prevent catastrophic damage.

Answer: <https://biology-forums.com/index.php?topic=418162>

Question 304

A weakly foliated metamorphic rock composed of quartz is classified as a

- A) hornfels.
- B) quartzite.

- C) gneiss.
- D) marble.

Answer: <https://biology-forums.com/index.php?topic=417583>

Question 305

If two stream undergo the same downstream drop in elevation of 300 meters, which stream would have the lowest channel slope?

- A) not enough information provided A
- B) straight channel
- C) highly sinuous stream
- D) moderately sinuous stream

Answer: <https://biology-forums.com/index.php?topic=416997>

Question 306

The average Earth density is _____ the mantle density.

- A) less than
- B) equal to
- C) greater than
- D) unrelated to

Answer: <https://biology-forums.com/index.php?topic=418137>

Question 307

Which of the following is not a use for pumice?

- A) abrasive in toothpaste
- B) chipped into sharp tools
- C) manufacture of stonewashed jeans
- D) lightweight concrete

Answer: <https://biology-forums.com/index.php?topic=417228>

Question 308

Why is a stream able to pick up a grain of sand, but not a smaller grain of silt?

- A) Gravity forces the silt to remain on the ground.
- B) Adhesion keeps the silt particles attached to the rock below.
- C) Certain patterns of water flow work better for larger particles.
- D) Cohesion keeps the silt particles attached to each other.

Answer: <https://biology-forums.com/index.php?topic=416832>

Question 309

What evidence do we have for this flood?

Answer: <https://biology-forums.com/index.php?topic=417537>

Question 310

A coarse-grained intermediate rock is

- A) gabbro.
- B) granite.
- C) dacite.
- D) diorite.

Answer: <https://biology-forums.com/index.php?topic=417166>

Question 311

Polar deserts form above _____ degrees north or south latitude.

- A) 0
- B) 15
- C) 30
- D) 45
- E) 60

Answer: <https://biology-forums.com/index.php?topic=418018>

Question 312

Which option was not an effect of gravitational push and pull on planetary embryos?

- A) The speed of rotation was increased by accretion and some of the embryos began to break apart.
- B) Embryos began to accrete particles from outside of their original feeding zones.
- C) The embryo orbits crossed one another, setting up collisions that continued the planetary accretion process to the next stage - the making of the inner rocky planets.
- D) The original compositional gradients from inner to outer parts of the solar system imparted by varying condensation temperatures was blurred.

Answer: <https://biology-forums.com/index.php?topic=418219>

Question 313

If the following sand grain minerals were mixed together, which one would get deposited on a beach most often because of its density?

- A) calcite
- B) quartz
- C) feldspar
- D) basalt

Answer: <https://biology-forums.com/index.php?topic=417615>

Question 314

What would happen if you used data from a very dry set of years to compute the recurrence interval calculations?

Answer: <https://biology-forums.com/index.php?topic=417045>

Question 315

Which statement is false about the application of the scientific method in geology?

- A) It is difficult to reproduce controlled laboratory conditions to test geological theories.
- B) The rates of geological processes are slow, so real-time experiments are difficult to carry out.
- C) Computer simulations are impractical in the study of geology.
- D) There are too many variables to run a controlled experiment in geology.

Answer: <https://biology-forums.com/index.php?topic=418332>

Question 316

Which horizon may accumulate minerals that are not present in the parent material?

- A) E horizon
- B) O horizon
- C) A horizon
- D) B horizon

Answer: <https://biology-forums.com/index.php?topic=418053>

Question 317

Which of the following is not considered a loss to the sediment budget for a shoreline?

- A) Sand is blown off the beach on to adjacent coastal sand dunes.
- B) Sediment is eroded from local sea cliffs and headlands.
- C) Sediment is eroded by waves and carried offshore by rip currents.
- D) Sediment is carried farther along the shore by longshore currents.

Answer: <https://biology-forums.com/index.php?topic=417634>

Question 318

The dunes that form where wind erosion attacks a barren area in a largely vegetated landscape are called

- A) barchan dunes.
- B) parabolic dunes.
- C) transverse dunes.
- D) star dunes.

Answer: <https://biology-forums.com/index.php?topic=417974>

Question 319

What is a rill?

- A) a small stream

- B) a small channel in soil
- C) a scooped-out valley in soil
- D) a ripple in sandy soil

Answer: <https://biology-forums.com/index.php?topic=418105>

Question 320

The attraction of particles to each other is called

- A) creep.
- B) friction.
- C) cohesion.
- D) sliding.

Answer: <https://biology-forums.com/index.php?topic=418287>

Question 321

Which radioactive-isotope-decay schemes would be optimal for determining the age of wood and bone?

- A) Carbon 14 method
- B) Rubidium Strontium method
- C) Uranium Lead method
- D) Potassium Argon method

Answer: <https://biology-forums.com/index.php?topic=417929>

Question 322

Evaluate the following statement. "Human activities contributing to global warming could cause the oceans to switch to ice-age mode."

- A) This statement is false. Changes in human behavior will alleviate any global warming trends.
- B) This statement is false. Ice ages only begin when Earth is a certain distance from the Sun.
- C) This statement is true.
- D) This statement is partially true. Global warming may cause a change in the oceans, but it is a natural process that is unrelated to human activity.

Answer: <https://biology-forums.com/index.php?topic=417453>

Question 323

A _____ of sea-level causes a lowering of base-level and _____ in the lower part of a stream valley that terminates in the ocean.

- A) rising, sedimentation
- B) lowering, sedimentation
- C) rising, incision
- D) lowering, incision

Answer: <https://biology-forums.com/index.php?topic=417012>

Question 324

A clastic sedimentary rock composed of mud and splits into sheets would be called a

- A) claystone.
- B) mudstone.
- C) shale.
- D) siltstone.

Answer: <https://biology-forums.com/index.php?topic=417413>

Question 325

The _____ is comprised of mostly mafic igneous rocks.

- A) crust (oceanic)
- B) mantle
- C) crust (continental)
- D) core (outer)
- E) core (inner)

Answer: <https://biology-forums.com/index.php?topic=418183>

Question 326

Why would a geologist study how water is stored underground and how it moves to the surface?

- A) to find diamonds associated with the water table

- B) to prevent contamination
- C) to judge earthquake danger
- D) to assess the functionality of a nearby hydroelectric power dam

Answer: <https://biology-forums.com/index.php?topic=418328>

Question 327

Currently, what is the best method for predicting earthquakes within the crucial 2 hour time period?

Answer: <https://biology-forums.com/index.php?topic=417554>

Question 328

A clastic sedimentary rock composed of pebbles (20%) and sand (80%) would be called a

- A) sandy pebblestone.
- B) conglomeratic sandstone.
- C) pebbly sandstone.
- D) sandy conglomerate.

Answer: <https://biology-forums.com/index.php?topic=417419>

Question 329

For which type of rock is potassium-argon dating least useful?

- A) metamorphic
- B) metamorphic and igneous
- C) sedimentary
- D) igneous

Answer: <https://biology-forums.com/index.php?topic=417870>

Question 330

Judge the following sentences according to the criteria given below. Metals typically do not transfer heat by convection because they have high viscosity.

- A) Both the assertion and the reason are incorrect.
- B) The assertion and the reason are both correct, but the reason is invalid.
- C) The assertion is correct but the reason is incorrect.
- D) The assertion and the reason are both correct, and the reason is valid.
- E) The assertion is incorrect but the reason is correct.

Answer: <https://biology-forums.com/index.php?topic=417244>

Question 331

What type of crystal texture is formed when magma cools slowly within warm rock underground?

- A) andesitic
- B) phaneritic
- C) aphanitic
- D) porphyritic

Answer: <https://biology-forums.com/index.php?topic=417115>

Question 332

What are sea cliffs evidence of?

Answer: <https://biology-forums.com/index.php?topic=418014>

Question 333

The process that converts sediment into rock is called

- A) crystallization.
- B) lithification.
- C) weathering.
- D) metamorphism.

Answer: <https://biology-forums.com/index.php?topic=417386>

Question 334

According to the Neptunists, volcanoes are the product of

- A) locally burning coal seams.
- B) molten rock from deep within Earth.
- C) plate tectonics.
- D) impacts of comets or meteors.

Answer: <https://biology-forums.com/index.php?topic=417032>

Question 335

True or False: The shape of Earth's magnetic field resembles that produced by a laboratory bar magnet.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417293>

Question 336

True or False: All igneous rocks exhibit identical grain size.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417128>

Question 337

A weakly foliated metamorphic rock composed of green minerals such as chlorite is classified as a(n)

- A) green hornfels.
- B) amphibolite.
- C) greenstone.
- D) greenschist.

Answer: <https://biology-forums.com/index.php?topic=417598>

Question 338

Crevasse in glaciers form by _____ deformation.

- A) plastic
- B) elastic
- C) glacial
- D) brittle

Answer: <https://biology-forums.com/index.php?topic=417511>

Question 339

What type of boundary is the San Andreas fault in California?

- A) fault-block
- B) divergent
- C) convergent
- D) transform

Answer: <https://biology-forums.com/index.php?topic=417624>

Question 340

Invertebrate animals secrete shells of all of the following substances except

- A) silica.
- B) aragonite.
- C) dolomite.
- D) calcite.

Answer: <https://biology-forums.com/index.php?topic=417449>

Question 341

True or False: All meteorites collected on Earth are fine-grained, undifferentiated mixtures of silicates and metals, indicating that differentiation of planetesimals or planetary embryos was not significant in our solar system.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418310>

Question 342

Can you think of something that is not matter?

Answer: <https://biology-forums.com/index.php?topic=417052>

Question 343

What type of stream pattern would you expect to develop in a stream that had a low bedload to suspended load ratio, a higher percentage of finer grained sediment, stable banks, constant discharge and a low channel slope?

- A) moderately meandering pattern
- B) moderately braided pattern
- C) highly braided pattern
- D) highly meandering pattern
- E) mixed meandering and braided pattern

Answer: <https://biology-forums.com/index.php?topic=416991>

Question 344

Which of the following is not true of soft water?

- A) It requires special filters and chemicals to produce.
- B) It may add toxic metals to drinking water.
- C) It may clog pipes.
- D) It may corrode pipes.

Answer: <https://biology-forums.com/index.php?topic=417162>

Question 345

What is MTBE?

- A) a carcinogen that rises to the top of the water table
- B) a pollutant that sinks to the bottom of an aquifer
- C) a pollutant that dissolves in ground water
- D) a natural component of gasoline

Answer: <https://biology-forums.com/index.php?topic=417181>

Question 346

Which word is a synonym of plutonic?

- A) cold
- B) intrusive
- C) extrusive
- D) watery

Answer: <https://biology-forums.com/index.php?topic=416941>

Question 347

Which of the following is not regolith?

- A) sediment
- B) the second layer in a sedimentary bed
- C) parent material for soil
- D) products of physical weathering

Answer: <https://biology-forums.com/index.php?topic=418039>

Question 348

Deserts coincide with

- A) temperate low-pressure zones.
- B) subtropical low-pressure belts.
- C) temperate high-pressure zones.
- D) subtropical high-pressure belts.

Answer: <https://biology-forums.com/index.php?topic=417855>

Question 349

True or False: Energy is the measure of the ability to do work.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418373>

Question 350

The elevations of continents and oceans vary from each other because

- A) oceanic crust is thinner and denser than continental crust.
- B) oceanic crust is thicker and denser than continental crust.
- C) oceanic crust is thicker and less dense than continental crust.
- D) oceanic crust is thinner and less dense than continental crust.

Answer: <https://biology-forums.com/index.php?topic=417922>

Question 351

Why is it good to measure the magnitude, rather than intensity, of an earthquake?

Answer: <https://biology-forums.com/index.php?topic=417527>

Question 352

Why would we want to know the 100 year flood recurrence interval?

Answer: <https://biology-forums.com/index.php?topic=417036>

Question 353

A shale metamorphosed to high metamorphic grade would become a(n)

- A) amphibolite.
- B) schist.
- C) gneiss.
- D) slate.

Answer: <https://biology-forums.com/index.php?topic=417616>

Question 354

_____ soils are common in South America and Africa.

- A) Grassland
- B) Forest
- C) Rainforest
- D) Wetland
- E) Desert

Answer: <https://biology-forums.com/index.php?topic=418138>

Question 355

Rocks formed by the solid-state transformation of minerals in a preexisting rock due to elevated temperature, pressure and/or hot fluids are called

- A) intrusive rocks.
- B) igneous rocks.
- C) metamorphic rocks.
- D) sedimentary rocks.

Answer: <https://biology-forums.com/index.php?topic=416846>

Question 356

Basic components of sand include

- A) shells and humus.
- B) limestone and humus.
- C) shells and quartz.
- D) quartz and humus.

Answer: <https://biology-forums.com/index.php?topic=416906>

Question 357

If you see a stream that flows year round you know that that stream

- A) receives ground water only.
- B) receives surface water only.

- C) receives ground water and surface water.
D) exists where it rains everyday.

Answer: <https://biology-forums.com/index.php?topic=417245>

Question 358

Rocks exposed at the surface slowly deteriorate by

- A) weathering.
B) lithification.
C) cooling.
D) solidification.

Answer: <https://biology-forums.com/index.php?topic=416876>

Question 359

An example of land use planning is a floodway. What is a floodway?

Answer: <https://biology-forums.com/index.php?topic=417063>

Question 360

True or False: Every part of the Vulcanist doctrine for the formation of rocks was true.

- A) True
B) False

Answer: <https://biology-forums.com/index.php?topic=417050>

Question 361

What observable data would not help a scientist piece together the layers of rock according to the principle of lateral continuity?

- A) a view of layers exposed in a river valley
B) an adjacent igneous mountain
C) core samples from a drilled well
D) a view of a cliff exposed by blasting a train track through it

Answer: <https://biology-forums.com/index.php?topic=417774>

Question 362

An example using a genetic classification of minerals is

- A) The Mohs Hardness Minerals.
B) The Metamorphic Minerals.
C) The Rock Forming Minerals.
D) The Silicate Structures.

Answer: <https://biology-forums.com/index.php?topic=416828>

Question 363

Which of the following is not a reason that the tracer material was found at varying concentrations?

- A) spreading out over a large volume of water
B) varying pore sizes
C) impermeability of materials
D) varying circuitous routes of water molecules

Answer: <https://biology-forums.com/index.php?topic=417145>

Question 364

How many elements make up most of Earth's crust?

- A) 4
B) 12
C) 40
D) 100

Answer: <https://biology-forums.com/index.php?topic=416912>

Question 365

Which factor does not affect wave height?

- A) direction of wind

- B) velocity of wind
- C) duration of wind
- D) local depth of the ocean

Answer: <https://biology-forums.com/index.php?topic=417586>

Question 366

Which of the following statements is not true about individual minerals?

- A) The composition of different minerals varies only slightly.
- B) Minerals can be synthetically manufactured.
- C) Minerals can be produced by animals.
- D) Minerals have an ordered structure.

Answer: <https://biology-forums.com/index.php?topic=416866>

Question 367

This mineral is a major iron ore.

- A) hematite
- B) galena
- C) calcite
- D) pyrite

Answer: <https://biology-forums.com/index.php?topic=417040>

Question 368

Due to the nature of the movement of a wave, which wave produces the most earthquake damage?

- A) S-waves
- B) body waves
- C) surface waves
- D) P-waves

Answer: <https://biology-forums.com/index.php?topic=418046>

Question 369

Desert soils that form on parental material containing virtually no calcite receive their calcium from

- A) the asthenosphere.
- B) the lithosphere.
- C) animal droppings.
- D) the atmosphere.

Answer: <https://biology-forums.com/index.php?topic=418154>

Question 370

A coarse-grained felsic rock is

- A) rhyolite.
- B) andesite.
- C) gabbro.
- D) tonalite.

Answer: <https://biology-forums.com/index.php?topic=417163>

Question 371

Which of the following defines the bonding structure of quartz?

- A) an interlocking three-dimensional framework of evenly spaced groups
- B) two-dimensional sheets of hexagonally bonded groups, loosely bonded between sheets
- C) rhombically shaped ionic bonds between groups with even cleavage planes
- D) an interlocking three-dimensional framework of unevenly spaced groups

Answer: <https://biology-forums.com/index.php?topic=416899>

Question 372

What is a dynamo?

- A) a rotating device that changes motion energy to electrical energy
- B) a rotating magnet whose magnetism maintains the rotation

C) a rotating body that contains fluid and magnetism
D) a rotating body containing fluid whose movement maintains the rotation
Answer: <https://biology-forums.com/index.php?topic=417198>

Question 373

Look up the viscosity of some well-known items. How does the mantle compare to this viscosity?
Answer: <https://biology-forums.com/index.php?topic=417304>

Question 374

Which type of rocks records events in Earth's interior?
A) sedimentary
B) magma
C) volcanic
D) plutonic
Answer: <https://biology-forums.com/index.php?topic=417744>

Question 375

What does the profile of a glacial valley look like?
A) irregularly eroded
B) U-shaped
C) V-shaped
D) broad bottomed with overhangs
Answer: <https://biology-forums.com/index.php?topic=417399>

Question 376

True or False: A descriptive classification scheme only requires good powers of observation.
A) True
B) False
Answer: <https://biology-forums.com/index.php?topic=417020>

Question 377

Which of the following is oldest?
A) East Pacific Rise
B) Hawaiian Islands
C) Hawaiian Seamounts
D) Emperor Seamounts
Answer: <https://biology-forums.com/index.php?topic=417745>

Question 378

To make the data fall into a line that can be analyzed for a 100-year flood, scientists use
A) polar graph paper.
B) nonlinear axes.
C) rounded-off estimates of time intervals.
D) stream elevation data.
Answer: <https://biology-forums.com/index.php?topic=416910>

Question 379

How was radioactive carbon dating useful for the atmospheric calcium additions calculations?
A) It helped to establish the amount of calcium present.
B) It helped to establish the rate of deposition.
C) It was used as a standard amount for a mineral in the soil.
D) It was not useful.
Answer: <https://biology-forums.com/index.php?topic=418099>

Question 380

Which process is most common at transform boundaries?
A) volcanic action

- B) lithospheric formation
- C) lithospheric conservation
- D) lithospheric destruction

Answer: <https://biology-forums.com/index.php?topic=417621>

Question 381

What does Pratt's model of isostasy describe better than Airy's model?

- A) elevation differences within areas of continental crust
- B) formation of rift valleys in continents
- C) elevation differences between oceans and continents
- D) fault block elevations

Answer: <https://biology-forums.com/index.php?topic=417827>

Question 382

Why does water released from a dam erode the streambed so much more than it would have before the dam existed?

- A) It has a greatly increased velocity.
- B) The dry stream bed below the dam weakens while it is left dry.
- C) It has more stream power than it would have had before the dam.
- D) The stream power now exceeds the sediment load by a great amount.

Answer: <https://biology-forums.com/index.php?topic=416919>

Question 383

Volcanoes composed of multiple, overlapping volcanic domes are called a

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

Answer: <https://biology-forums.com/index.php?topic=417262>

Question 384

Which of the following is not a typical component of a black smoker?

- A) pyrite
- B) basalt
- C) sphalerite
- D) galena

Answer: <https://biology-forums.com/index.php?topic=417703>

Question 385

Which other principle is the principle of lateral continuity paired with in order to extend relative age relationships over larger areas?

- A) the principle of superposition
- B) the principle of original horizontality
- C) the principle of cross-cutting relationships
- D) the principle of inclusions

Answer: <https://biology-forums.com/index.php?topic=417777>

Question 386

If a geologist creates a geologic map of an area and then draws a cross-section of that area, what type of scientific process is shown?

- A) conclusion
- B) interpretation
- C) observation
- D) experimentation

Answer: <https://biology-forums.com/index.php?topic=417355>

Question 387

A small volcano composed of basaltic to andesitic scoria usually produced by a single prolonged eruption is called a

- A) cinder cone.
- B) dome complex.

- C) shield volcano.
- D) composite volcano.

Answer: <https://biology-forums.com/index.php?topic=417259>

Question 388

True or False: Each radioactive-decay scheme has its own time range of usefulness depending on the size of the half-life.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417941>

Question 389

The curiously low seismic velocities observed in some places above the core-mantle boundary might be explained by

- A) increased density in that area.
- B) a small degree of melting in that area.
- C) an anomalous rock type in that area.
- D) a magnetic belt of rock in that area.

Answer: <https://biology-forums.com/index.php?topic=418094>

Question 390

What accounts for most rock and regolith movement in mountains?

- A) weathering and erosion
- B) mass movements
- C) rivers and streams
- D) earthquakes

Answer: <https://biology-forums.com/index.php?topic=418240>

Question 391

Where did this humongous flood come from? not?

Answer: <https://biology-forums.com/index.php?topic=417532>

Question 392

Metamorphism usually _____ the radioactive-isotope clock.

- A) resets
- B) maintains
- C) retains
- D) preserves

Answer: <https://biology-forums.com/index.php?topic=417948>

Question 393

After compaction the next process that converts sediment into rock is

- A) metamorphism.
- B) crystallization.
- C) lithification.
- D) cementation.

Answer: <https://biology-forums.com/index.php?topic=417392>

Question 394

True or False: Geologic topics impact virtually every aspect of our daily lives, including such diverse issues as the economy, environmental health, and climate.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418359>

Question 395

How was the Coast Range in Oregon and Washington formed?

- A) accretion by subduction zones
- B) sea mounts and island volcanos

- C) as a volcanic island arc
- D) thrust and uplift of continental crust

Answer: <https://biology-forums.com/index.php?topic=417901>

Question 396

Names given to the different types of igneous intrusions are attributed to their

- A) composition and crystal size.
- B) shape and size.
- C) location and depth.
- D) process of formation.

Answer: <https://biology-forums.com/index.php?topic=417230>

Question 397

The Mohorovicic discontinuity or Moho corresponds to the boundary between

- A) core and crust.
- B) mantle and core.
- C) oceanic crust and continental crust.
- D) mantle and crust.

Answer: <https://biology-forums.com/index.php?topic=418181>

Question 398

Which of the following is obvious when standing on a stream bank?

- A) channel depth
- B) channel outline
- C) flow velocity
- D) channel slope

Answer: <https://biology-forums.com/index.php?topic=416988>

Question 399

Which principle is described below?

"Objects enclosed in rock must be older than the time of rock formation."

- A) the principle of cross-cutting relationships
- B) the principle of original horizontality
- C) the principle of superposition
- D) the principle of inclusions

Answer: <https://biology-forums.com/index.php?topic=417750>

Question 400

Which type of compounds do not commonly form chemical sedimentary rock?

- A) salts
- B) silicates
- C) carbonates
- D) sulfates

Answer: <https://biology-forums.com/index.php?topic=416924>

Question 401

A scientist finds a piece of peridotite enclosed inside basalt. How can this occurrence best be explained?

- A) Sedimentary processes had enclosed the peridotite sediment inside the basalt rock.
- B) The peridotite formed by metamorphic processes from another mineral inside the basalt.
- C) The peridotite formed and was enclosed by basalt in the mantle.
- D) Basaltic volcanic lava had likely enclosed the peridotite.

Answer: <https://biology-forums.com/index.php?topic=418022>

Question 402

Why does the heat flow dip east of the location where the Juan de Fuca Plate subducts beneath the North American Plate?

- A) The cold subducted lithosphere dips there.
- B) The ocean water cools the rock in the trench.

- C) The rock remained cold there after the most recent ice age.
D) The rock is denser and cooler there.

Answer: <https://biology-forums.com/index.php?topic=417613>

Question 403

When a stream's discharge decreases from bankfull discharge, it has appropriate power to

- A) transport all of the sediment on its bed without causing any further erosion.
B) not transport all of its sediment load and deposits part of it.
C) transport all of the sediment on its bed and cause further erosion.
D) not transport any of its sediment load and deposits all of it.

Answer: <https://biology-forums.com/index.php?topic=416979>

Question 404

Judge the following sentence according to the criteria given below There is a downward limit to which water can descend because porosity and permeability decrease downward in Earth.

- A) Both the assertion and the reason are incorrect.
B) The assertion and the reason are both correct, but the reason is invalid.
C) The assertion is correct but the reason is incorrect.
D) The assertion is incorrect but the reason is correct.
E) The assertion and the reason are both correct, and the reason is valid.

Answer: <https://biology-forums.com/index.php?topic=417234>

Question 405

The U-shape of a glacial valley is explained by

- A) the weight of overlying snow.
B) the action of meltwater.
C) variation in glacier velocity.
D) the action of transported pebbles and boulders.

Answer: <https://biology-forums.com/index.php?topic=417402>

Question 406

Which statement about the formation of the magnetic field of Earth is true?

- A) Its formation is a result of the movement of magnetic materials in the core.
B) It constantly forms, is lost, and is regenerated.
C) Its formation is a result of magnetic materials in the core.
D) It is more strongly observable at relatively low temperatures.

Answer: <https://biology-forums.com/index.php?topic=417178>

Question 407

Which factor contributing to rock movement is not demonstrated by the brick-and-wood experiment?

- A) angle of slope
B) smoothness of rock
C) density of rock
D) presence of water

Answer: <https://biology-forums.com/index.php?topic=418184>

Question 408

Which was correctly explained by Neptunism but not by Vulcanism?

- A) the sedimentary process
B) metamorphism
C) igneous rock formation
D) volcanic action

Answer: <https://biology-forums.com/index.php?topic=416971>

Question 409

_____ soils in the southeastern U.S. are notable for red, clay-rich B horizons, rich in iron and aluminum.

- A) Desert

- B) Grassland
- C) Forest
- D) Rainforest
- E) Wetland

Answer: <https://biology-forums.com/index.php?topic=418136>

Question 410

Which of the following landslides occurred at the slowest rate?

- A) San Bernardino Mountains, California, 2003
- B) near Lake City, Colorado, 2004
- C) Yosemite National Park, California, 1996
- D) Madison Canyon, Montana, 1959

Answer: <https://biology-forums.com/index.php?topic=418168>

Question 411

Tension results in strike-slip faults when

- A) suitable reverse faults are acted upon.
- B) the fractures are parallel to the stress direction.
- C) suitable normal faults are acted upon.
- D) the fractures are perpendicular to the stress direction.

Answer: <https://biology-forums.com/index.php?topic=417388>

Question 412

When geochemists compare meteorites with mantle rocks to attempt to deduce the composition of the core, they do not assume that

- A) iron-seeking rocks sunk to the core.
- B) oceans formed on top of Earth's original molten magma.
- C) meteorites and Earth originally had the same composition.
- D) silicate-seeking rocks floated to the crust.

Answer: <https://biology-forums.com/index.php?topic=418227>

Question 413

Plants do not grow on coastal dunes primarily due to

- A) infertility of sand.
- B) lack of moisture.
- C) ocean winds.
- D) presence of ocean water.

Answer: <https://biology-forums.com/index.php?topic=417844>

Question 414

This non-yellow mineral is very malleable with a high specific gravity.

- A) diamond
- B) copper
- C) gold
- D) pyrite

Answer: <https://biology-forums.com/index.php?topic=417035>

Question 415

How did Neptunists explain volcanoes?

- A) Volcanoes were burning temporarily due to heat caused by meteor collisions.
- B) Volcanoes were spots in the crust layer where hot contents of Earth's center spilled out.
- C) Volcanoes were burning subterranean coal beds.
- D) Volcanoes were centers of new rock formations.

Answer: <https://biology-forums.com/index.php?topic=416977>

Question 416

Dust that causes hazy days in the Virgin Islands comes from

- A) Africa.

- B) the southeastern United States.
- C) southern South America.
- D) northern South America.

Answer: <https://biology-forums.com/index.php?topic=417932>

Question 417

Identify the following igneous rock based on its texture and mineral content, a fine-grained rock with 21 % Quartz, 14 % Potassium Feldspar, 39 % Plagioclase Feldspar, 7 % Biotite, 4 % Muscovite, 14 % Amphibole, 0 % Pyroxene, 0 % Olivine?

- A) basalt
- B) rhyolite
- C) andesite
- D) dacite

Answer: <https://biology-forums.com/index.php?topic=417186>

Question 418

Metamorphic transformations require conditions found

- A) in Earth's mantle.
- B) only where magma forms.
- C) on Earth's surface.
- D) inside Earth.

Answer: <https://biology-forums.com/index.php?topic=417062>

Question 419

Why didn't ice gather in central and northern Alaska in the last ice age?

- A) There was too much geothermal heating from volcanic action.
- B) The climate at that time was tropical.
- C) Proximity to the sea kept it too warm.
- D) There was too little precipitation.

Answer: <https://biology-forums.com/index.php?topic=417432>

Question 420

16 A fault with both vertical and horizontal displacement is called a(n) _____ -slip fault.

- A) lateral
- B) dip
- C) strike
- D) oblique

Answer: <https://biology-forums.com/index.php?topic=417484>

Question 421

Which factor increases slope stability?

- A) increased frictional resistance
- B) decreased compaction
- C) decreased contact cohesion
- D) increased slope angle

Answer: <https://biology-forums.com/index.php?topic=418212>

Question 422

Thicker soil deposits on sedimentary rocks, compared to plutonic rocks, is an example of the role of _____ in determining soil characteristics.

- A) vegetation
- B) landscape relief
- C) time
- D) parent material
- E) climate

Answer: <https://biology-forums.com/index.php?topic=418123>

Question 423

A fault with vertical displacement and no horizontal displacement is called a(n) _____ -slip fault.

- A) lateral
- B) dip
- C) oblique
- D) strike

Answer: <https://biology-forums.com/index.php?topic=417478>

Question 424

What method was used to replenish Miami beach in the 1970s?

- A) Dams were removed from nearby rivers.
- B) New sea walls were built.
- C) Sand was pumped back onto the beach.
- D) Groins were built.

Answer: <https://biology-forums.com/index.php?topic=417717>

Question 425

The mineral property determined by the color of the residue produced by scratching a mineral on a nonglazed porcelain plate is called

- A) luster.
- B) cleavage.
- C) color.
- D) streak.

Answer: <https://biology-forums.com/index.php?topic=416953>

Question 426

The three ingredients of sedimentary-rock texture does not include

- A) the rounding of the grains.
- B) the dominant grain size.
- C) the degree of sorting.
- D) the mineralogy of the grains.

Answer: <https://biology-forums.com/index.php?topic=417428>

Question 427

Ice moves _____ in the zone of accumulation and _____ in the zone of wastage.

- A) downslope, downslope
- B) upslope, upslope
- C) downslope, upslope
- D) upslope, downslope

Answer: <https://biology-forums.com/index.php?topic=417526>

Question 428

Judge the following sentence according to the criteria given below When farming in steep terrain it is best to modify the slopes by making terraces because the flat terrace surface slow down the water, decrease erosion and allow the water to soak into the soil.

- A) The assertion and the reason are both correct, and the reason is valid.
- B) The assertion is incorrect but the reason is correct.
- C) The assertion is correct but the reason is incorrect.
- D) The assertion and the reason are both correct, but the reason is invalid.
- E) Both the assertion and the reason are incorrect.

Answer: <https://biology-forums.com/index.php?topic=418160>

Question 429

What is a possible effect of a magnetic reversal on Earth's organisms?

- A) Organisms will change their habitats with the accompanying climate change.
- B) Species become extinct as they lose their navigational ability.
- C) Organisms are subjected to greater amounts of cosmic radiation.
- D) Organisms are subjected to greater amounts of radioactivity.

Answer: <https://biology-forums.com/index.php?topic=417188>

Question 430

A rock that is _____ million years old comes from the Archean Eon

- A) 1,500
- B) 30
- C) 500
- D) 4,060

Answer: <https://biology-forums.com/index.php?topic=417959>

Question 431

How many directions of cleavage does calcite, which forms rhomb-shaped fragments, contain?

- A) 2
- B) 3
- C) 4
- D) 6

Answer: <https://biology-forums.com/index.php?topic=416812>

Question 432

Which option correctly describes an effect of human activity on a river channel?

- A) If logging and clearing have increased the amount of runoff, the channel may fill and the banks may become higher.
- B) If agriculture and building have decreased the amount of runoff, the channel may erode further and the banks will become lower.
- C) If agriculture and building have increased the sediment load, the channel may erode further and the banks will become lower.
- D) If logging and clearing have increased the sediment load, the channel may fill and the banks may become higher.

Answer: <https://biology-forums.com/index.php?topic=416922>

Question 433

True or False: There is direct geologic evidence about Earth's earliest crust.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418313>

Question 434

What grade of metamorphism occurs at a depth of 5 km and a temperature of 1100 degrees C.

- A) magma
- B) low-grade metamorphism
- C) high-grade metamorphism
- D) medium-grade metamorphism

Answer: <https://biology-forums.com/index.php?topic=417538>

Question 435

The oldest grain of sand found and dated is made of

- A) zircon.
- B) peridotite.
- C) basalt.
- D) diamond.

Answer: <https://biology-forums.com/index.php?topic=418259>

Question 436

Two rock types that have been studied in the laboratory to determine likely temperatures at depth in the mantle are

- A) peridotite and diamond-bearing rocks.
- B) peridotite and olivine.
- C) diamond-bearing rocks and olivine.
- D) basalt and peridotite.

Answer: <https://biology-forums.com/index.php?topic=418092>

Question 437

Humans benefit from the persistent rise and fall of tides because they can be used as a source of

- A) fresh water.
- B) sediment.

- C) coal.
- D) electricity.

Answer: <https://biology-forums.com/index.php?topic=417778>

Question 438

Judge the following sentence according to the criteria given below The barren surface of the tidal flat exposed at low tide lacks vegetation because tidal flats form on the lagoon side of a barrier island.

- A) The assertion and the reason are both correct, but the reason is invalid.
- B) The assertion is correct but the reason is incorrect.
- C) The assertion is incorrect but the reason is correct.
- D) Both the assertion and the reason are incorrect.
- E) The assertion and the reason are both correct, and the reason is valid.

Answer: <https://biology-forums.com/index.php?topic=417780>

Question 439

A change in direction of a body wave when it crosses a boundary between layers with different physical properties is called seismic

- A) velocity.
- B) reflection.
- C) absorption.
- D) refraction.

Answer: <https://biology-forums.com/index.php?topic=418167>

Question 440

What percent of North American deserts are covered by sand dunes?

- A) 2%
- B) 12%
- C) 20%
- D) 22%

Answer: <https://biology-forums.com/index.php?topic=417810>

Question 441

True or False: All weathered rock is represented by clastic particles.

- A) False
- B) True

Answer: <https://biology-forums.com/index.php?topic=417356>

Question 442

A student concludes, "The transition zone is where minerals change from peridotite in the upper mantle to higher-pressure minerals by reconfiguration of atoms." Evaluate this statement.

- A) It is false. The transition zone is a place of higher density and pressure that interrupts the velocity of seismic waves.
- B) It is false. The transition zone is a place where mineral composition changes completely.
- C) It is true, except the minerals change from basalt to peridotite.
- D) It is true.

Answer: <https://biology-forums.com/index.php?topic=418084>

Question 443

The property of matter that describes its resistance to flow is called

- A) radiation.
- B) viscosity.
- C) conduction.
- D) convection.

Answer: <https://biology-forums.com/index.php?topic=417243>

Question 444

True or False: It is possible for geologists to make maps of areas that are prone to future mass movements.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418268>

Question 445

What is the ratio of sea to land on Earth?

- A) 81: 19
- B) 61: 39
- C) 51: 49
- D) 71: 29

Answer: <https://biology-forums.com/index.php?topic=417788>

Question 446

A critical difference between magma and lava is the presence versus absence of

- A) crystals.
- B) glass.
- C) vesicles.
- D) gas.

Answer: <https://biology-forums.com/index.php?topic=417150>

Question 447

Coal metamorphosed to medium metamorphic grade would become a(n)

- A) bituminous coal.
- B) subbituminous coal.
- C) lignite.
- D) anthracite.

Answer: <https://biology-forums.com/index.php?topic=417605>

Question 448

Why might one river have a much greater dissolved load than another river?

- A) nature of the sediment-forming rock
- B) fewer meanders and a broader basin
- C) faster flow rate
- D) a narrow channel just before the sea

Answer: <https://biology-forums.com/index.php?topic=416827>

Question 449

Choose the option that lists the items in order from smallest to largest. 1. planets 2. planetesimals 3. pieces in nebular disks 4. planetary embryos

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

Answer: <https://biology-forums.com/index.php?topic=418195>

Question 450

The Precambrian basement rocks of Ohio became part of the North American continent

- A) about 1.1 billion years ago.
- B) more than 2.5 billion years ago.
- C) 1.8 to 1.9 billion years ago.
- D) 1.9 billion years ago.
- E) 1.7 to 1.8 billion years ago.

Answer: <https://biology-forums.com/index.php?topic=417944>

Question 451

Carbon and oxygen atoms do not show up as well as calcium and magnesium atoms on a transmission electron microscope image of dolomite. Why?

- A) Carbon and oxygen gases are transparent to light.
- B) Transmission electron microscopes perform better on metals than nonmetals.
- C) The electrons are not as densely packed in carbon and oxygen.
- D) There are not as many carbon and oxygen atoms.

Answer: <https://biology-forums.com/index.php?topic=416836>

Question 452

The force opposing motion between two objects in contact with one another is called

- A) slope.
- B) cohesion.
- C) friction.
- D) repose.

Answer: <https://biology-forums.com/index.php?topic=418283>

Question 453

Which depositional landform is named after a Gaelic word meaning "rounded hill"?

- A) kame
- B) esker
- C) drumlin
- D) moraine

Answer: <https://biology-forums.com/index.php?topic=417348>

Question 454

Which combination of factors would best lead to convection?

- A) high viscosity, high mass, and high heat conductivity
- B) low viscosity, low mass, and low heat conductivity
- C) low viscosity, low heat conductivity, and high mass
- D) low heat conductivity, low mass, and high viscosity

Answer: <https://biology-forums.com/index.php?topic=417116>

Question 455

Which observation indicates that heat is integral to the movement of fluid in a lava lamp?

- A) The density of the lava decreases as it reaches 50C.
- B) There is no movement of fluid in a cold lava lamp.
- C) The liquids expand as heat is applied.
- D) The lava moves upward when it reaches 50C.

Answer: <https://biology-forums.com/index.php?topic=417088>

Question 456

"The oceanic crust is older than the continental crust because it is deeper." Evaluate this statement.

- A) This statement is false. The land that is now considered continental was previously oceanic crust, so this comparison is meaningless.
- B) This statement is false. The oceanic crust experiences more subduction and is younger than the continental crust.
- C) This statement is true. The continental crust floats much higher on Earth's surface than the oceanic crust.
- D) This statement is true, but the speaker should have also mentioned that the oceanic crust is known to be older by the type of rock it is (basalt).

Answer: <https://biology-forums.com/index.php?topic=418245>

Question 457

True or False: Mass movement occurs when the resisting forces exceed the driving forces.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418266>

Question 458

True or False: Library research is essential during the early stages of a scientific study.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418363>

Question 459

A body of rock or regolith with sufficient porosity and permeability to provide water in useful quantities to wells or springs is called a(n)

- A) water table.

- B) aquifer.
- C) aquitard.
- D) saturated zone.

Answer: <https://biology-forums.com/index.php?topic=417239>

Question 460

True or False: Ionic bonds, metallic bonds, or a mixture of both dominate most minerals.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=416981>

Question 461

Which is the primary factor that causes ground water to flow more slowly than surface water?

- A) temperature
- B) pressure
- C) friction
- D) small pore sizes

Answer: <https://biology-forums.com/index.php?topic=417130>

Question 462

If Earth's remaining glaciers melt, how would the global sea level change?

- A) the sea level would rise about 80 m
- B) hardly at all; most of the water would be absorbed by porous land and by increasing size of freshwater lakes and rivers
- C) the sea level would rise about 8 m
- D) the sea level would rise about 120 m

Answer: <https://biology-forums.com/index.php?topic=417856>

Question 463

True or False: Minerals form under a narrow range of physical and chemical conditions.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=416938>

Question 464

A model for Earth elevation based on oceanic crust being thinner than continental crust and oceanic crust being denser than continental crust results in

- A) reasonable estimates of crustal thickness and crustal densities.
- B) continental crust being denser than oceanic crust.
- C) continental crust and oceanic crust having the same densities.
- D) continental and oceanic crust being too thick.

Answer: <https://biology-forums.com/index.php?topic=417970>

Question 465

Judge the following sentences according to the criteria given below. Ice cubes are dropped in a glass of warm water and float to the top. The ice cubes rose to the top of the glass of warm water because the frozen ice is colder than the warm water.

- A) The assertion is correct but the reason is incorrect.
- B) Both the assertion and the reason are incorrect.
- C) The assertion and the reason are both correct, and the reason is valid.
- D) The assertion is incorrect but the reason is correct.
- E) The assertion and the reason are both correct, but the reason is invalid.

Answer: <https://biology-forums.com/index.php?topic=417235>

Question 466

Which of the following is not a result of a mountain becoming too high?

- A) thrust faults
- B) volcanism
- C) melting in the mantle

D) normal faults

Answer: <https://biology-forums.com/index.php?topic=417883>

Question 467

How can surface uplift happen without forming mountains?

Answer: <https://biology-forums.com/index.php?topic=417998>

Question 468

A model for Earth elevation based only on oceanic crust being thinner than continental crust results in

- A) continental crust being denser than oceanic crust.
- B) reasonable estimates of crustal thickness and crustal densities.
- C) oceanic crust being denser than continental crust.
- D) continental crust and oceanic crust having the same densities.

Answer: <https://biology-forums.com/index.php?topic=417969>

Question 469

The _____ is comprised of Iron and Nickel with as much as 10 percent lighter elements.

- A) core (inner)
- B) crust (continental)
- C) crust (oceanic)
- D) mantle
- E) core (outer)

Answer: <https://biology-forums.com/index.php?topic=418175>

Question 470

A seismic station records an earthquake that has a maximum surface wave amplitude of 50 mm and the s-wave arrives 2 seconds after the p-wave.

The Richter magnitude of this earthquake is

- A) 3.
- B) 4.
- C) 5.
- D) 6.

Answer: <https://biology-forums.com/index.php?topic=417524>

Question 471

The Greek word *clastos*, from which clastic rocks are named, means

- A) reformed.
- B) broken.
- C) cemented.
- D) dissolved.

Answer: <https://biology-forums.com/index.php?topic=416929>

Question 472

How fast is North America moving away from Africa?

- A) 3 cm/year
- B) 3 km/year
- C) 3 m/year
- D) 3 mm/year

Answer: <https://biology-forums.com/index.php?topic=417589>

Question 473

True or False: Minerals are the fundamental building blocks of Earth.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=416936>

Question 474

How did Niagara Falls form?

Answer: <https://biology-forums.com/index.php?topic=417801>

Question 475

What are pores?

- A) holes caused by air bubbles in forming rock
- B) open spaces between minerals where water enters
- C) pits left in rock when salt crystals dry and wash away
- D) holes formed where plants have sprouted through rock

Answer: <https://biology-forums.com/index.php?topic=417337>

Question 476

Geochemical studies of rocks show that earth is approximately _____ years old.

- A) 4.56 billion
- B) 30 billion
- C) 6 thousand
- D) 500 million

Answer: <https://biology-forums.com/index.php?topic=416785>

Question 477

Due to the nature of the movement of a wave, which type of wave cannot move through gases or liquids?

- A) S-waves
- B) body waves
- C) P-waves
- D) surface waves

Answer: <https://biology-forums.com/index.php?topic=418048>

Question 478

Glacial striations form by

- A) plucking.
- B) flow.
- C) abrasion.
- D) melting.

Answer: <https://biology-forums.com/index.php?topic=417528>

Question 479

What is our primary evidence of past ice ages?

Answer: <https://biology-forums.com/index.php?topic=417562>

Question 480

What determines the chemical composition of the dust particles that form around a protostar?

- A) heat
- B) pressure
- C) gravity of nearby objects
- D) contents of the star that exploded to form the protostar

Answer: <https://biology-forums.com/index.php?topic=418207>

Question 481

Critique the following statement made by a student looking at a TEM image of dolomite.

"The TEM image shows regular patterns of small dots, large dots, and tiny dots. The formula for dolomite is $\text{CaMg}[\text{CO}_3]_2$. I think the large dots must be the carbonate groups."

- A) The student is incorrect because the image must not be dolomite. Since there are four types of atoms, the TEM for dolomite should have four sizes of dots.
- B) The student is probably correct because four atoms will make a larger mark than one atom.
- C) The student is probably incorrect because the single metal atoms have a denser arrangement of electrons than the carbonate group.
- D) The student is correct.

Answer: <https://biology-forums.com/index.php?topic=416839>

Question 482

Which two main factors determine the resisting strength that occurs in a mass movement?

- A) rock roughness and density
- B) friction and rock roughness
- C) rock friction and cohesion
- D) rock density and cohesion

Answer: <https://biology-forums.com/index.php?topic=418186>

Question 483

A narrow, knife-edge ridge separating glacially eroded valleys or cirques is called a(n)

- A) horn.
- B) esker.
- C) arete.
- D) drumlin.

Answer: <https://biology-forums.com/index.php?topic=417462>

Question 484

How much greater is the shear stress of the Athabasca Glacier than the Mississippi River?

- A) 4 times
- B) 10 times
- C) 100 times
- D) 2 times

Answer: <https://biology-forums.com/index.php?topic=417354>

Question 485

The correct order of the inner planets is

- A) (closest to sun) Mercury; Venus; Mars; Earth (farthest to sun)
- B) (closest to sun) Mars; Earth; Venus; Mercury (farthest to sun)
- C) (closest to sun) Mercury; Earth; Venus; Mars (farthest to sun)
- D) (closest to sun) Mercury; Venus; Earth; Mars (farthest to sun)

Answer: <https://biology-forums.com/index.php?topic=418282>

Question 486

Which of the following is not a possible product of tides?

- A) tidal channels
- B) chemical sediment
- C) clastic sediment
- D) electricity

Answer: <https://biology-forums.com/index.php?topic=417656>

Question 487

Look up the chemical formula for the mineral graphite. Is it composed of molecules?

Answer: <https://biology-forums.com/index.php?topic=417055>

Question 488

What substitution did Glatzmaier and Roberts make in their model?

- A) straight-angled rotation of Earth for its real tilted axis
- B) thermal convection for compositional convection
- C) average density in place of specific densities
- D) the viscosity of water for the viscosity of the outer core

Answer: <https://biology-forums.com/index.php?topic=417211>

Question 489

Glaciers cover _____ of Earth's surface and contain _____ of Earth's fresh water.

- A) 14%, 63%
- B) 1%, 90%

C) 10%, 84%

D) 5%, 41%

Answer: <https://biology-forums.com/index.php?topic=417306>

Question 490

This mineral group has cleavage in two directions at 60 and 120 degrees.

A) olivine

B) feldspar

C) pyroxene

D) amphibole

Answer: <https://biology-forums.com/index.php?topic=417019>

Question 491

Which of the following is not a common way to define the distance between an earthquake and a seismometer that records it?

A) by angular distance to a satellite

B) by angular distance to Earth's center

C) by straight-line distance through Earth

D) by surface distance around Earth

Answer: <https://biology-forums.com/index.php?topic=418058>

Question 492

Which condition is least important for wind to have a major effect on landscape?

A) frequent strong winds

B) parent rock type

C) abundant loose-surface particles

D) sparse vegetation

Answer: <https://biology-forums.com/index.php?topic=417837>

Question 493

Mount Etna in Sicily is geologically interesting because it...

A) is a site of many earthquakes.

B) is an active volcano.

C) has many landslides.

D) is often flooded.

Answer: <https://biology-forums.com/index.php?topic=416783>

Question 494

Which type of water would not carry dissolved metals?

A) water that had flowed quickly through the aquifer

B) hot water

C) water that had been underground for a long period of time

D) water that had been deep in the Earth

Answer: <https://biology-forums.com/index.php?topic=417168>

Question 495

Why do plate traces appear to have a curved path when plotted on a map?

Answer: <https://biology-forums.com/index.php?topic=417755>

Question 496

Which of the following must have occurred in order for the inner planets to grow?

A) temperatures cooled throughout the nebula

B) solar wind blasted gases out of the nebula

C) explosions in the Sun

D) dust was delivered to the nebula by asteroids and meteors

Answer: <https://biology-forums.com/index.php?topic=418215>

Question 497

What process forms rocks with porphyritic texture?

- A) slow cooling combined with pressure underground
- B) slow cooling below ground
- C) a mixture of quick and slow cooling as rock moves from a warmer environment to a cooler one
- D) quick cooling above ground

Answer: <https://biology-forums.com/index.php?topic=417112>

Question 498

Sea levels at the New York tide gage have varied greatly from year to year because of

- A) melting and freezing of arctic ice.
- B) weather conditions.
- C) rising and falling of local land forms.
- D) changes in tides due to the gravity of other planets.

Answer: <https://biology-forums.com/index.php?topic=417681>

Question 499

The Old Man in the Mountain, a granite cliff resembling a man's face located in the White Mountains of New Hampshire, collapsed in spring of 2003.

What type of mass movement does this occurrence represent?

- A) a fall
- B) a slump
- C) a flow
- D) a slide

Answer: <https://biology-forums.com/index.php?topic=418172>

Question 500

Which planets formed first in our solar system?

- A) the asteroid belt
- B) the inner and outer planets formed at the same time
- C) the inner planets
- D) the outer planets

Answer: <https://biology-forums.com/index.php?topic=418296>

Question 501

Landslides, rock falls, and floods illustrate

- A) that Earth is made of rock.
- B) that Earth is very old.
- C) that the crust of Earth is stationary and static.
- D) that Earth is dynamic.

Answer: <https://biology-forums.com/index.php?topic=416808>

Question 502

A student scoops a bucket of water and sediment from the side of a stream. A second student scoops a bucket of water and sediment from the center of the stream. What is the most probable outcome?

- A) The first student would have large rocks and boulders because the stream flow sweeps these out of the way and to the sides. The second student might have small rocks and pebbles because the stream wears the rocks down where it flows quickly in the middle.
- B) The first student would have mud and small rocks because the stream flows slowly at the sides. The second student might have large rocks and pebbles because the stream probably flows more quickly in the middle.
- C) The first student would have mud and small rocks because the stream flows slowly at the sides. The second student might have mostly mud because mud settles to the bottom.
- D) The first student would have mud and medium-to-large size rocks that get stuck in the mud at the sides. The second student might have pebbles.

Answer: <https://biology-forums.com/index.php?topic=417482>

Question 503

Over time, shorelines

- A) vary by minor features but maintain the same basic outline.
- B) tend to increase seaward due to sediment deposition.
- C) tend to retreat landward by erosion.
- D) may move seaward or landward.

Answer: <https://biology-forums.com/index.php?topic=417579>

Question 504

Yardangs form from

- A) igneous intrusions, which are left standing after sedimentary rock around it has been eroded.
- B) volcanic rock, which is soft and easily abraded.
- C) sedimentary rock, which is strong enough to stay standing but soft enough to abrade.
- D) metamorphic rock, which is strong enough to withstand extensive abrasion without being completely eroded and swept away.

Answer: <https://biology-forums.com/index.php?topic=417912>

Question 505

Judge the following sentence according to the criteria given below. Ice cubes rise to the top of a glass of water because ice is less dense than water.

- A) The assertion and the reason are both correct, and the reason is valid.
- B) The assertion is correct but the reason is incorrect.
- C) Both the assertion and the reason are incorrect.
- D) The assertion is incorrect but the reason is correct.
- E) The assertion and the reason are both correct, but the reason is invalid.

Answer: <https://biology-forums.com/index.php?topic=417233>

Question 506

All of the following human activities will increase the sediment load in a river except

- A) large-scale construction projects.
- B) logging of forests on steep slopes.
- C) converting cropland to natural vegetation.
- D) surface mining for coal.

Answer: <https://biology-forums.com/index.php?topic=417003>

Question 507

The largest typical size for grains of sand that can be commonly moved by wind is

- A) 1.0 centimeter.
- B) 0.5 millimeter.
- C) 1.0 millimeter.
- D) 5 micrometers.

Answer: <https://biology-forums.com/index.php?topic=417848>

Question 508

The greater the difference in air pressure, the _____.

- A) slower the wind speed
- B) faster the wind speed
- C) more horizontal the wind direction
- D) more vertical the wind direction

Answer: <https://biology-forums.com/index.php?topic=417958>

Question 509

Choose the option that places the rock types in order from most brittle at surface temperature to most plastic.

- A) shale, basalt, sandstone
- B) quartzite, mudstone, sandstone
- C) rock salt, schist, basalt
- D) granite, limestone, marble

Answer: <https://biology-forums.com/index.php?topic=417382>

Question 510

What is Canada's average depth of erosion?

- A) 2 m
- B) 20 m
- C) 200 m
- D) 200 km

Answer: <https://biology-forums.com/index.php?topic=417408>

Question 511

What does the Latin word folium mean?

- A) orientation
- B) layer
- C) leaf
- D) plane

Answer: <https://biology-forums.com/index.php?topic=417659>

Question 512

Kettle lakes form by

- A) plucking of huge rocks.
- B) meltwater action under ice.
- C) abrasion of ice.
- D) melting blocks of ice.

Answer: <https://biology-forums.com/index.php?topic=417411>

Question 513

Evaluate the statement. "Lateral moraines may form at any glacier."

- A) This statement is true.
- B) This statement is false. Lateral moraines form only at valley glaciers.
- C) This statement is true, but only under certain favorable conditions.
- D) This statement is false. Lateral moraines form only at ice caps.

Answer: <https://biology-forums.com/index.php?topic=417375>

Question 514

Which property of waves has been most important in allowing seismologists to identify the boundaries of the inner core/outer core and the outer core/mantle?

- A) wave reflection
- B) wave refraction
- C) wave velocity
- D) wave amplitude

Answer: <https://biology-forums.com/index.php?topic=418066>

Question 515

The following equation is what type of chemical reaction? $2 \text{KAlSi}_3\text{O}_8(\text{s}) + 11 \text{H}_2\text{O} \rightarrow 2 \text{K}^+(\text{aq}) + 2 \text{OH}^-(\text{aq}) + 4 \text{H}_4\text{SiO}_4(\text{aq}) + \text{Al}_2\text{Si}_2\text{O}_5(\text{OH})_4(\text{s})$

- A) dissolution
- B) acid-base
- C) hydrolysis
- D) oxidation

Answer: <https://biology-forums.com/index.php?topic=417346>

Question 516

What does the above experiment help scientists to calculate?

- A) the velocity of a wave
- B) the effect of a medium on wave travel
- C) the force of a wave
- D) the magnitude of a wave

Answer: <https://biology-forums.com/index.php?topic=418070>

Question 517

Wind most commonly picks up particles by

- A) abrasion.
- B) flow force.
- C) shear force.
- D) plucking.

Answer: <https://biology-forums.com/index.php?topic=417881>

Question 518

Which feature is not usually included on a geologic map?

- A) fold axes
- B) strike-and-dip symbols
- C) displacement directions along faults
- D) altitude measurements

Answer: <https://biology-forums.com/index.php?topic=417358>

Question 519

The texture of an igneous rock consisting of coarse-grained crystals is called

- A) porphyritic.
- B) glassy.
- C) aphanitic.
- D) phaneritic.

Answer: <https://biology-forums.com/index.php?topic=417205>

Question 520

What is a difference between rounded mountains and pointed ones?

- A) the amount of uplift
- B) rocky type
- C) pointed mountains are older
- D) rounded mountains have experienced more mass movement

Answer: <https://biology-forums.com/index.php?topic=418246>

Question 521

Which of the following is not a factor used to describe mass-movement processes?

- A) water participation
- B) nature of the solid mixture
- C) velocity of motion
- D) type of motion

Answer: <https://biology-forums.com/index.php?topic=418178>

Question 522

About what fraction of electricity in the United States comes from coal?

- A) one half
- B) one third
- C) one tenth
- D) one quarter

Answer: <https://biology-forums.com/index.php?topic=418318>

Question 523

Which piece of evidence does not point to the accretion of a wet Earth?

- A) craters on the Moon
- B) Moon rocks compared to Earth rocks
- C) meteor water ratio compared to Earth rocks
- D) zircon crystals in granite

Answer: <https://biology-forums.com/index.php?topic=418265>

Question 524

How does a seismograph work?

- A) Infrared movement sensors are wired to an inverter that changes the signals to binary so computers can analyze the data.
- B) Rotating drums are marked by pens when Earth shakes.
- C) Fluid-filled sensors register shaking signals and feed them to recorders.
- D) Sensitive triggers record digital signals and change them into binary so computers can analyze the data.

Answer: <https://biology-forums.com/index.php?topic=418044>

Question 525

When did the continents acquire outlines similar to the ones they have now?

- A) Mesozoic Era
- B) Paleozoic Era
- C) Devonian Period
- D) Cenozoic Era

Answer: <https://biology-forums.com/index.php?topic=417680>

Question 526

What observation supports the hypothesis that the slab-pull force is the primary cause of plate motion?

- A) Plumes are the deep upwelling component of convection with seismically slow velocities.
- B) Earthquakes and volcanoes are concentrated at plate boundaries.
- C) Plates with long subduction zones move faster than plates with short subduction-zones.
- D) Divergent plate boundaries represent all of the upwelling expected by mantle convection.

Answer: <https://biology-forums.com/index.php?topic=417739>

Question 527

The correct size order of pyroclastic material (from smallest to largest) is

- A) lapilli; ash; bomb.
- B) ash; lapilli; bomb.
- C) bomb; lapilli, ash.
- D) bomb; ash; lapilli.

Answer: <https://biology-forums.com/index.php?topic=417217>

Question 528

Which two elements form most of Earth's core?

- A) iron and sulfur
- B) iron and nickel
- C) iron and peridotite
- D) iron and silicon

Answer: <https://biology-forums.com/index.php?topic=418076>

Question 529

In order to use a radioactive-decay scheme to calculate the age of a mineral all of the following conditions must be met except

- A) the half-life must be known.
- B) no parent or daughter isotopes can be gained or lost from the mineral once decay starts.
- C) no daughter isotope present prior to the start of parental decay or the amount of daughter can be determined.
- D) only one radioactive isotope can exist in the rock so that cross-decay doesn't occur.

Answer: <https://biology-forums.com/index.php?topic=417936>

Question 530

Which of the following statements is not true of cohesion?

- A) It is greater when particles are smaller.
- B) It is possible along contact points only.
- C) It is the attraction of particles to each other at the atomic level.
- D) It works with resistance to create the resisting strength of a rock formation.

Answer: <https://biology-forums.com/index.php?topic=418188>

Question 531

What would happen if you had 35 years of data on the stream that you could use for this calculation, but in the last 15 years, urbanization has made the drainage basin virtually unrecognizable?

Answer: <https://biology-forums.com/index.php?topic=417048>

Question 532

What lies just above the water table?

- A) empty cavern space

- B) an unsaturated zone
- C) a saturated zone
- D) a layer of shale

Answer: <https://biology-forums.com/index.php?topic=417084>

Question 533

Subduction zones occur at

- A) a transform boundary.
- B) a divergent boundary.
- C) a convergent boundary.
- D) neither a divergent, convergent or transform boundary.

Answer: <https://biology-forums.com/index.php?topic=416798>

Question 534

According to the rock cycle, the process by which fragments become sediments is called

- A) weathering and erosion.
- B) precipitation and lithification.
- C) transportation and deposition.
- D) cooling and crystallization.

Answer: <https://biology-forums.com/index.php?topic=417037>

Question 535

Subduction zones occur

- A) at transform plate boundaries.
- B) at convergent plate boundaries.
- C) where there is volcanic action.
- D) at divergent plate boundaries.

Answer: <https://biology-forums.com/index.php?topic=418343>

Question 536

What causes warm springs?

- A) extreme kinetic energy and pressure from emerging water
- B) proximity to tectonic action
- C) deep circulation of water
- D) proximity to magma

Answer: <https://biology-forums.com/index.php?topic=417123>

Question 537

Which scientist's theory was proved wrong by the discovery of radioactivity as a heat source for Earth?

- A) James Ussher
- B) James Hutton
- C) Lord Kelvin
- D) John Joly

Answer: <https://biology-forums.com/index.php?topic=417842>

Question 538

For a glacier to float in water, the water must be

- A) at least 10 m deep.
- B) half as deep as the iceberg is thick.
- C) almost as deep as the iceberg is thick.
- D) two times as deep as the iceberg is thick.

Answer: <https://biology-forums.com/index.php?topic=417381>

Question 539

A felsic igneous rock metamorphosed to low metamorphic grade would become a(n)

- A) gneiss.
- B) schist.

- C) slate.
- D) amphibolite.

Answer: <https://biology-forums.com/index.php?topic=417603>

Question 540

True or False: Seismic tomography shows regions of the mantle where seismic waves travel slightly slower or slightly faster than in adjacent rock.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417301>

Question 541

Which statement about iron oxidation is false?

- A) Limonite is an iron hydroxide mineral.
- B) Iron is one of the most abundant minerals in Earth's crust, and iron oxidation is a common reaction in chemical weathering on Earth.
- C) Hematite is the most common red iron oxide mineral.
- D) Oxidation of iron helps to protect rocks against weathering.

Answer: <https://biology-forums.com/index.php?topic=417350>

Question 542

One way to distinguish metamorphic rocks from igneous rocks is

- A) color.
- B) composition.
- C) density.
- D) mineralogy.

Answer: <https://biology-forums.com/index.php?topic=416990>

Question 543

The genetic classification of rock requires making _____ regarding their origins.

- A) hypotheses
- B) experiments
- C) observations
- D) inferences

Answer: <https://biology-forums.com/index.php?topic=416932>

Question 544

Where is the most mature soil found on a stream terrace formation?

- A) soil age is mixed throughout the terraces
- B) under the densest layer of vegetation
- C) on the highest-elevation terrace
- D) on the lowest-elevation terrace

Answer: <https://biology-forums.com/index.php?topic=416925>

Question 545

Rocks rich in magnesium and iron are called

- A) felsic.
- B) magnesianic.
- C) ferric.
- D) mafic.

Answer: <https://biology-forums.com/index.php?topic=417180>

Question 546

Which event does not occur during the decay of potassium-40 isotopes?

- A) A proton is ejected from the nucleus.
- B) A neutron changes to a proton and emits an electron.
- C) An electron orbiting near the nucleus enters into the nucleus and combines with a proton to produce a neutron.
- D) Electrons rearrange, producing x-rays.

Answer: <https://biology-forums.com/index.php?topic=417886>

Question 547

Although clay has _____ porosity it does not make a good aquifer because it has _____ permeability

- A) low, high
- B) high, low
- C) high, high
- D) low, low

Answer: <https://biology-forums.com/index.php?topic=417261>

Question 548

The Greek word lithos means

- A) affected by water.
- B) pressure.
- C) heated.
- D) rock.

Answer: <https://biology-forums.com/index.php?topic=416935>

Question 549

What was the effect of glaciation on soil fertility?

- A) It increased fertility all over Canada.
- B) It decreased fertility in northern Canada, but increased it in the Ohio River basin.
- C) It increased fertility in northern Canada, but decreased it in the Ohio River basin.
- D) It decreased fertility all over Canada.

Answer: <https://biology-forums.com/index.php?topic=417438>

Question 550

Judge the following sentence according to the criteria given below grains are easier to move in water than air because the grains effectively weigh less in water than in air.

- A) The assertion is correct but the reason is incorrect.
- B) The assertion and the reason are both correct, and the reason is valid.
- C) Both the assertion and the reason are incorrect.
- D) The assertion is incorrect but the reason is correct.
- E) The assertion and the reason are both correct, but the reason is invalid.

Answer: <https://biology-forums.com/index.php?topic=418006>

Question 551

Where would you expect the thickest regolith?

- A) a rocky hillside in Utah
- B) a Hawaiian volcano peak
- C) the Gobi desert
- D) the Appalachian foothills

Answer: <https://biology-forums.com/index.php?topic=418198>

Question 552

How does being an isotope influence the charge of the atom?

Answer: <https://biology-forums.com/index.php?topic=417064>

Question 553

True or False: Anticlines and synclines are distinguished by noting the strike directions of rocks forming the limbs of the folds.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417500>

Question 554

Why does adding water to sand increase the angle of repose for the material?

- A) Water increases friction.
- B) Water decreases friction.

- C) Water increases the oversteep angle.
D) Water increases cohesion.

Answer: <https://biology-forums.com/index.php?topic=418192>

Question 555

What is the ratio of maximum magnification of a compound microscope to the maximum magnification of a transmission electron microscope?

- A) 1:1 000 000
B) 1:10 000
C) 1:40
D) 1:6.02 x 10²³

Answer: <https://biology-forums.com/index.php?topic=416833>

Question 556

_____ are a seasonal phenomena that occurs when moist air is drawn onto a continent from the adjacent ocean.

- A) Typhoons
B) Tsunami
C) Hurricanes
D) Monsoons

Answer: <https://biology-forums.com/index.php?topic=418001>

Question 557

Which igneous rocks are typically the lightest in color?

- A) felsic
B) intermediate
C) ultramafic
D) mafic

Answer: <https://biology-forums.com/index.php?topic=417194>

Question 558

True or False: Mantle convection explains why heat flow is greater through the continents than through the seafloor.

- A) True
B) False

Answer: <https://biology-forums.com/index.php?topic=417295>

Question 559

Quartz sandstone and arkose may form from the weathering of

- A) gabbro.
B) diorite.
C) granite.
D) basalt.

Answer: <https://biology-forums.com/index.php?topic=417488>

Question 560

The ability of a porous material to permit fluid flow through the material is called

- A) precipitation.
B) permeability.
C) dissolution.
D) porosity.

Answer: <https://biology-forums.com/index.php?topic=417218>

Question 561

Streams preferentially erode _____ and _____ valleys where rock is most easily eroded.

- A) shallow, narrow
B) deep, narrow
C) deep, wide
D) shallow, wide

Answer: <https://biology-forums.com/index.php?topic=417015>

Question 562

Which statement about John Joly's salty ocean theory to calculate Earth's age is false?

- A) Joly's method was less accurate than Kelvin's.
- B) Joly underestimated the amount of precipitated rock salt in the world.
- C) John Joly's theory gives a more accurate estimate of Earth's age now that more accurate observational data is available.
- D) Joly believed that the ocean began as a salty body of water and that salt entered it from rock sources at a steady rate.

Answer: <https://biology-forums.com/index.php?topic=417835>

Question 563

According to the rock cycle, crystallization turns magma into

- A) sediment.
- B) igneous rock.
- C) sedimentary rock.
- D) metamorphic rock.

Answer: <https://biology-forums.com/index.php?topic=417010>

Question 564

What causes hot springs?

- A) deep circulation of water
- B) proximity to magma
- C) proximity to tectonic action
- D) extreme kinetic energy and pressure from emerging water

Answer: <https://biology-forums.com/index.php?topic=417119>

Question 565

What do the minerals gold, sulfur, and talc have in common?

- A) They are expensive to purchase.
- B) They are soft in texture.
- C) They are yellow in color.
- D) They are used almost as they are when removed from the ground.

Answer: <https://biology-forums.com/index.php?topic=416905>

Question 566

Which of the following is not a soil conservation measure?

- A) planting grass on water courses
- B) terracing
- C) planting corn in vertical rows
- D) planting patches of grass between patches of corn

Answer: <https://biology-forums.com/index.php?topic=418115>

Question 567

What geologic feature affected the accuracy of John Pratt's survey results?

- A) Ayer's Rock in Australia
- B) the Grand Canyon (Colorado portion)
- C) the Nile River valley
- D) the Himalayan mountains

Answer: <https://biology-forums.com/index.php?topic=417818>

Question 568

What is one way that polymorph minerals, such as aluminum-silicates, change from one form to another?

- A) Other minerals join the polymorphs during contact with igneous intrusions.
- B) They break up and change form during resedimentation.
- C) Fluid metamorphism allows other elements to fit between the main mineral bonds.
- D) Temperature and pressure conditions change with depth, causing metamorphism.

Answer: <https://biology-forums.com/index.php?topic=417661>

Question 569

Deep incised river canyons most likely form through some combination of tectonic _____ and climate change that resulted in _____ precipitation.

- A) uplift, more
- B) subsidence, more
- C) uplift, less
- D) subsidence, less

Answer: <https://biology-forums.com/index.php?topic=417009>

Question 570

Who first inferred that the same geologic processes occurred repeatedly over time?

- A) ancient Greek philosophers
- B) Charles Lyell
- C) ancient Roman philosophers
- D) James Hutton

Answer: <https://biology-forums.com/index.php?topic=418334>

Question 571

What is beach drift?

- A) movement of a beach outline due to longshore currents
- B) wood and debris that drift up onto the beach during storms
- C) movement of a beach outline due to erosion and deposition
- D) movement of beach sediment due to swash and backwash

Answer: <https://biology-forums.com/index.php?topic=417619>

Question 572

Rockfalls, landslides, and glacier movement are processes that are due to which physical principle?

- A) heat
- B) kinetic energy
- C) potential energy
- D) Hooke's law

Answer: <https://biology-forums.com/index.php?topic=418347>

Question 573

A tectonically quiet zone results when

- A) plates move in the same direction at the same velocity.
- B) crust materials are soft.
- C) the lithosphere is not too dense.
- D) there are many small faults.

Answer: <https://biology-forums.com/index.php?topic=417633>

Question 574

What is the average rate of uplift of the Andes Mountains?

- A) 7 mm/year
- B) 5 mm/year
- C) 3.3 mm/year
- D) 12 mm/year

Answer: <https://biology-forums.com/index.php?topic=417893>

Question 575

Comparing the characteristics of two minerals, a student stated, "These two minerals are identical because they are both transparent and are six sided." Critique this statement.

- A) This statement is probably true, but the chemical composition would need to be known.
- B) This statement is true.
- C) This statement is false.
- D) There are different types of six-sided crystals, so there is not enough information to say they are identical.

Answer: <https://biology-forums.com/index.php?topic=416793>

Question 576

What type of minerals dissolves best in water?

- A) ionically bonded minerals
- B) covalently bonded minerals
- C) single-element minerals
- D) metallicly bonded minerals

Answer: <https://biology-forums.com/index.php?topic=416851>

Question 577

Which state would you expect to have the most Histosols soil?

- A) Nevada
- B) Alaska
- C) California
- D) Florida

Answer: <https://biology-forums.com/index.php?topic=418085>

Question 578

Compression causes

- A) a decrease in elevation because it shortens and thickens the lower crust.
- B) an increase in elevation because it shortens and thickens the lower crust.
- C) a decrease in elevation because it forms reverse faults.
- D) an increase in elevation because it forms reverse faults.

Answer: <https://biology-forums.com/index.php?topic=417833>

Question 579

Which pair of processes transforms metamorphic rocks to igneous rocks?

- A) application of heat and pressure
- B) melting and precipitation
- C) melting and crystallization
- D) transportation and lithification

Answer: <https://biology-forums.com/index.php?topic=416986>

Question 580

If uplift increases elevation, which process most effectively lowers elevation?

- A) shear forces
- B) erosion
- C) mass movement
- D) earthquakes

Answer: <https://biology-forums.com/index.php?topic=418244>

Question 581

Evaluate the following statement. "Coastlines are straighter when they result from relative sea-level rise than when they result from relative sea-level fall."

- A) The statement is false. Sea-level fall results in straighter coastlines than sea-level rise.
- B) The statement is sometimes true, but depends more on barrier islands than on the rise and fall of the sea.
- C) This statement is true.
- D) The statement is sometimes true, but depends on the type of rock involved in each case.

Answer: <https://biology-forums.com/index.php?topic=417662>

Question 582

At convergent boundaries earthquake focal depths _____ with increasing distance from the trench.

- A) rotate
- B) increase
- C) decrease
- D) erupt

Answer: <https://biology-forums.com/index.php?topic=417705>

Question 583

Judge the following sentence according to the criteria given below Ground water moves along the top of the water table from high elevation to low elevation because the slope of the water table determines the direction of ground-water flow.

- A) The assertion and the reason are both correct, but the reason is invalid.
- B) Both the assertion and the reason are incorrect.
- C) The assertion is correct but the reason is incorrect.
- D) The assertion is incorrect but the reason is correct.
- E) The assertion and the reason are both correct, and the reason is valid.

Answer: <https://biology-forums.com/index.php?topic=417252>

Question 584

Which mineral is not a polymorph of Al_2SiO_5 ?

- A) kyanite
- B) sillimanite
- C) andalusite
- D) garnet

Answer: <https://biology-forums.com/index.php?topic=417552>

Question 585

Which of the following factors is not related to a lahar?

- A) destruction of vegetation
- B) tectonic fault movement
- C) explosions deposit loose ash and lapilli
- D) snowmelt

Answer: <https://biology-forums.com/index.php?topic=418220>

Question 586

Which of the following landslides was partly caused by fire and rain?

- A) near Lake City, Colorado, 2004
- B) Madison Canyon, Montana, 1959
- C) Yosemite National Park, California, 1996
- D) San Bernardino Mountains, California, 2003

Answer: <https://biology-forums.com/index.php?topic=418166>

Question 587

Most meteorites originate in the

- A) Sun.
- B) Halley's comet.
- C) Kuiper belt.
- D) Astroid belt.

Answer: <https://biology-forums.com/index.php?topic=418304>

Question 588

Earthquake damage occurs when

- A) strength exceeds strain of materials.
- B) strain exceeds strength of materials.
- C) stress exceeds strength of materials.
- D) stress exceeds strain of materials.

Answer: <https://biology-forums.com/index.php?topic=417439>

Question 589

Judge the following sentence according to the criteria given below. Seafloor elevations decrease away from mid-ocean ridges because cooling lithosphere contracts, becomes denser and sinks down into the weak asthenosphere.

- A) Both the assertion and the reason are incorrect.
- B) The assertion and the reason are both correct, but the reason is invalid.

- C) The assertion and the reason are both correct, and the reason is valid.
D) The assertion is correct but the reason is incorrect.
E) The assertion is incorrect but the reason is correct.

Answer: <https://biology-forums.com/index.php?topic=417697>

Question 590

A student notes that a rock contains mica and plagioclase feldspar and concludes that the rock is an intermediate rock. What piece of further information could best determine if the student's conclusion was the correct one?

- A) the amphibole content of the rock
B) the silicate content of the rock
C) the color of the rock
D) the grain size of the crystals

Answer: <https://biology-forums.com/index.php?topic=417099>

Question 591

Comment on the accuracy and usefulness of the atmospheric calcium additions calculation that was conducted according to Gile and Grossman's dust trap experiment.

- A) The calculations were very accurate, but not useful because the hypothesis was not clear.
B) The data and hypothesis were extremely accurate and useful.
C) It was not an accurate calculation, and therefore not that useful.
D) It was perhaps not very accurate, but nonetheless a useful hypothesis.

Answer: <https://biology-forums.com/index.php?topic=418097>

Question 592

Which of the following statements pertaining to rock formations at a spring is false?

- A) The rock may be tinted orange on account of bacteria.
B) The rock forms by reacting with mild acid to produce calcite.
C) The rock may enclose vegetation as it builds outwards.
D) The rock forms by reacting with precipitation to produce halite.

Answer: <https://biology-forums.com/index.php?topic=416902>

Question 593

If all other variables were the same, what differences would you expect between a humid and an arid climate in soil formation?

- A) The humid climate would have more mineral dissolution from near-surface horizons and a greater accumulation of clay, oxide, and hydroxide.
B) The humid climate would have less mineral dissolution from near-surface horizons and a greater accumulation of clay, oxide, and hydroxide.
C) The humid climate would have less mineral dissolution from near-surface horizons and less accumulation of clay, oxide, and hydroxide.
D) The humid climate would have more mineral dissolution from near-surface horizons and less accumulation of clay, oxide, and hydroxide.

Answer: <https://biology-forums.com/index.php?topic=418079>

Question 594

What percentage of the 339 natural isotopes are unstable?

- A) 99.9
B) 10.0
C) 20.6
D) 50.6

Answer: <https://biology-forums.com/index.php?topic=417924>

Question 595

Judge the following sentence according to the criteria given below. Wave refraction focuses erosion at headlands and favors deposition in adjacent bays along the shore because the velocity of water decreases as it moves upslope against the force of gravity.

- A) Both the assertion and the reason are incorrect.
B) The assertion is incorrect but the reason is correct.
C) The assertion and the reason are both correct, and the reason is valid.
D) The assertion and the reason are both correct, but the reason is invalid.
E) The assertion is correct but the reason is incorrect.

Answer: <https://biology-forums.com/index.php?topic=417763>

Question 596

What process explains the appearance of a mountain range of gabbro and basalt in a region largely covered with limestone?

- A) The gabbro and basalt formed by igneous processes, and the limestone formed on the lower areas after the gabbro and basalt were pushed into a mountain range.
- B) The limestone formed at the bottom of the sea and the gabbro and basalt were pushed up by tectonic action afterward.
- C) The limestone formed at the bottom of the sea and the gabbro and basalt, which formed in a river valley after the limestone, were pushed up to the surface.
- D) The limestone formed at the bottom of the sea and the gabbro and basalt formed by volcanic action afterward.

Answer: <https://biology-forums.com/index.php?topic=418025>

Question 597

What fraction of Earth's fresh water is held in the Great Lakes?

- A) 1/20
- B) 1/10
- C) 1/5
- D) 1/2

Answer: <https://biology-forums.com/index.php?topic=417417>

Question 598

A seismic station records an earthquake that has a maximum surface wave amplitude of 1 mm and the s-wave arrives 2 seconds after the p-wave. The Richter magnitude of this earthquake is

- A) 1.
- B) 1.5.
- C) 2.
- D) 2.5.

Answer: <https://biology-forums.com/index.php?topic=417519>

Question 599

How long did the supercomputer require to run Glatzmaier and Roberts' original simulation of 45,000 years?

- A) a day
- B) a week
- C) a month
- D) a year

Answer: <https://biology-forums.com/index.php?topic=417215>

Question 600

A sudden stimulus that causes a mass movement is called

- A) a rainstorm.
- B) an avalanche.
- C) an earthquake.
- D) a trigger.

Answer: <https://biology-forums.com/index.php?topic=418297>

Question 601

The _____ is solid and very iron rich.

- A) core (outer)
- B) crust (oceanic)
- C) mantle
- D) crust (continental)
- E) core (inner)

Answer: <https://biology-forums.com/index.php?topic=418179>

Question 602

This mineral's chemical formula only contains silicon and oxygen.

- A) quartz
- B) galena

- C) feldspar
- D) calcite

Answer: <https://biology-forums.com/index.php?topic=417031>

Question 603

Oceanic crust is _____ than continental crust.

- A) less dense and thicker
- B) more dense and thinner
- C) less dense and thinner
- D) more dense and thicker

Answer: <https://biology-forums.com/index.php?topic=417960>

Question 604

What is the definition of pressure?

- A) a force applied perpendicular to a surface
- B) force applied parallel to a surface
- C) a type of normal stress where the forces are equal in all three dimensions
- D) deformation of rock as a result of an applied stress

Answer: <https://biology-forums.com/index.php?topic=417649>

Question 605

How are natural levees formed?

- A) Bedload rises up over river banks during high floods.
- B) Cementing action occurs at the sides of streams as a result of the high velocity of the water.
- C) Minerals precipitate at the sides of rivers when the water is at bankfull level.
- D) Suspended load is deposited when the river covers the floodplain.

Answer: <https://biology-forums.com/index.php?topic=416889>

Question 606

True or False: Work on or within Earth does not require energy.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418372>

Question 607

Ice in a retreating glacier

- A) may move downslope or upslope.
- B) moves downslope.
- C) moves upslope.
- D) remains stationary.

Answer: <https://biology-forums.com/index.php?topic=417330>

Question 608

A mineral that is made of one element is

- A) hematite (iron).
- B) diamond (carbon).
- C) bauxite (aluminum).
- D) quartz (silicon).

Answer: <https://biology-forums.com/index.php?topic=416818>

Question 609

What were the desert valleys of the Great Basin like 17,000 years ago?

Answer: <https://biology-forums.com/index.php?topic=417549>

Question 610

What is the best construction method for a building situated in an earthquake prone area?

Answer: <https://biology-forums.com/index.php?topic=417551>

Question 611

Which of the following is the highest mountain range?

- A) the Alps
- B) the Himalayas
- C) the Rockies
- D) the Andes

Answer: <https://biology-forums.com/index.php?topic=417880>

Question 612

Which is a factor that decreases rock strength along faults?

- A) sedimentation
- B) age
- C) weight of glaciers
- D) flowing water

Answer: <https://biology-forums.com/index.php?topic=417849>

Question 613

A statement or mathematical formula that always succeeds in generalizing data and observations about data without necessarily offering an explanation is called a

- A) theory.
- B) principle.
- C) hypothesis.
- D) rule.

Answer: <https://biology-forums.com/index.php?topic=416789>

Question 614

Which of the following is not a characteristic of a hypothesis?

- A) accounts for existing data
- B) predicts future behavior or data
- C) indisputable
- D) testable

Answer: <https://biology-forums.com/index.php?topic=418330>

Question 615

Stars and planets originate from clouds of gas and dust in space called

- A) universes.
- B) nebulae.
- C) galaxies.
- D) solar systems.

Answer: <https://biology-forums.com/index.php?topic=418290>

Question 616

The principle that states that geologic features that cut across rocks must form after the rocks that they cut through is the Principle of ...

- A) Superposition.
- B) Cross-cutting relationships.
- C) Inclusions.
- D) Original Horizontality.

Answer: <https://biology-forums.com/index.php?topic=417900>

Question 617

What percent of Antarctica's wastage is due to iceberg formation?

- A) 20%
- B) 80%
- C) 60%
- D) 40%

Answer: <https://biology-forums.com/index.php?topic=417387>

Question 618

Which of the following stream properties tends to decrease downstream?

- A) channel width
- B) stream power per area of stream bed
- C) slope of channel bed
- D) sediment load

Answer: <https://biology-forums.com/index.php?topic=416982>

Question 619

Why is there local heterogeneity for the rates of S and P seismic wave travel?

- A) the existence of igneous batholiths, sills, and dikes
- B) variations in rock type
- C) variations in upwelling and sinking zones
- D) variations in tectonic zones

Answer: <https://biology-forums.com/index.php?topic=417147>

Question 620

The oldest dated minerals on Earth are _____ years old.

- A) 4.4 billion
- B) 4.03 billion
- C) 4.56 billion
- D) 542 million

Answer: <https://biology-forums.com/index.php?topic=417953>

Question 621

When did the science community piece together the relative time scale of rocks?

- A) in the eighteenth century
- B) in the last half of the twentieth century
- C) in the nineteenth century
- D) in the fifteenth century

Answer: <https://biology-forums.com/index.php?topic=417798>

Question 622

During the last ice age about 21,000 years ago, the ice would have taken up a volume equal to what depth of the oceans?

- A) 5-10 meters
- B) 70-82 meters
- C) 100-120 meters
- D) 40-55 meters

Answer: <https://biology-forums.com/index.php?topic=417673>

Question 623

If a block of balsa, pine, oak, and rosewood were each submerged into a tub of water, why would the balsa wood project higher above the water than the other blocks of wood?

- A) It is lighter.
- B) It is less dense.
- C) It is a larger block.
- D) It has a lower water content.

Answer: <https://biology-forums.com/index.php?topic=417806>

Question 624

Rocks greater than 2.5 billion years old were formed by

- A) volcanic arcs at convergent boundaries.
- B) uplift of crust.
- C) volcanic arcs at mid-ocean ridges.
- D) collision of tectonic plates.

Answer: <https://biology-forums.com/index.php?topic=417919>

Question 625

A widely applicable and generally accepted explanation for natural phenomena that explains all relevant data is called a

- A) principle.
- B) law.
- C) theory.
- D) hypothesis.

Answer: <https://biology-forums.com/index.php?topic=416790>

Question 626

The energy an object possesses because of its elevation and weight is called

- A) motion energy.
- B) radiation energy.
- C) potential energy.
- D) convection energy.

Answer: <https://biology-forums.com/index.php?topic=416806>

Question 627

Earthquake waves are also called

- A) seismometers.
- B) seismograms.
- C) seismologists.
- D) seismic waves.

Answer: <https://biology-forums.com/index.php?topic=418122>

Question 628

How might hydrothermal ore genesis occur?

- A) Hot seawater rushes through porous rocks and crystallizes on contact with the rocks.
- B) Cold seawater meets hot circulating hydrothermal fluids and precipitation occurs.
- C) Hot water from a hydrothermal vent dissolves ions from one rock mass and reprecipitates them as ore in cooler water.
- D) Two rock masses meet at a hydrothermal vent and the heat of the water dissolves ions from both masses. They recrystallize when they are carried to cooler water.

Answer: <https://biology-forums.com/index.php?topic=417701>

Question 629

What do mountain belts such as the Caledonian and Appalachian Mountains suggest to scientists?

- A) The theory of tectonic plate action is not sufficient to explain all mountain building.
- B) By uniformitarian principles, the tectonic plates may have been in different positions in the past.
- C) The continental lithosphere is more rigid than the oceanic lithosphere.
- D) By evaluation of the deformations, the asthenosphere is more rigid than the lithosphere.

Answer: <https://biology-forums.com/index.php?topic=417576>

Question 630

Streams that flow through channels cut in solid rock are called _____ streams.

- A) local
- B) alluvial
- C) bedrock
- D) channel

Answer: <https://biology-forums.com/index.php?topic=416961>

Question 631

Which is not a factor that contributes directly to the angle of repose of a sand castle?

- A) shape of particles
- B) cohesion
- C) size of particles
- D) friction

Answer: <https://biology-forums.com/index.php?topic=418190>

Question 632

Which action would geologists take in order to determine the Richter magnitude of an earthquake?

- A) assess financial costs of rebuilding roads, buildings, and public areas in the quake zone
- B) take core samples at several spots and from different distances from the epicenter
- C) analyze seismic instrument readouts
- D) interview people who experienced the quake

Answer: <https://biology-forums.com/index.php?topic=417436>

Question 633

A surface rock that formed from the precipitation of minerals would be classified as a _____ rock.

- A) plutonic igneous
- B) volcanic igneous
- C) chemical sedimentary
- D) clastic sedimentary

Answer: <https://biology-forums.com/index.php?topic=416867>

Question 634

Which of the following is not a valid reason for studying Earth?

- A) Earth is the planet upon which you live.
- B) Earth is a source of raw materials for metals, plastics, building materials, and precious gemstones.
- C) Earth is an active planet that experiences cataclysmic earthquakes, volcanic eruptions, floods, landslides, and other processes that constantly reshape the surface and sometimes threaten human lives and property.
- D) All Earth processes can only be explained by supernatural forces.

Answer: <https://biology-forums.com/index.php?topic=416782>

Question 635

The cooling of rising air is due to a decrease in

- A) volume.
- B) motion.
- C) temperature.
- D) pressure.

Answer: <https://biology-forums.com/index.php?topic=417985>

Question 636

Sediment carried away from a glacier by meltwater streams is called

- A) outwash.
- B) unsorted sediment.
- C) till.
- D) erratics.

Answer: <https://biology-forums.com/index.php?topic=417369>

Question 637

True or False: Pluto should not be considered a major planet and is better classified as a Kuiper belt object.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418303>

Question 638

A model for Earth elevation based only on oceanic crust being denser than continental crust results in

- A) oceanic crust being too thick.
- B) reasonable estimates of crustal thickness and crustal densities.
- C) continental and oceanic crust being too thick.
- D) continental crust being too thick.

Answer: <https://biology-forums.com/index.php?topic=417966>

Question 639

Diamond-bearing rocks that get erupted from volcanoes have traveled approximately _____ to Earth's surface.

- A) 1.5km
- B) 15 km
- C) 150 km
- D) 1500 km

Answer: <https://biology-forums.com/index.php?topic=418104>

Question 640

A clastic sedimentary rock composed of rounded gravel would be called a(n)

- A) conglomerate.
- B) mudstone.
- C) arkose.
- D) sandstone.

Answer: <https://biology-forums.com/index.php?topic=417398>

Question 641

As the seafloor ages, ocean depth

- A) is not affected.
- B) increases.
- C) varies.
- D) decreases.

Answer: <https://biology-forums.com/index.php?topic=417859>

Question 642

What happens to the volume of water flowing in the aquifer per unit time if hydraulic conductivity decreases?

Answer: <https://biology-forums.com/index.php?topic=417294>

Question 643

Which of the following types of flow moves the fastest?

- A) creep
- B) slump
- C) slide
- D) avalanche

Answer: <https://biology-forums.com/index.php?topic=418271>

Question 644

Why do some communities inject treated wastewater into aquifers?

- A) to recharge it artificially, since nature cannot keep up with urban demands
- B) for storage in a place that is not subject to as much evaporation as a reservoir
- C) as a convenient place to dispose of water that is not suitable for other uses
- D) to prevent flooding due to too much wastewater above the surface

Answer: <https://biology-forums.com/index.php?topic=417096>

Question 645

Extrusive is to volcanic as _____ is to plutonic.

- A) igneous
- B) clastic
- C) intrusive
- D) chemical

Answer: <https://biology-forums.com/index.php?topic=416894>

Question 646

Which factor is not included in Glatzmaier and Roberts' model?

- A) electricity and magnetism
- B) convective motion
- C) Earth's rotation
- D) compositional convection

Answer: <https://biology-forums.com/index.php?topic=417209>

Question 647

Typical ocean waves have wave heights of _____ meters.

- A) 50 to 100
- B) 0.5 to 20
- C) 20 to 50
- D) 0.01 to 0.5

Answer: <https://biology-forums.com/index.php?topic=417729>

Question 648

At what point does the Wadati-Benioff zone have to end?

- A) when it reaches a zone that is too hot
- B) when it reaches Earth's surface
- C) when it runs up against another plate
- D) when it runs into the deep-sea trench

Answer: <https://biology-forums.com/index.php?topic=417610>

Question 649

True or False: The composition of the magma determines the minerals that form in an igneous rock.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417132>

Question 650

Which of the following is not a common environmental effect of volcanic eruptions?

- A) lava flows
- B) earthquakes
- C) heatwaves
- D) emission of poisonous gases

Answer: <https://biology-forums.com/index.php?topic=418329>

Question 651

Why is the decay of potassium to argon used instead of the decay of potassium to calcium?

- A) Calcium dissolves in water so cannot be measured accurately.
- B) Calcium is prevalent in too many rocks.
- C) Argon stays in the rock for a longer period of time so it is a more reliable measurement.
- D) Argon is a reactive element and will only be present due to the decay of the potassium isotope.

Answer: <https://biology-forums.com/index.php?topic=417873>

Question 652

Which assumption did the Cape Cod water flow velocity experiment rely upon?

- A) Water flows to rock with more open pores.
- B) Water flows to areas of decreased pressure.
- C) Water flows to areas of decreased elevation.
- D) Water flows toward the discharge site.

Answer: <https://biology-forums.com/index.php?topic=417136>

Question 653

Evaluate the following statement.

"Tectonic processes help metamorphism by burying rocks."

- A) This statement is true. Tectonic processes can push rocks deeper into Earth.
- B) This statement is false. Tectonic processes lift rocks up to the surface, where they are worn away by weathering.
- C) This statement is true. Tectonic processes cause lava flows to bury large slabs of rock.
- D) This statement is false. Metamorphism only occurs under very thick layers of deposited sediment.

Answer: <https://biology-forums.com/index.php?topic=417641>

Question 654

The following items describe the conditions relating to a slump except item _____. 1. curving, scallop-shaped rupture scarp 2. broken pavement and tilted trees 3. vertical sedimentary rock layers bent downslope 4. occurring in regolith or weak rock

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

Answer: <https://biology-forums.com/index.php?topic=418170>

Question 655

True or False: each mineral has a definitive, but possibly slightly varying, chemical composition.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=416978>

Question 656

What metal is obtained from the mineral sphalerite?

- A) zinc
- B) tin
- C) mercury
- D) gold

Answer: <https://biology-forums.com/index.php?topic=416918>

Question 657

Which types of rocks commonly host important metal ore deposits?

- A) contact metamorphic
- B) igneous
- C) hydrothermal metamorphic
- D) regional metamorphic

Answer: <https://biology-forums.com/index.php?topic=416963>

Question 658

True or False: Strike-slip faults include right-lateral, left-lateral and thrust faults.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417497>

Question 659

Which of the following is not a parent material for the formation of clay?

- A) iron-bearing silicates
- B) magnesium-bearing silicates
- C) feldspar
- D) schist

Answer: <https://biology-forums.com/index.php?topic=418073>

Question 660

How might have early Earth lost much of its water?

- A) It was blasted off the Earth and vaporized as a result of enormous collisions.
- B) It dissolved into the core rocks.
- C) It vaporized through natural water cycle processes and escaped Earth's gravity, which was less than it is now.
- D) It was blasted off the Earth by volcanic eruptions.

Answer: <https://biology-forums.com/index.php?topic=418272>

Question 661

Which of the following is not a natural process that could be involved in the creation of desert pavement?

- A) dissolving and precipitation of sand minerals

- B) shrinking and swelling of silica minerals
- C) rain washing fine dust downward
- D) wind blowing away sand, silt, and dust

Answer: <https://biology-forums.com/index.php?topic=417923>

Question 662

_____ soils are common in the southeastern part of the United States.

- A) Wetland
- B) Rainforest
- C) Forest
- D) Grassland
- E) Desert

Answer: <https://biology-forums.com/index.php?topic=418130>

Question 663

Parcels of rising mantle are always _____ than adjacent rocks, and parcels of sinking upper mantle are always _____ than adjacent rocks.

- A) more dense; less dense
- B) warmer; cooler
- C) more basaltic; less basaltic
- D) heavier; lighter

Answer: <https://biology-forums.com/index.php?topic=417140>

Question 664

A rock that formed from particles of preexisting rocks liberated by physical weathering or formed during chemical weathering would be classified as a _____ rock.

- A) regional
- B) biogenic
- C) clastic
- D) chemical

Answer: <https://biology-forums.com/index.php?topic=416855>

Question 665

Regions where seismometers do not record P and/or S waves are called

- A) aseismic regions.
- B) shadow zones.
- C) nonseismic zones.
- D) seismic gaps.

Answer: <https://biology-forums.com/index.php?topic=418173>

Question 666

A clastic sedimentary rock composed of sand (90%) and mud (10%) would be called a

- A) siltstone.
- B) sandy shale.
- C) sandy mudstone.
- D) muddy sandstone.

Answer: <https://biology-forums.com/index.php?topic=417425>

Question 667

Which of the following is not a common cause and effect related to dust?

- A) Swirling dust reduces visibility and causes highway accidents.
- B) Vegetated land is changed to barren desert by windstorms.
- C) Cities experience hazy skies, even thousands of kilometers from dust storms.
- D) Topsoil loses its nutrients and agriculture becomes less productive in a given area.

Answer: <https://biology-forums.com/index.php?topic=417807>

Question 668

What evidence made scientists hypothesize that dust contained calcium?

- A) crystals found high on ridges
- B) limestone formations on prairies
- C) dissolved calcite in the ground
- D) the color of dust on windswept plateaus

Answer: <https://biology-forums.com/index.php?topic=418093>

Question 669

Which option describes the process of exfoliation?

- A) Stresses in the crust from plate tectonics cause fractures in many directions.
- B) Fractures and cracks are formed when the rock forms by the cooling of lava.
- C) Cracks open up parallel to the ground when surface rock expands slightly outward.
- D) Bedding in sedimentary rocks causes planar breaks in the rock.

Answer: <https://biology-forums.com/index.php?topic=417335>

Question 670

How does loess typically change the shape of a landscape?

- A) It piles up in a way that creates hills and valleys.
- B) It piles up and sediments into mesas.
- C) It does not change the shape of the landscape.
- D) It blankets the landscape, then is easily eroded into deep canyons.

Answer: <https://biology-forums.com/index.php?topic=417920>

Question 671

Earth's _____ consists predominantly of metal.

- A) continental crust
- B) core
- C) oceanic crust
- D) mantle

Answer: <https://biology-forums.com/index.php?topic=418354>

Question 672

Which of the following scenarios would be most susceptible to mass movements?

- A) Steep slope, underlain by sandstone and conglomerate
- B) Shallow slope, underlain by siltstone and mudstone
- C) Steep slope, underlain by siltstone and mudstone
- D) Shallow slope, underlain by sandstone and conglomerate

Answer: <https://biology-forums.com/index.php?topic=418300>

Question 673

What was the geology of the areas where cities located on the Great Lakes?

Answer: <https://biology-forums.com/index.php?topic=417799>

Question 674

Which type of stress always causes change in shape but not in volume?

- A) strain
- B) pressure
- C) normal stress
- D) shear stress

Answer: <https://biology-forums.com/index.php?topic=417645>

Question 675

Identify the two main components involved in chemical weathering.

- A) oxygen and water
- B) acid and water
- C) salt and water
- D) salt and acid

Answer: <https://biology-forums.com/index.php?topic=417340>

Question 676

According to the rock cycle, the process by which sedimentary rock becomes metamorphic rock is called

- A) melting.
- B) metamorphism.
- C) lithification.
- D) precipitation.

Answer: <https://biology-forums.com/index.php?topic=416998>

Question 677

What metal has many industrial uses because it can be easily cast, molded, and shaped, as well as be used for its chemical properties in glazes, batteries, and gasoline?

- A) lead
- B) gold
- C) platinum
- D) copper

Answer: <https://biology-forums.com/index.php?topic=416923>

Question 678

Evaluate this statement. "Glacial meltwater is milky white due to air bubbles trapped in the water."

- A) This statement is false. The color is due to glacial flour in the water.
- B) This statement is partially true, because the milky-white color is also due to ice crystals.
- C) This statement is false. The color is due to ice crystals.
- D) This statement is true.

Answer: <https://biology-forums.com/index.php?topic=417366>

Question 679

Choose the ore that is not an oxide.

- A) rutile
- B) sphalerite
- C) ilmenite
- D) corundum

Answer: <https://biology-forums.com/index.php?topic=416926>

Question 680

What evidence suggests that now-extinct radioactive isotopes existed previously on Earth?

- A) these isotopes exist elsewhere
- B) the cooling of Earth since then
- C) the products of the reaction are left behind
- D) the heat they left behind

Answer: <https://biology-forums.com/index.php?topic=418239>

Question 681

Weathering is most intense near the surface because of

- A) moisture availability and natural acidity.
- B) moisture availability and exposure to air.
- C) exposure to air and sunlight.
- D) moisture availability and exposure to sunlight.

Answer: <https://biology-forums.com/index.php?topic=418059>

Question 682

Ground water motion is due to potential- and pressure-energy effects. Potential energy is _____ at the surface than at lower elevations below ground. Pressure energy _____ with increasing depth.

- A) lesser, increases
- B) lesser, decreases
- C) greater, increases
- D) greater, decreases

Answer: <https://biology-forums.com/index.php?topic=417255>

Question 683

The motion of lithospheric plates on earth's surface is caused by the

- A) refraction of heat.
- B) convection of heat.
- C) conduction of heat.
- D) radiation of heat.

Answer: <https://biology-forums.com/index.php?topic=416804>

Question 684

Why does graphite feel slippery to the touch?

- A) The carbon atoms in graphite are spaced closely together.
- B) Graphite is soft and easily crushes into powder.
- C) Graphite atoms have many free electrons.
- D) Graphite absorbs water from the air so the surface always feels slippery.

Answer: <https://biology-forums.com/index.php?topic=416875>

Question 685

What scientific mistake do late-delivery hypothesis scientists claim that water-accretion hypothesis scientists made?

- A) biased observation methods
- B) basing research on a faulty hypothesis
- C) theory was not based on observations
- D) not enough data

Answer: <https://biology-forums.com/index.php?topic=418267>

Question 686

All of these factors must decrease in order for a stream to deposit sediment except

- A) shear stress.
- B) velocity.
- C) volume.
- D) power.

Answer: <https://biology-forums.com/index.php?topic=416853>

Question 687

Which of the following is not a difference between the Mississippi River Basin and the Great Basin?

- A) One is much larger than the other.
- B) One empties into the ocean and the other does not.
- C) One experiences evaporation and the other does not.
- D) One has more streams than the other.

Answer: <https://biology-forums.com/index.php?topic=416817>

Question 688

These minerals have one direction of cleavage that produces thin sheets.

- A) garnets
- B) olivines
- C) micas
- D) amphiboles

Answer: <https://biology-forums.com/index.php?topic=417046>

Question 689

When sea levels rise,

- A) base levels of river profiles where they reach the sea fall.
- B) fresh water on Earth has flowed into the oceans, so streams are generally less full.
- C) base levels of river profiles where they reach the sea rise.
- D) fresh water on Earth also increases and streams are generally more full.

Answer: <https://biology-forums.com/index.php?topic=416934>

Question 690

How did debris from the eruption of Mount Pinatubo in the Philippines destroy villages up to several kilometers away?

- A) The debris landed on mountain slopes and was later moved by landslides.
- B) The eruption caused the debris to cascade through the air and travel as far as the villages.
- C) The debris landed on steep hillsides and was later moved by lahars.
- D) The debris landed in a river valley and was washed down into the villages.

Answer: <https://biology-forums.com/index.php?topic=418210>

Question 691

True or False: A solar wind is not moving air but is fast-moving protons and electrons blasting outward from a star.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418299>

Question 692

A decrease in stream power can cause all of the following except

- A) migrating shorelines.
- B) an alluvial fan.
- C) channel deepening.
- D) a delta.

Answer: <https://biology-forums.com/index.php?topic=416856>

Question 693

Which of the following is not likely to have an effect on ocean depth?

- A) plate tectonics
- B) age of sea floor
- C) lava flow at ground faults
- D) lava flow at mid-ocean ridges

Answer: <https://biology-forums.com/index.php?topic=417865>

Question 694

The _____ has an average composition similar to peridotite.

- A) crust (oceanic)
- B) core (inner)
- C) crust (continental)
- D) core (outer)
- E) mantle

Answer: <https://biology-forums.com/index.php?topic=418169>

Question 695

Cracks where very little or no displacement of rock has occurred are called

- A) sills.
- B) dikes.
- C) faults.
- D) joints.

Answer: <https://biology-forums.com/index.php?topic=417469>

Question 696

How is the velocity of underground water measured?

- A) with a hydrometer
- B) by interpretation of seismic readouts
- C) by injecting and tracking a tracer chemical at different points
- D) by tracking the progress of a radioactive tracer through the ground

Answer: <https://biology-forums.com/index.php?topic=417133>

Question 697

When did Pangea begin to split apart?

- A) 60 million years ago
- B) 180 million years ago
- C) 240 million years ago
- D) 360 million years ago

Answer: <https://biology-forums.com/index.php?topic=417674>

Question 698

How much of the water on Earth do scientists think was delivered by comets?

- A) all of it
- B) none
- C) a minor amount
- D) a major amount

Answer: <https://biology-forums.com/index.php?topic=418278>

Question 699

A smooth concave-up profile suggests that a river

- A) is flowing quickly.
- B) has many meanders due to changes in bedrock type.
- C) is flowing slowly.
- D) is well adjusted to its sediment load and discharge.

Answer: <https://biology-forums.com/index.php?topic=416874>

Question 700

Choose the option that puts the waves in order from slowest to quickest.

- A) surface waves, S-waves, P-waves
- B) surface waves, P-waves, S-waves
- C) P-waves, S-waves, surface waves
- D) S-waves, P-waves, surface waves

Answer: <https://biology-forums.com/index.php?topic=418050>

Question 701

Deep Springs Lake in California does not have an outlet because

- A) of the rock type that forms the base of the lake.
- B) evaporation keeps the lake from filling up.
- C) of surrounding topography.
- D) rain does not fall on the lake, so it does not fill up.

Answer: <https://biology-forums.com/index.php?topic=416937>

Question 702

Deserts are

- A) places that are both very hot and very dry due to little rain.
- B) regions that receive more than 85% daily sunshine.
- C) any ecosystem underlain by 2 meters or more of sand.
- D) regions that receive less than 25 centimeters of rain.

Answer: <https://biology-forums.com/index.php?topic=417840>

Question 703

Why would we put a clay seal at the surface?

Answer: <https://biology-forums.com/index.php?topic=417286>

Question 704

Areas of oceanic crust tend to stand at _____ than do areas of continental crust.

- A) lower elevations below the mantle
- B) higher elevations above the mantle
- C) higher elevations below the mantle
- D) lower elevations above the mantle

Answer: <https://biology-forums.com/index.php?topic=417963>

Question 705

Which part of the plate theory from the 1960s was disproved by GPS technology?

- A) relative plate motion
- B) tectonic action
- C) plate velocity
- D) nature of the plates

Answer: <https://biology-forums.com/index.php?topic=417654>

Question 706

A shale metamorphosed to medium metamorphic grade would become a(n)

- A) amphibolite.
- B) schist.
- C) gneiss.
- D) slate.

Answer: <https://biology-forums.com/index.php?topic=417608>

Question 707

What conditions during the formation of coal may increase its quality for industrial use?

- A) The swamp that formed the coal floods.
- B) The coal is formed of mostly green plants and contains very few woody trees.
- C) Clay and silt wash periodically through the swamp that formed the coal.
- D) Very high heat and pressure are applied.

Answer: <https://biology-forums.com/index.php?topic=417501>

Question 708

This mineral exhibits strong magnetism.

- A) graphite
- B) galena
- C) pyrite
- D) magnetite

Answer: <https://biology-forums.com/index.php?topic=417026>

Question 709

Earthquakes may occur along

- A) plate boundaries.
- B) transform boundaries.
- C) divergent boundaries.
- D) convergent boundaries.

Answer: <https://biology-forums.com/index.php?topic=418345>

Question 710

Which type of convergent plate boundary results in a chain of submarine volcanoes?

- A) continental-oceanic
- B) oceanic-oceanic
- C) ridge-hot spot
- D) continental-continental

Answer: <https://biology-forums.com/index.php?topic=417748>

Question 711

What mineral is found in pearls?

- A) aragonite
- B) calcite
- C) dolomite
- D) quartz

Answer: <https://biology-forums.com/index.php?topic=416863>

Question 712

Which of the following is explained by geologic processes happening below the lithosphere?

- A) a divergent boundary
- B) a transform boundary
- C) a convergent boundary
- D) a hot spot volcano

Answer: <https://biology-forums.com/index.php?topic=416802>

Question 713

True or False: All clay-size grains in a clastic sedimentary rock are clay minerals.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417431>

Question 714

Chemical sedimentary rocks consist of all of the following types of minerals except

- A) silicates.
- B) salts.
- C) carbonates.
- D) sulfates.

Answer: <https://biology-forums.com/index.php?topic=416882>

Question 715

Which mineral does not share the chemical composition, Al_2SiO_5 ?

- A) andalusite
- B) asbestos
- C) sillimanite
- D) kyanite

Answer: <https://biology-forums.com/index.php?topic=417665>

Question 716

According to radioactive dating, which celestial object is the oldest?

- A) the Moon
- B) Earth
- C) Jupiter
- D) meteorites

Answer: <https://biology-forums.com/index.php?topic=417882>

Question 717

The most abundant acid in chemical weathering is _____ acid

- A) hydrochloric
- B) acetic
- C) sulfuric
- D) carbonic

Answer: <https://biology-forums.com/index.php?topic=417317>

Question 718

True or False: Earth materials such as mud, sand, gravel or rock respond differently to passing seismic waves.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417507>

Question 719

Which ore mineral is mined to provide a metal for putting a protective coating on steel and iron to prevent corrosion?

- A) galena
- B) chalcopyrite

- C) hematite
- D) sphalerite

Answer: <https://biology-forums.com/index.php?topic=417011>

Question 720

When waves continue into progressively shallower water all of the following occur except

- A) crests become narrower than troughs.
- B) wavelength decreases.
- C) the forward wave velocity decreases.
- D) wave height decreases.

Answer: <https://biology-forums.com/index.php?topic=417746>

Question 721

The texture of an igneous rock consisting of very small crystals is called

- A) glassy.
- B) phaneritic.
- C) aphanitic.
- D) porphyritic.

Answer: <https://biology-forums.com/index.php?topic=417199>

Question 722

A layer of impermeable material, such as clay, that prevents mixing of the ground water in the aquifers above and below it is called a _____ layer.

- A) confining
- B) blocking
- C) constraining
- D) restraining

Answer: <https://biology-forums.com/index.php?topic=417258>

Question 723

A scientist that studies earthquake records is called a

- A) seismometer.
- B) seismogram.
- C) seismic wave.
- D) seismologist.

Answer: <https://biology-forums.com/index.php?topic=418120>

Question 724

A clastic sedimentary rock composed of sand (85%) and silt (15%) would be called a

- A) sandstone.
- B) siltstone.
- C) silty sandstone.
- D) sandy siltstone.

Answer: <https://biology-forums.com/index.php?topic=417416>

Question 725

Igneous rocks that form below earth's surface are called _____ rocks

- A) non-eruptive
- B) volcanic
- C) plutonic
- D) deep

Answer: <https://biology-forums.com/index.php?topic=417135>

Question 726

Geologists best estimate the shear stress applied to erosion by wind by measuring

- A) the depth of the air mass.
- B) the velocity of the wind.
- C) the density of the air mass.

D) the average particle size carried by the wind.

Answer: <https://biology-forums.com/index.php?topic=417875>

Question 727

Which of the following features is evidence of ground-water dissolution?

- A) sinkholes
- B) yardangs
- C) spits
- D) levees

Answer: <https://biology-forums.com/index.php?topic=417272>

Question 728

Which is not a characteristic of a tsunami?

- A) Tsunami have extremely tall wave heights.
- B) The water floods far onto land for an extended period of time.
- C) Tsunami develop suddenly and without warning.
- D) One giant wave is followed almost immediately by an even larger one.

Answer: <https://biology-forums.com/index.php?topic=417604>

Question 729

Which type of energy is least involved with waves crashing on a beach and retreating back to sea?

- A) sound energy
- B) frictional energy
- C) mechanical energy
- D) gravitational energy

Answer: <https://biology-forums.com/index.php?topic=417597>

Question 730

Magma consists of _____ of silicon, aluminum, magnesium, iron, calcium, sodium and potassium.

- A) sulfides
- B) halides
- C) oxides
- D) carbonates

Answer: <https://biology-forums.com/index.php?topic=417141>

Question 731

The direction of moving water and air currents that transport sediment can be determined by the study of

- A) mudcracks.
- B) cross-beds.
- C) bedding.
- D) graded beds.

Answer: <https://biology-forums.com/index.php?topic=417512>

Question 732

What percent of a comet is water?

- A) ten percent
- B) thirty percent
- C) fifty percent
- D) eighty percent

Answer: <https://biology-forums.com/index.php?topic=418276>

Question 733

What region of the United States has the highest summer dust concentrations?

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

Answer: <https://biology-forums.com/index.php?topic=417934>

Question 734

A rock that is 300 million years old comes from the _____ Era.

- A) Mesozoic
- B) Permian
- C) Cenozoic
- D) Paleozoic

Answer: <https://biology-forums.com/index.php?topic=417984>

Question 735

What is the approximate depth of the liquid outer core, given the inferences of depth of the core-mantle boundary and the inner-outer core boundary?

- A) 2255 km
- B) 6371 km
- C) 2900 km
- D) 5155 km

Answer: <https://biology-forums.com/index.php?topic=418064>

Question 736

Which feature is most likely to be exposed only at low tide?

- A) a sea cave
- B) a sea stack
- C) a wave-cut platform
- D) a sea arch

Answer: <https://biology-forums.com/index.php?topic=417620>

Question 737

Put the following steps in the correct sequence according to how one would take a survey reading. 1. The angle between the line sighted to the star and a line drawn directly toward Earth's center permits calculation of latitude. 2. Surveyors sight a telescope on the North Star, which is almost directly above Earth's rotation axis. 3. A table is set up with its level surface perpendicular to a line directed towards Earth's center.

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

Answer: <https://biology-forums.com/index.php?topic=417815>

Question 738

What is the primary force that drives plate motion?

- A) slab pull
- B) mid-ocean ridge igneous push
- C) superplume push
- D) gravity

Answer: <https://biology-forums.com/index.php?topic=417660>

Question 739

What type would not be used as starting information when developing a hazard map?

- A) aerial photographs
- B) slope map
- C) topographic elevations map
- D) geologic map

Answer: <https://biology-forums.com/index.php?topic=418232>

Question 740

An explanation of a problem that accounts for existing data and predicts additional phenomena that should exist is called a

- A) theory.
- B) hypothesis.
- C) law.

D) principle.

Answer: <https://biology-forums.com/index.php?topic=416787>

Question 741

Vulcan was the Roman god of

- A) the seas.
- B) fire.
- C) earth.
- D) the heavens.

Answer: <https://biology-forums.com/index.php?topic=416966>

Question 742

According to the rock cycle, the process by which sediment becomes sedimentary rock is called

- A) metamorphism.
- B) crystallization.
- C) melting.
- D) lithification.

Answer: <https://biology-forums.com/index.php?topic=417001>

Question 743

Judge the following sentence according to the criteria given below. Plate tectonic works because lithosphere is less dense than asthenosphere at divergent boundaries and more dense than asthenosphere at convergent boundaries.

- A) The assertion and the reason are both correct, but the reason is invalid.
- B) Both the assertion and the reason are incorrect.
- C) The assertion and the reason are both correct, and the reason is valid.
- D) The assertion is incorrect but the reason is correct.
- E) The assertion is correct but the reason is incorrect.

Answer: <https://biology-forums.com/index.php?topic=417712>

Question 744

Which of the following is true about quartz?

- A) It forms eight-sided crystals.
- B) It has two directions of cleavage.
- C) It fractures in unpredictable patterns.
- D) It has three directions of cleavage.

Answer: <https://biology-forums.com/index.php?topic=416807>

Question 745

Which of the following is not a factor used to calculate the seismic moment?

- A) rock strength
- B) distance the rocks moved on either side of the fault
- C) wave height
- D) measurements of the area of the fault plane that ruptured

Answer: <https://biology-forums.com/index.php?topic=417418>

Question 746

Determine if cubic zirconia meets the definition of a mineral. If the substance doesn't meet the definition, specify which part of the definition doesn't apply.

- A) Not a mineral because it's not a naturally occurring solid
- B) Not a mineral because it's organic
- C) Not a mineral because it's not ordered atomic structure
- D) It's a mineral because it meets all the required characteristics
- E) Not a mineral because it doesn't possess a definite or slightly variable chemical composition

Answer: <https://biology-forums.com/index.php?topic=416987>

Question 747

Which Latin word or phrase is the E horizon named after?

- A) rocky
- B) rich
- C) raised up
- D) washed out

Answer: <https://biology-forums.com/index.php?topic=418049>

Question 748

Which mineral property depends on the atomic weights of atoms and how the atoms are arranged in the crystal structure?

- A) color
- B) crystal faces
- C) specific gravity
- D) luster

Answer: <https://biology-forums.com/index.php?topic=416972>

Question 749

The permeability of an igneous rock can be increased by

- A) fracturing.
- B) cementation.
- C) metamorphism.
- D) sorting.

Answer: <https://biology-forums.com/index.php?topic=417227>

Question 750

Measurements of corals in the Caribbean to determine sea level rise and fall are hampered by

- A) difficulties in finding all remaining corals buried in sediment.
- B) difficulties with carbon-dating methods due to the way that corals incorporate carbon into their shells.
- C) a lack of knowledge about how much tectonic uplift and subsidence have occurred.
- D) changes in the sea due to local weather conditions.

Answer: <https://biology-forums.com/index.php?topic=417684>

Question 751

Rocks rich in feldspar and silica are called

- A) dacitic.
- B) quartzic.
- C) felsic.
- D) mafic.

Answer: <https://biology-forums.com/index.php?topic=417177>

Question 752

Rocks originating from eruption of molten material at the surface are called _____ rocks.

- A) lava
- B) eruptive
- C) volcanic
- D) pyroclastic

Answer: <https://biology-forums.com/index.php?topic=417089>

Question 753

The mineral property measured by dividing the mineral's weight in air by the weight of an equivalent volume of water at 4 degrees Celsius is called

- A) cleavage.
- B) specific gravity.
- C) density.
- D) luster.

Answer: <https://biology-forums.com/index.php?topic=416947>

Question 754

Which mineral cements together loose grains of sandstone?

- A) quartz

- B) mica
- C) coal
- D) calcite

Answer: <https://biology-forums.com/index.php?topic=416911>

Question 755

What prior scientific view was supported by Neptunist theory?

- A) Earth originated as a remnant of a star explosion.
- B) Earth originated as solids dissolved in a ball of water.
- C) Earth began as a ball of hot gases that cooled into water and solids.
- D) Earth originated as a vast blob of material uniformly distributed in water.

Answer: <https://biology-forums.com/index.php?topic=416974>

Question 756

Choose the option that correctly matches all rock types with their source environments.

- A) limestone: river bottoms; conglomerate: sea floor; evaporites: ocean beaches
- B) limestone: sea floor; evaporites: lake shores; conglomerates: stream deltas
- C) conglomerate: river bottoms; limestone: lake bottoms; mudstone: lake bottoms
- D) conglomerate: lake bottoms; limestone: sea floor; evaporites: stream deltas

Answer: <https://biology-forums.com/index.php?topic=417506>

Question 757

Which state's rocks have almost all been affected by the dissolving effects of water?

- A) North Carolina
- B) Idaho
- C) Florida
- D) Maine

Answer: <https://biology-forums.com/index.php?topic=417201>

Question 758

Which of the following is not an effect of tension?

- A) thrust faults
- B) normal faults
- C) shrinking of mountain roots
- D) decrease in elevation

Answer: <https://biology-forums.com/index.php?topic=417836>

Question 759

When does a potassium-argon dating time scale occasionally reset?

- A) during heating
- B) during erosion
- C) during sedimentation
- D) during an earthquake

Answer: <https://biology-forums.com/index.php?topic=417867>

Question 760

The correct order of the outer planets is

- A) (closest to sun) Jupiter; Uranus; Saturn; Neptune; Pluto (farthest to sun)
- B) (closest to sun) Jupiter; Saturn; Uranus; Neptune; Pluto (farthest to sun)
- C) (closest to sun) Pluto; Neptune; Uranus; Saturn; Jupiter (farthest to sun)
- D) (closest to sun) Jupiter; Uranus; Saturn; Pluto; Neptune (farthest to sun)

Answer: <https://biology-forums.com/index.php?topic=418284>

Question 761

In the summer, dust in the Southeast is red. This is due to

- A) organic content.
- B) aluminum.

- C) clay minerals.
- D) iron oxide minerals.

Answer: <https://biology-forums.com/index.php?topic=417930>

Question 762

Which process forms pahoehoe lava formations?

- A) Thin lava runs quickly over a large area.
- B) Lava continues flowing after a crust forms.
- C) Very thick lava squeezes out in large mounds.
- D) Lava stops flowing while it is still hot and forms ropes.

Answer: <https://biology-forums.com/index.php?topic=417246>

Question 763

Why would we want to be sure to drill into an aquifer to develop a water well?

Answer: <https://biology-forums.com/index.php?topic=417279>

Question 764

What evidence might suggest a time interval between two rock layers?

- A) a metamorphosed band in the bottom layer
- B) an irregular boundary between the two layers
- C) a metamorphosed band in the top layer
- D) a coal layer between the two layers

Answer: <https://biology-forums.com/index.php?topic=417804>

Question 765

What is a gully?

- A) a small channel in soil
- B) a scooped-out valley in soil
- C) a ripple in sandy soil
- D) a small stream

Answer: <https://biology-forums.com/index.php?topic=418107>

Question 766

The effect of climate on sediment load is a result on the interaction of all of the following factors except

- A) the amount of sediment produced by weathering.
- B) the amount of precipitation.
- C) the steepness of slopes.
- D) the vegetative cover.

Answer: <https://biology-forums.com/index.php?topic=416958>

Question 767

During what period did the seas evolve?

- A) Precambrian
- B) Cenozoic
- C) Paleozoic
- D) Mesozoic

Answer: <https://biology-forums.com/index.php?topic=417853>

Question 768

Identify the following igneous rock based on its texture and mineral content, a coarse-grained rock with 31 % Quartz, 25 % Potassium Feldspar, 25 % Sodium-rich Plagioclase Feldspar, 3 % Biotite, 6 % Muscovite, 11 % Amphibole, 0 % Pyroxene, 0 % Olivine?

- A) peridotite
- B) tonalite
- C) diorite
- D) gabbro
- E) granite

Answer: <https://biology-forums.com/index.php?topic=417191>

Question 769

Streams transport ions in solution as

- A) bed load.
- B) drainage.
- C) sediment load.
- D) dissolved load.

Answer: <https://biology-forums.com/index.php?topic=416949>

Question 770

A considerable variation in seismic wave velocity in the crust occurs because

- A) waves move faster the deeper they travel.
- B) oceans, caves, karst regions, and underground waterways inhibit wave movement.
- C) waves move slower the deeper they travel.
- D) there are different types of rocks in the crust.

Answer: <https://biology-forums.com/index.php?topic=418074>

Question 771

How many ice ages have there been in the past 3.8 Ba?

Answer: <https://biology-forums.com/index.php?topic=417567>

Question 772

The lithosphere

- A) is the thinner part of the crust found under the oceans.
- B) is made of the crust and the uppermost mantle.
- C) is the rocky part of the crust found under the mountains.
- D) is made of the mantle and the asthenosphere.

Answer: <https://biology-forums.com/index.php?topic=418322>

Question 773

Which factor is not important to the generation of magnetic current in Earth's core?

- A) motion caused by convection
- B) great heat in the core
- C) rotation of Earth
- D) electrical conductivity of iron

Answer: <https://biology-forums.com/index.php?topic=417192>

Question 774

A student comments, "The shadow zone is an area where waves cannot travel because it is a thick layer of liquid at the boundary of the mantle and the outer core." Evaluate this statement.

- A) P-waves refract at the shadow zone. S-waves are stopped.
- B) Actually, it was the boundary of the inner core that was discovered with this method.
- C) It is correct that waves cannot travel in liquid.
- D) The shadow zone refers to the whole outer core, not just the boundary.

Answer: <https://biology-forums.com/index.php?topic=418062>

Question 775

Dust from Africa is most commonly found in the American

- A) southwest.
- B) southeast.
- C) northwest.
- D) northeast.

Answer: <https://biology-forums.com/index.php?topic=417943>

Question 776

The mineral gypsum is used

- A) as a gentle abrasive in toothpaste.

- B) for the white color in paint.
- C) for the formulation of concrete.
- D) for the production of plaster.

Answer: <https://biology-forums.com/index.php?topic=416999>

Question 777

True or False: Only sedimentary rocks can be assigned to geologic periods because they are the only rocks that contain fossils.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417906>

Question 778

If a person found a fossil and presented it to William Smith, what would the scientist be able to conclude about that fossil?

- A) where the fossil was found and what type of animal it was
- B) which type of animal it was and where it had lived
- C) which layer the fossil had come from and where that layer was exposed
- D) when the animal had lived and which layer it had come from

Answer: <https://biology-forums.com/index.php?topic=417789>

Question 779

What did William Smith correlate while researching coal mines in Britain?

- A) composition of coal seams in different mines
- B) types of rock layers in different mines
- C) fossils in different layers in the same mine
- D) fossils in the same layers in different mines

Answer: <https://biology-forums.com/index.php?topic=417781>

Question 780

An event which may have caused the oceans to become shallower was

- A) the rifting apart of Pangea in the Mesozoic.
- B) the repeated volcanic eruptions of the Cenozoic.
- C) the glaciation of the Mesozoic.
- D) the earthquakes of the Paleozoic.

Answer: <https://biology-forums.com/index.php?topic=417862>

Question 781

Which of the following is not true of hard water?

- A) It decreases the effectiveness of soaps.
- B) It may clog pipes.
- C) It may add toxic metals to drinking water.
- D) It increases the permeability of rocks.

Answer: <https://biology-forums.com/index.php?topic=417164>

Question 782

Which of the following is not a normal consequence of the convergence of two continental crust plates?

- A) formation of thrust faults
- B) increasing thickness of crust
- C) formation of mountains
- D) subduction of the thicker plate

Answer: <https://biology-forums.com/index.php?topic=417617>

Question 783

Judge the following sentence according to the criteria given below. Continental crust dominated by rocks older than 1 billion years but no ocean crust older than 180 million years exists because oceanic crust is created at mid-ocean ridges.

- A) The assertion and the reason are both correct, but the reason is invalid.
- B) Both the assertion and the reason are incorrect.
- C) The assertion is correct but the reason is incorrect.

- D) The assertion is incorrect but the reason is correct.
E) The assertion and the reason are both correct, and the reason is valid.

Answer: <https://biology-forums.com/index.php?topic=417718>

Question 784

What creates perched ground water?

- A) tectonic plate movement
B) patches of low-permeability rock
C) folding action that results in higher pockets
D) excessive flooding

Answer: <https://biology-forums.com/index.php?topic=417090>

Question 785

Looking at Figure 14.11 in your textbook, the reason that the calcite accumulation is deeper on the central part of the test line from Wyoming to Wisconsin than it is on the western part is on account of

- A) rainfall.
B) elevation.
C) grass type.
D) organic matter content.

Answer: <https://biology-forums.com/index.php?topic=418081>

Question 786

Why is the inner core expanding?

- A) crystallization
B) condensation
C) melting
D) vaporization

Answer: <https://biology-forums.com/index.php?topic=418229>

Question 787

The presence of sea shells on beaches indicates that

- A) longshore currents carry sediment off the end of a headland.
B) waves erode sediment from the seafloor.
C) waves erode some beach sediment from shoreline rock and regolith.
D) streams deliver large volumes of sediment to the ocean.

Answer: <https://biology-forums.com/index.php?topic=417786>

Question 788

The erosion rate of river valleys is faster than the rate of _____.

- A) landslide movement
B) stream flow
C) ground breaking during an earthquake
D) sediment accumulation in the deep sea

Answer: <https://biology-forums.com/index.php?topic=418358>

Question 789

Which is not a characteristic of clay minerals that increases the likelihood of a slide?

- A) resistance to weathering
B) shrinking and swelling due to water and temperature
C) low friction when wet
D) low cohesive strength when wet

Answer: <https://biology-forums.com/index.php?topic=418234>

Question 790

What is the elevation of the lowest location in the United States?

- A) 0 m (equal to sea level)
B) 10 m above sea level

- C) 85 m below sea level
- D) 50 m below sea level

Answer: <https://biology-forums.com/index.php?topic=417791>

Question 791

A fossil fuel produced from the compacted remains of plants is

- A) oil.
- B) natural gas.
- C) coal.
- D) tar.

Answer: <https://biology-forums.com/index.php?topic=417365>

Question 792

_____ soils are common in the equatorial regions of South America and Africa.

- A) Rainforest
- B) Desert
- C) Forest
- D) Grassland
- E) Wetland

Answer: <https://biology-forums.com/index.php?topic=418128>

Question 793

Which fact is not important when using earthquake waves to study Earth's interior?

- A) Body waves penetrate deep into Earth.
- B) Wave velocity depends on the medium.
- C) Surface waves rarely penetrate deeply into the Earth.
- D) Seismic stations are placed in many locations on Earth's surface.

Answer: <https://biology-forums.com/index.php?topic=418052>

Question 794

Oceanic crust consists of all of the following except

- A) gabbro sills.
- B) basalt dikes.
- C) basalt lava flows.
- D) peridotite.

Answer: <https://biology-forums.com/index.php?topic=418139>

Question 795

True or False: Metamorphic rocks can form from the metamorphism of igneous, sedimentary and metamorphic rocks.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417550>

Question 796

Evaluate the following statement. "Simplified models such as Glatzmaier and Roberts' computer simulation cannot falsify a hypothesis."

- A) This statement is false because the failure of a correlation between the model and the hypothesis shows that there must be some error in the hypothesis.
- B) This statement is true because the failure of a correlation between the model and the hypothesis could be due to an error in the model, not the hypothesis.
- C) This statement is false because the failure of a correlation between the model and the hypothesis could be due to an error in the model, not the hypothesis.
- D) This statement is true because the failure of a correlation between the model and the hypothesis shows that there must be some error in the hypothesis.

Answer: <https://biology-forums.com/index.php?topic=417231>

Question 797

A P-wave travels 48 km in 8 seconds. What is its velocity?

- A) 6 km/s
- B) 40 km/s
- C) 56 km/s
- D) 384 km/s

Answer: <https://biology-forums.com/index.php?topic=418054>

Question 798

It is unusual for the wind to move grains larger than _____ in diameter.

- A) 0.5 cm
- B) 0.5 mm
- C) 5 mm
- D) 0.05 mm

Answer: <https://biology-forums.com/index.php?topic=418010>

Question 799

Which three products form when dolomite breaks down?

- A) calcite, periclase, and carbon dioxide
- B) calcite, periclase, and lime
- C) calcite, periclase, and oxygen
- D) calcium, pyroxene, and carbonate

Answer: <https://biology-forums.com/index.php?topic=417628>

Question 800

Which statement is true about the lithosphere?

- A) The lithosphere gets thicker as distance from the ridge increases, because it cools and the boundary between the lithosphere and asthenosphere occurs at greater depth.
- B) The lithosphere maintains its thickness as distance from the ridge increases, because the boundary between the lithosphere and asthenosphere remains at a constant temperature and depth.
- C) The lithosphere gets thinner as distance from the ridge increases, because decompression melting occurs with decreased pressure.
- D) The lithosphere is thickest at the mid-ocean ridges because of the quantity of magma that flows up to the surface.

Answer: <https://biology-forums.com/index.php?topic=417578>

Question 801

Explanations that cannot be observed or measured by scientific procedures are called _____ and are excluded from scientific theories.

- A) hypotheses
- B) principles
- C) unnatural laws
- D) supernatural

Answer: <https://biology-forums.com/index.php?topic=416791>

Question 802

Which of the following plates has the fastest average velocity?

- A) Pacific Plate
- B) Cocos Plate
- C) Nazca Plate
- D) North American Plate
- E) Philippine Plate

Answer: <https://biology-forums.com/index.php?topic=417736>

Question 803

Based on shoreline deposits from 125,000 years ago, scientists believe that the sea will _____ before the next ice age.

- A) rise 5-6 meters
- B) drop 1-2 meters
- C) drop 10-12 meters
- D) rise 10-12 meters

Answer: <https://biology-forums.com/index.php?topic=417687>

Question 804

What is the overall transport of the medium, through which a wave travels, in the direction of wave movement?

- A) 0%
- B) 10%
- C) 50%
- D) 80%

Answer: <https://biology-forums.com/index.php?topic=418038>

Question 805

How is permeability different from hydraulic conductivity?

Answer: <https://biology-forums.com/index.php?topic=417303>

Question 806

What are radioactive decay rates in minerals affected by?

- A) nothing
- B) variations in gravity and magnetism
- C) heat
- D) temperature and pressure

Answer: <https://biology-forums.com/index.php?topic=417889>

Question 807

Why did the first planetesimals form at the outer edge of the nebular disk?

- A) Cooler temperatures favored condensation there.
- B) The heat of fusion was more favorable there.
- C) The smaller particles were gathered at the outer edge.
- D) The planetary accretion gravity spun the planetesimal particles to the outer edge.

Answer: <https://biology-forums.com/index.php?topic=418211>

Question 808

The word "graben" originates from

- A) the Japanese word for "nest."
- B) the German word for "ditch."
- C) the German word for "tumble."
- D) the English word for "grab."

Answer: <https://biology-forums.com/index.php?topic=417391>

Question 809

Earth's oceanic crust is _____ thick.

- A) 37.5 km
- B) 25 km
- C) 50 km
- D) 7 km km

Answer: <https://biology-forums.com/index.php?topic=418102>

Question 810

The reaction of halite with water is an example of

- A) hydrolysis.
- B) dissolution.
- C) oxidation.
- D) exfoliation.

Answer: <https://biology-forums.com/index.php?topic=417296>

Question 811

Which feature has horizontal rocks deposited on top of layers of horizontal rocks, with a slight surface of erosion between the two sets of sedimentary layers?

- A) a disconformity

- B) an unconformity
- C) a nonconformity
- D) an angular unconformity

Answer: <https://biology-forums.com/index.php?topic=417816>

Question 812

Streamload that floats in the water column is called

- A) roll load.
- B) column load.
- C) suspended load.
- D) float load.

Answer: <https://biology-forums.com/index.php?topic=416964>

Question 813

What happens to the volume of water flowing in the aquifer per unit time if area available for water to flow in increases?

Answer: <https://biology-forums.com/index.php?topic=417300>

Question 814

Faults that show a combination of dip-slip and strike-slip movement are

- A) strike-dip faults.
- B) reverse faults.
- C) oblique-slip faults.
- D) diagonal-strike faults.

Answer: <https://biology-forums.com/index.php?topic=417344>

Question 815

_____ increase as the roughness between two objects in contact with one another increases.

- A) Cohesion
- B) Flow
- C) Friction
- D) Creep

Answer: <https://biology-forums.com/index.php?topic=418285>

Question 816

A brittle deformation

- A) is a plastic deformation that occurs under high pressure.
- B) is a break that occurs at a relatively small strain.
- C) is a shattering motion that occurs at a fault.
- D) is a deformation that may reverse to its original form.

Answer: <https://biology-forums.com/index.php?topic=417379>

Question 817

Where have the oldest dated sand grains been found on Earth?

- A) The United States
- B) Africa
- C) Canada
- D) Australia

Answer: <https://biology-forums.com/index.php?topic=417879>

Question 818

A grain size of 0.1 millimeter typically requires a wind speed of _____ in order to be picked up.

- A) 5 kilometers per hour
- B) 8 kilometers per hour
- C) 1 kilometer per hour
- D) 15 kilometers per hour

Answer: <https://biology-forums.com/index.php?topic=417885>

Question 819

What do muscovite and biotite have in common?

- A) They have the same type of cleavage.
- B) They have identical chemical compositions.
- C) They have the same luster.
- D) They are the same color.

Answer: <https://biology-forums.com/index.php?topic=416805>

Question 820

When waves continue into progressively shallower water, elliptical wave motion near the seafloor produces

- A) swash.
- B) ripples.
- C) headlands.
- D) breakers.

Answer: <https://biology-forums.com/index.php?topic=417749>

Question 821

Which mineral is not present in gneiss at a depth of 5 km or more?

- A) feldspar
- B) mica
- C) calcite
- D) quartz

Answer: <https://biology-forums.com/index.php?topic=418000>

Question 822

"A rising sea temperature results in a higher sea level." Evaluate this statement.

- A) It is true; the large quantity of glacier ice that melts when the sea temperature is higher.
- B) It is false; when the sea temperature is higher, more water is returned to the continents.
- C) It is true; materials expand at higher temperatures.
- D) It is false; more evaporation occurs at higher temperatures.

Answer: <https://biology-forums.com/index.php?topic=417690>

Question 823

Which soil horizon may be red in color and contain clay?

- A) C horizon
- B) B horizon
- C) O horizon
- D) A horizon

Answer: <https://biology-forums.com/index.php?topic=418043>

Question 824

What does the detector of a TEM detect?

- A) strength of magnetic field required to move electrons in a substance
- B) proton streams
- C) arrival of electrons
- D) light rays

Answer: <https://biology-forums.com/index.php?topic=416823>

Question 825

What happens to the volume of water flowing in the aquifer per unit time if the velocity increases?

Answer: <https://biology-forums.com/index.php?topic=417297>

Question 826

Which rock deposits suggest that there was a lack of oxygen in Earth's early atmosphere?

- A) coal
- B) iron-ore

- C) plutonic igneous rock
- D) felsic magma flows

Answer: <https://biology-forums.com/index.php?topic=418270>

Question 827

True or False: Every part of the Neptunist doctrine for the formation of rocks was false.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417047>

Question 828

What is the ratio of unstable isotopes to the total number of natural isotopes?

- A) 42 unstable to 120 natural isotopes
- B) 38 unstable to 506 natural isotopes
- C) 81 unstable to 92 natural isotopes
- D) 70 unstable to 339 natural isotopes

Answer: <https://biology-forums.com/index.php?topic=417851>

Question 829

What caused holes in marble Roman columns 6 meters above sea level?

- A) salt-water corrosion
- B) chemical weathering
- C) physical weathering
- D) clams

Answer: <https://biology-forums.com/index.php?topic=417664>

Question 830

The distance between successive wave crests is called

- A) wavelength.
- B) wave height.
- C) wave base.
- D) wave period.

Answer: <https://biology-forums.com/index.php?topic=417723>

Question 831

What would happen if you used data from a very wet set of years to compute the recurrence interval calculations?

Answer: <https://biology-forums.com/index.php?topic=417042>

Question 832

True or False: All of the seismic hazards in the United States are located west of the Rocky Mountains.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417503>

Question 833

An M7 earthquake has _____ times more energy than an M5 earthquake.

- A) 2
- B) 32
- C) 1024
- D) 100

Answer: <https://biology-forums.com/index.php?topic=417421>

Question 834

The western United States has

- A) high-density mantle very close to the surface.
- B) high-density mantle that extends very deep.
- C) low-density mantle close to the surface.

D) low-density mantle that extends extraordinarily deep.

Answer: <https://biology-forums.com/index.php?topic=417891>

Question 835

Which is the best analogy for isostasy?

- A) crumbling layered cookies
- B) ice cubes in water
- C) a dog sleeping on a water bed
- D) blocks of wood in water

Answer: <https://biology-forums.com/index.php?topic=417841>

Question 836

Judge the following sentence according to the criteria given below It is essential to know the rate of current sea-level rise because approximately 100 million people live around the world at locations less than 1 meter above sea level.

- A) The assertion is incorrect but the reason is correct.
- B) The assertion and the reason are both correct, and the reason is valid.
- C) The assertion is correct but the reason is incorrect.
- D) The assertion and the reason are both correct, but the reason is invalid.
- E) Both the assertion and the reason are incorrect.

Answer: <https://biology-forums.com/index.php?topic=417775>

Question 837

What agent polishes rocks smooth as a glacier passes?

- A) glacial flour
- B) ice
- C) transported pebbles
- D) meltwater

Answer: <https://biology-forums.com/index.php?topic=417360>

Question 838

The highest seismic hazards in the contiguous United States occur

- A) west of the Rocky Mountains.
- B) in the great plains.
- C) only in California.
- D) along the east coast.

Answer: <https://biology-forums.com/index.php?topic=417510>

Question 839

In a channel, where is flow velocity the fastest?

- A) next to the outside bank of a meander
- B) near the outside bank of a meander
- C) near the inside of a meander
- D) in the middle of a curve

Answer: <https://biology-forums.com/index.php?topic=416883>

Question 840

Which Hawaiian island is the youngest?

- A) Hawaii
- B) Kauai
- C) Oahu
- D) Kahoolawe

Answer: <https://biology-forums.com/index.php?topic=417742>

Question 841

Which of the following is not an effect of convection of Earth's outer core?

- A) Animals follow continuous migration patterns.
- B) Hazardous cosmic radiation is deflected from Earth.

- C) Humans are able to navigate using compasses.
D) Earth's plates move with tectonic action.

Answer: <https://biology-forums.com/index.php?topic=417158>

Question 842

Deformation under low stress, below yield strength, is often

- A) elastic.
B) plastic.
C) compressive.
D) irreversible.

Answer: <https://biology-forums.com/index.php?topic=417376>

Question 843

Why do we develop a well?

Answer: <https://biology-forums.com/index.php?topic=417282>

Question 844

Which type of heat transfer is described as the transfer of heat from hot regions to cold regions?

- A) transference
B) radiation
C) conduction
D) convection

Answer: <https://biology-forums.com/index.php?topic=417094>

Question 845

Which of the following scenarios would be least susceptible to mass movements?

- A) Shallow slope, underlain by sandstone and conglomerate
B) Steep slope, underlain by siltstone and mudstone
C) Shallow slope, underlain by siltstone and mudstone
D) Steep slope, underlain by sandstone and conglomerate

Answer: <https://biology-forums.com/index.php?topic=418302>

Question 846

How do glacial lakes form?

Answer: <https://biology-forums.com/index.php?topic=417534>

Question 847

Where does a river flow the fastest?

Answer: <https://biology-forums.com/index.php?topic=417027>

Question 848

The type of gravity-driven, downslope movement that results in a deposit of chaotically mixed fragments of different sizes with a very irregular, bumpy upper surface is called

- A) slide.
B) slump.
C) creep.
D) fall.
E) flow.

Answer: <https://biology-forums.com/index.php?topic=418260>

Question 849

The San Andreas fault has shifted rocks hundreds of kilometers. For example, plutonic rocks on the Pacific Ocean (western) side of the fault have been displaced from southern California to northern California, relative to rocks on the North American (eastern) side. The San Andreas fault is classified as a

- A) right-lateral strike-slip fault.
B) reverse dip-slip fault.
C) left-lateral strike-slip fault.

D) normal dip-slip fault.

Answer: <https://biology-forums.com/index.php?topic=417493>

Question 850

Continents are the product of mountain building at ancient _____ boundaries.

- A) decorticate
- B) divergent
- C) transform
- D) convergent

Answer: <https://biology-forums.com/index.php?topic=417949>

Question 851

The classification of rocks into sedimentary, igneous and metamorphic rocks is an example of a/an _____ classification scheme.

- A) regional
- B) descriptive
- C) genetic
- D) illustrative

Answer: <https://biology-forums.com/index.php?topic=416870>

Question 852

Which of the following is least affected by convection heating?

- A) rain
- B) a volcano erupting
- C) Earth's mantle
- D) wind

Answer: <https://biology-forums.com/index.php?topic=418346>

Question 853

Which type of rock is abundant in older rock formations but more rare in newer formations, may contain oil or gas, and is formed by a reaction with a previous sedimentary rock?

- A) bituminous coal
- B) dolostone
- C) chert
- D) anthracite

Answer: <https://biology-forums.com/index.php?topic=417491>

Question 854

Choose the option that correctly orders the fluids from the one that sits at the bottom of a sandstone reservoir to the one that is closest to the low-porosity shale at the top of the reservoir.

- A) gas, water, oil
- B) oil, gas, water
- C) gas, oil, water
- D) water, gas, oil

Answer: <https://biology-forums.com/index.php?topic=417361>

Question 855

Which of the following did not form in the hotter inner part of the solar system according to solar system theory?

- A) water vapor
- B) oxides
- C) silicates
- D) metal dust

Answer: <https://biology-forums.com/index.php?topic=418209>

Question 856

A shale metamorphosed to low metamorphic grade would become a(n)

- A) schist.
- B) slate.

- C) amphibolite.
- D) gneiss.

Answer: <https://biology-forums.com/index.php?topic=417612>

Question 857

Which of the following is least likely to reduce soil fertility?

- A) a fallow period with no plant growth
- B) the dissolution of minerals
- C) weathering
- D) agricultural use and harvest

Answer: <https://biology-forums.com/index.php?topic=418065>

Question 858

Judge the following sentence according to the criteria given below In barrier-island shorelines tidal currents are much stronger in tidal inlets between adjacent islands than on the nearby tidal flats because neap tides occur when the Moon's gravitational attraction is oriented perpendicular to that of the Sun.

- A) The assertion and the reason are both correct, but the reason is invalid.
- B) The assertion is incorrect but the reason is correct.
- C) Both the assertion and the reason are incorrect.
- D) The assertion is correct but the reason is incorrect.
- E) The assertion and the reason are both correct, and the reason is valid.

Answer: <https://biology-forums.com/index.php?topic=417783>

Question 859

Put the steps in the correct order. 1. Stress exceeds rock yield strength. 2. Potential energy is released as motion energy. 3. Strong rocks absorb large stresses during elastic strain. 4. Rock breaks.

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

Answer: <https://biology-forums.com/index.php?topic=417406>

Question 860

True or False: The lithospheric plates are rigid and strong, in contrast to the underlying weaker asthenosphere.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418371>

Question 861

True or False: Scientific research always leads immediately to correct explanations of natural phenomena.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418364>

Question 862

Lava-fountain blobs, pumice and ash are all examples of _____ materials.

- A) plutonic
- B) pyroclastic
- C) granitic
- D) basaltic

Answer: <https://biology-forums.com/index.php?topic=417124>

Question 863

What is the relationship between density and specific gravity?

- A) They both measure substances in the same way.
- B) They can have the same numerical value.
- C) They both have the same definition.

D) They both represent the same dimensional units.

Answer: <https://biology-forums.com/index.php?topic=416803>

Question 864

Who was least accurate when making hypotheses about the age of Earth?

- A) James Hutton
- B) John Joly
- C) James Ussher
- D) Lord Kelvin

Answer: <https://biology-forums.com/index.php?topic=417839>

Question 865

A glacially formed lake within a cirque is called a

- A) horn.
- B) roche moutonee.
- C) tarn.
- D) cirque.

Answer: <https://biology-forums.com/index.php?topic=417474>

Question 866

The Wadati-Benioff zone outlines the _____ at a convergent boundary.

- A) ocean ridge
- B) subducting plate
- C) ocean trench
- D) transform fault

Answer: <https://biology-forums.com/index.php?topic=417708>

Question 867

Although muscovite, feldspar and quartz are not considered useful as index minerals, which of the following situations could be useful in determining the grade of metamorphism in a region?

- A) The coexistence of muscovite, feldspar and quartz.
- B) The coexistence of feldspar and quartz.
- C) The disappearance of rocks containing quartz.
- D) The disappearance of rocks containing muscovite and quartz.

Answer: <https://biology-forums.com/index.php?topic=417707>

Question 868

03 The oppositely dipping sides of a fold are its limbs, which join together along a hinge line or fold _____.

- A) shaft
- B) axis
- C) zone
- D) pivot

Answer: <https://biology-forums.com/index.php?topic=417454>

Question 869

About how many minerals make up the majority of rocks on Earth's surface?

- A) 10
- B) 12
- C) 40
- D) 100

Answer: <https://biology-forums.com/index.php?topic=416903>

Question 870

A tabular intrusive body at a high angle to the layers in surrounding sedimentary rock is called a

- A) dike.
- B) stock.
- C) sill.

D) batholith.

Answer: <https://biology-forums.com/index.php?topic=417250>

Question 871

True or False: Sedimentary rocks are the most common rocks on Earth's surface.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417292>

Question 872

The San Andreas Fault is an example of

- A) a transform boundary.
- B) neither a divergent, convergent or transform boundary.
- C) a convergent boundary.
- D) a divergent boundary.

Answer: <https://biology-forums.com/index.php?topic=416800>

Question 873

Where is water movement the greatest in an ocean wave?

- A) at the surface
- B) 1 m below the surface
- C) 10 m below the surface
- D) 15 m below the surface

Answer: <https://biology-forums.com/index.php?topic=418040>

Question 874

Typical ocean waves have wavelengths of _____ meters.

- A) 10 to 200
- B) 200 to 1000
- C) 0.01 to 0.5
- D) 0.5 to 20

Answer: <https://biology-forums.com/index.php?topic=417732>

Question 875

Which observation suggests that the continental crust did not form by the same processes that presently occur on Earth?

- A) Magnetic records in the rocks show that the gravity was different.
- B) There is more water now so the processes must be different chemically.
- C) The time frame is too slow.
- D) The crust is largely andesitic.

Answer: <https://biology-forums.com/index.php?topic=418254>

Question 876

Which of the following is analogous to the observation that earthquake arrival times at greater distances are progressively earlier than predicted using constant wave velocities measured over short distances in shallow layers.

- A) If you take the highway the drive may be longer but you will get to your location faster.
- B) A large group of people should not march in tandem when crossing a bridge.
- C) If you put a small amount of money each week into a savings account, the money will grow due to compound interest.
- D) Digital cameras produce a color image by combining images taken with blue, green and red filters.

Answer: <https://biology-forums.com/index.php?topic=418163>

Question 877

What is the difference between limestone and marble?

- A) crystal size and shape
- B) chemical composition
- C) source rock
- D) color

Answer: <https://biology-forums.com/index.php?topic=417682>

Question 878

The location of farms close to volcanoes in Indonesia is an example of the role of _____ in determining soil characteristics.

- A) vegetation
- B) climate
- C) landscape relief
- D) time
- E) parent material

Answer: <https://biology-forums.com/index.php?topic=418121>

Question 879

The Neptunist interpretation of rock formation held that nearly all rocks formed by

- A) transport from Neptune.
- B) cooling from molten rock.
- C) chemical precipitation from water.
- D) the remains of plants and animals.

Answer: <https://biology-forums.com/index.php?topic=417025>

Question 880

A rock that is 400 million years old comes from the _____ Period.

- A) Paleozoic
- B) Phanerozoic
- C) Silurian
- D) Precambrian

Answer: <https://biology-forums.com/index.php?topic=417971>

Question 881

A geologist looks at a piece of rock from Yosemite National Park under a microscope and sees tiny crystals of olivine, pyroxene, and plagioclase feldspar. What process might have formed this rock?

- A) melting underground, flowing to Earth's surface, and solidification above ground
- B) solidification underground, violent volcanic eruption of ash and solid rock
- C) both melting and crystallization underground
- D) melting underground, violent volcanic eruption, and solidification above ground

Answer: <https://biology-forums.com/index.php?topic=417093>

Question 882

At greater depths, rocks are

- A) weaker and more plastic.
- B) stronger and more brittle.
- C) weaker and more brittle.
- D) stronger and more plastic.

Answer: <https://biology-forums.com/index.php?topic=417385>

Question 883

The gem form of this mineral group is called peridot.

- A) olivine
- B) amphibole
- C) pyroxene
- D) feldspar

Answer: <https://biology-forums.com/index.php?topic=417017>

Question 884

What is the name for a period of time when the magnetic field is oriented in the opposite direction?

- A) an underage polarity
- B) a normal polarity reversal
- C) a reversed polarity interval
- D) a magnetic reversal

Answer: <https://biology-forums.com/index.php?topic=417175>

Question 885

The only planet in our solar system with a density less than water (1 gram per cubic centimeter) is

- A) Uranus.
- B) Saturn.
- C) Earth.
- D) Jupiter.

Answer: <https://biology-forums.com/index.php?topic=418288>

Question 886

Sediment is deposited in a stream when

- A) stream power is equal to bedload.
- B) stream power is less than required to move the sediment carried in from upstream.
- C) bedload is greater than stream power.
- D) stream power is greater than required to move the sediment carried in from upstream.

Answer: <https://biology-forums.com/index.php?topic=416841>

Question 887

What does the Latin word igneus mean?

- A) fiery
- B) pressurized
- C) dissolved
- D) crushed

Answer: <https://biology-forums.com/index.php?topic=416945>

Question 888

A longshore current exists when

- A) waves are parallel to the shoreline.
- B) waves are perpendicular to the shoreline.
- C) the distance between wave crests increases.
- D) waves approach the shoreline at an angle.

Answer: <https://biology-forums.com/index.php?topic=417752>

Question 889

The seafloor spreading hypothesis predicts that the mid-ocean ridges should be locations of rising asthenosphere. This prediction is supported by seismic data that indicates

- A) slower seismic wave velocities at the ridges.
- B) faster seismic wave velocities at the trenches.
- C) slower seismic wave velocities at the trenches.
- D) faster seismic wave velocities at the ridges.

Answer: <https://biology-forums.com/index.php?topic=417700>

Question 890

What aluminosilicate polymorph is stable at a pressure of 4 kilobars and a temperature of 400 degrees C?

- A) sillimanite
- B) andalusite
- C) kyanite and andalusite stable
- D) kyanite

Answer: <https://biology-forums.com/index.php?topic=417561>

Question 891

The area where the flow is faster and deeper around the outside of a channel bend is called

- A) a braid.
- B) a meander.
- C) a cutbank.
- D) a point bar.

Answer: <https://biology-forums.com/index.php?topic=416877>

Question 892

Which process does not heat the inside of Earth?

- A) radioactive decay of elements in the mantle and crust
- B) volcanic action
- C) crystallization of iron in the core
- D) pressure applied by the weight of oceans

Answer: <https://biology-forums.com/index.php?topic=418088>

Question 893

Besides sedimentary rocks, which other rocks can occasionally contain fossils?

- A) plutonic
- B) exotic
- C) volcanic
- D) metamorphic

Answer: <https://biology-forums.com/index.php?topic=417383>

Question 894

True or False: Radioactive decay permits geologists to determine the age of some minerals.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417927>

Question 895

Volcanoes are present at convergent plate boundaries because

- A) decompression melting due to decreased pressure at the boundary causes the mantle to melt and rise into volcano formations.
- B) water is carried down with the subducting plate and causes the mantle to melt.
- C) heat from the inner mantle travels up along the subducting plate.
- D) the plates rub together, causing friction and heat.

Answer: <https://biology-forums.com/index.php?topic=417278>

Question 896

The average composition of continental crust ranges from _____ to _____.

- A) gabbro; diorite
- B) diorite; tonalite
- C) peridotite; gabbro
- D) tonalite; granite

Answer: <https://biology-forums.com/index.php?topic=418114>

Question 897

Sedimentary rocks do not record

- A) the tectonic history of Earth over time.
- B) organisms that lived in the past.
- C) regional climate changes.
- D) metamorphic processes that have occurred over time.

Answer: <https://biology-forums.com/index.php?topic=417747>

Question 898

_____ soils commonly consist entirely of O and A horizons.

- A) Rainforest
- B) Wetland
- C) Forest
- D) Desert
- E) Grassland

Answer: <https://biology-forums.com/index.php?topic=418150>

Question 899

Which climatic factor is described as the angle between the vertical and rotational axis?

- A) the eccentricity
- B) the obliquity
- C) the precession
- D) the Milankovitch cycle

Answer: <https://biology-forums.com/index.php?topic=417447>

Question 900

A fine-grained mafic rock is

- A) dacite.
- B) andesite.
- C) rhyolite.
- D) basalt.

Answer: <https://biology-forums.com/index.php?topic=417157>

Question 901

Ripples in sand caused by elliptical wave motion tend to

- A) slope irregularly depending on the current.
- B) slope toward the shore.
- C) slope equally away from the shore and toward the shore.
- D) slope away from the shore more steeply than toward the shore.

Answer: <https://biology-forums.com/index.php?topic=417593>

Question 902

Compared to its surroundings, the rising asthenosphere in mid-ocean ridges is

- A) probably colder and transmits seismic waves faster.
- B) probably hotter and transmits seismic waves faster.
- C) probably colder and transmits seismic waves slower.
- D) probably hotter and transmits seismic waves slower.

Answer: <https://biology-forums.com/index.php?topic=417592>

Question 903

_____ soils in the United States typically have thick, dark, organic-rich A horizons.

- A) Desert
- B) Grassland
- C) Wetland
- D) Forest
- E) Rainforest

Answer: <https://biology-forums.com/index.php?topic=418146>

Question 904

The oldest rocks are exposed along the axis of

- A) a dip.
- B) an anticline.
- C) a plunging fold.
- D) a syncline.

Answer: <https://biology-forums.com/index.php?topic=417331>

Question 905

Which types of rocks can exhibit layering?

- A) Igneous and Metamorphic rocks
- B) Sedimentary, Igneous and Metamorphic rocks
- C) Sedimentary and Metamorphic rocks
- D) Sedimentary rocks

Answer: <https://biology-forums.com/index.php?topic=416995>

Question 906

Variations in which of the following do not significantly determine melting conditions for different rock compositions?

- A) temperature
- B) texture
- C) water content
- D) pressure

Answer: <https://biology-forums.com/index.php?topic=417267>

Question 907

What hypothesis has been presented for the close parallel relationship of the magnetic field and the rotation axis?

- A) Rotation causes spiraling convection currents in the inner core.
- B) Rotation causes spiraling convection currents in the outer core.
- C) Rotation causes spiraling convection currents in the inner mantle.
- D) Rotation causes spiraling convection currents in the outer mantle.

Answer: <https://biology-forums.com/index.php?topic=417200>

Question 908

Plant roots extract water from

- A) the saturated zone.
- B) below the water table.
- C) streams.
- D) the unsaturated zone.

Answer: <https://biology-forums.com/index.php?topic=417229>

Question 909

The majority of Earth's deserts form as _____ deserts.

- A) subtropical
- B) rain-shadow
- C) polar
- D) coastal

Answer: <https://biology-forums.com/index.php?topic=418012>

Question 910

Sediment is removed from the beach budget in the United States by dams for power on rivers. How does this affect the coastline?

- A) uplift becomes more severe
- B) subsidence becomes more severe
- C) erosion becomes more severe
- D) sedimentation becomes more severe

Answer: <https://biology-forums.com/index.php?topic=417671>

Question 911

A fine grained, greasy metamorphic rock composed of serpentine is classified as a(n)

- A) serpentinite.
- B) marble.
- C) amphibolite.
- D) greenstone.

Answer: <https://biology-forums.com/index.php?topic=417588>

Question 912

What is a typical range of pore sizes in rock?

- A) 0.1 millimeter to 3 centimeters
- B) 10 millimeters to 5 centimeters
- C) 5 micrometers to 100 micrometers
- D) 0.1 millimeter to 0.8 millimeter

Answer: <https://biology-forums.com/index.php?topic=417081>

Question 913

True or False: Plutonic and metamorphic rocks are particularly susceptible to oxidation reactions when they are exposed on Earth's surface.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417320>

Question 914

300 million years ago Ancestral North America was

- A) in its present day location.
- B) at 60 degrees north latitude.
- C) part of Pangea.
- D) at the south pole.

Answer: <https://biology-forums.com/index.php?topic=417730>

Question 915

Loose sediment is converted into consolidated sedimentary rock by

- A) precipitation and melting.
- B) cooling and freezing.
- C) compaction and cementation.
- D) recrystallization and transformation.

Answer: <https://biology-forums.com/index.php?topic=416888>

Question 916

Judge the following sentence according to the criteria given below. Deltas are immune from the effects of sea-level rise because deltas are headlands that build into the sea by the deposition of river sediment.

- A) The assertion and the reason are both correct, but the reason is invalid.
- B) The assertion is incorrect but the reason is correct.
- C) The assertion is correct but the reason is incorrect.
- D) The assertion and the reason are both correct, and the reason is valid.
- E) Both the assertion and the reason are incorrect.

Answer: <https://biology-forums.com/index.php?topic=417772>

Question 917

Which depositional landform is described as a long, steep-sided curving ridge of alluvium that filled an ice tunnel beneath a glacier and was left behind when the glacier melted?

- A) kame
- B) moraine
- C) esker
- D) drumlin

Answer: <https://biology-forums.com/index.php?topic=417345>

Question 918

A stream increases its channel slope as it moves downstream. If the water depth remains the same or decreases slightly, this stream will

- A) erode additional sediment load due to an decrease in shear stress.
- B) deposit some of its sediment load due to a increase in shear stress.
- C) erode additional sediment load due to an increase in shear stress.
- D) continue to carry the same sediment load as there is no change in shear stress.
- E) deposit some of its sediment load due to a decrease in shear stress.

Answer: <https://biology-forums.com/index.php?topic=416973>

Question 919

A sediment grain that bounces typically dislodges

- A) two or three more sediment grains.
- B) one other sediment grain.
- C) twenty more sediment grains.
- D) ten more sediment grains.

Answer: <https://biology-forums.com/index.php?topic=417888>

Question 920

Which is not a possible result of stress on a rock?

- A) strain
- B) deformation
- C) flow
- D) expansion

Answer: <https://biology-forums.com/index.php?topic=417373>

Question 921

For most streams, bankfull discharge occurs

- A) about once every 75 years.
- B) about once every 2 years.
- C) daily.
- D) about once per month.

Answer: <https://biology-forums.com/index.php?topic=416820>

Question 922

A coarse-grained ultramafic rock is

- A) peridotite.
- B) tonalite.
- C) gabbro.
- D) diorite.

Answer: <https://biology-forums.com/index.php?topic=417174>

Question 923

Which of the following correctly states the connection between lithosphere age and water depth?

- A) An younger average lithosphere age corresponds with lower sea levels.
- B) An older average lithosphere age corresponds with higher sea levels.
- C) An younger average lithosphere age corresponds with higher sea levels.
- D) There is no connection between average lithosphere age and sea level.

Answer: <https://biology-forums.com/index.php?topic=417986>

Question 924

Water concentrated where low permeability in specific spots create a shallow saturated horizon balanced above the water table is called _____ ground water.

- A) dwelled
- B) roosted
- C) perched
- D) balanced

Answer: <https://biology-forums.com/index.php?topic=417237>

Question 925

How far down do downwelling and upwelling reach in the Earth?

- A) to the lithosphere
- B) to the lower mantle
- C) to the asthenosphere
- D) to the transition zone

Answer: <https://biology-forums.com/index.php?topic=417668>

Question 926

Which term is defined as a measure of the amount of stress that a material can endure before it fails by breaking or flowing?

- A) strain
- B) elongation
- C) shortening
- D) strength

Answer: <https://biology-forums.com/index.php?topic=417367>

Question 927

What is the unit of increase on the Mohs Relative Hardness Scale?

- A) An increase of one unit indicates the rock is seven times as hard as the one before.
- B) The scale is variable.
- C) An increase of one unit indicates the rock is ten times as hard as the one before.
- D) An increase of one unit indicates the rock is twice as hard as the one before.

Answer: <https://biology-forums.com/index.php?topic=416801>

Question 928

What type of bonding is found in quartz?

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

Answer: <https://biology-forums.com/index.php?topic=416857>

Question 929

Why is it more difficult to discern the formation processes of the continental crust versus the oceanic crust?

- A) The oceanic crust has fewer layers and fewer types of rocks.
- B) There are many more volcanoes under the ocean.
- C) The continental crust is much older.
- D) The continental crust has had more weathering, uplift, and earthquake action.

Answer: <https://biology-forums.com/index.php?topic=418251>

Question 930

"Horst," meaning "nest," is a suitable word for the rock formation it describes because

- A) these rock formations are pushed up to a high place, and horsts are nests in high places.
- B) these rock formations are also in ditches or valleys, like nests.
- C) these rock formations are circular and cupped like nests.
- D) these rock formations are typically in protected valleys.

Answer: <https://biology-forums.com/index.php?topic=417394>

Question 931

Why is heat highest at the center of a nebular disk?

- A) Planetary accretion gravity is greatest there.
- B) Many particles are moving there.
- C) The center of momentum is there.
- D) The potential energy is greatest there.

Answer: <https://biology-forums.com/index.php?topic=418203>

Question 932

How were the Lakes formed?

Answer: <https://biology-forums.com/index.php?topic=417796>

Question 933

Where on earth would you go to travel the longest distance to encircle the globe?

Answer: <https://biology-forums.com/index.php?topic=418027>

Question 934

What aluminosilicate polymorph is stable at a pressure of 1 kilobar and a temperature of 700 degrees C?

- A) andalusite and kyanite
- B) andalusite and sillimanite
- C) andalusite, sillimanite and kyanite
- D) sillimanite and kyanite

Answer: <https://biology-forums.com/index.php?topic=417556>

Question 935

The location of an earthquake within Earth is called the

- A) tsunami.
- B) focus.
- C) seismic center.
- D) epicenter.

Answer: <https://biology-forums.com/index.php?topic=418149>

Question 936

Which compound is least likely to be washed downward from the A horizon?

- A) organic matter
- B) magnesium minerals
- C) potassium crystals
- D) silicate minerals

Answer: <https://biology-forums.com/index.php?topic=418063>

Question 937

If spread evenly over all of Earth's land surfaces, what depth would the sediment that washes into the sea each year cover?

- A) 8 m
- B) 1 m
- C) 8 mm
- D) 0.01 mm

Answer: <https://biology-forums.com/index.php?topic=416824>

Question 938

What is the age of Earth, according to recent geochemical studies?

- A) 4.56 million years
- B) 6.56 million years
- C) 6.56 billion years
- D) 4.56 billion years

Answer: <https://biology-forums.com/index.php?topic=418324>

Question 939

What kind of path does water follow underground, and why?

- A) straight, due to rock layering
- B) angled, due to gravity and pressure
- C) curved, due to gravity and pressure
- D) curved, due to the shape of Earth

Answer: <https://biology-forums.com/index.php?topic=417114>

Question 940

Atoms that have the same number of protons and different numbers of neutrons are called

- A) electrons.
- B) isotopes.
- C) carbon atoms.
- D) radioactive.

Answer: <https://biology-forums.com/index.php?topic=417916>

Question 941

Judge the following sentence according to the criteria given below: When studying alternating sandstone and shale beds prior to 1900, sedimentologists interpreted that the sediment did not quietly settle out to the seafloor because they saw scoured bases on the graded beds and current-formed cross-beds.

- A) The assertion is correct but the reason is incorrect.
- B) Both the assertion and the reason are incorrect.
- C) The assertion and the reason are both correct, and the reason is valid.
- D) The assertion is incorrect but the reason is correct.

E) The assertion and the reason are both correct, but the reason is invalid.

Answer: <https://biology-forums.com/index.php?topic=417517>

Question 942

Which calculation was done to determine the rate of calcite accumulation in soils in Gile and Grossman's experiment?

- A) time (calculated by using known fossils) divided by the number of kilograms of calcite found in the soil column
- B) time (calculated by radioactive carbon dating) divided by the number of kilograms of calcite found in the soil column (measured in the lab)
- C) the number of kilograms of calcite found in the soil column (estimated by comparison with known sources) multiplied by time (estimated by comparison with similar rock layers elsewhere)
- D) the number of kilograms of calcite found in the soil column divided by time (calculated by radioactive carbon dating)

Answer: <https://biology-forums.com/index.php?topic=418103>

Question 943

Which of the following determines why subducting plates sink at a particular location?

- A) the heat of the asthenosphere at the location
- B) the pushing movement of the adjacent plate
- C) the density of the asthenosphere at the location
- D) the density of the lithosphere at the location

Answer: <https://biology-forums.com/index.php?topic=417614>

Question 944

Which of the following is the best evidence that rock creep is occurring?

- A) bent tree trunks
- B) talus slopes
- C) a cracked and displaced section of highway
- D) a flowing-concrete appearance to a rock formation

Answer: <https://biology-forums.com/index.php?topic=418182>

Question 945

Where do the waves come from in the Great Lakes?

Answer: <https://biology-forums.com/index.php?topic=417790>

Question 946

Which statement is false?

- A) Sedimentary rocks may change into other kinds of rocks under forces of heat and pressure.
- B) Sedimentary rocks may undergo radioactive changes that result in one element changing into another.
- C) Sedimentary rocks experience physical changes such as dissolving and crystallization.
- D) Sedimentary rocks may undergo chemical changes such as organic material changing into coal.

Answer: <https://biology-forums.com/index.php?topic=417325>

Question 947

A(n) _____ is formed on a floodplain when ground water seeps into a cutoff channel of a meandering river.

- A) a natural levee
- B) a cutbank
- C) an oxbow lake
- D) a cutoff lake

Answer: <https://biology-forums.com/index.php?topic=416886>

Question 948

What is the main difference between rain-shadow deserts and tropical deserts?

- A) the parent rock type
- B) the amount of precipitation
- C) cause of the lack of precipitation
- D) the typical vegetation

Answer: <https://biology-forums.com/index.php?topic=417861>

Question 949

Base level of a stream is a balance of

- A) velocity and discharge.
- B) stream power and sediment load.
- C) precipitation and infiltration.
- D) runoff and evaporation.

Answer: <https://biology-forums.com/index.php?topic=417018>

Question 950

True or False: Earth's early atmosphere contained abundant oxygen.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418315>

Question 951

The principle of isostasy tells us that the key factor(s) determining the elevation of a floating object is(are)

- A) density only.
- B) thickness only.
- C) the percentage of ice.
- D) thickness and density.

Answer: <https://biology-forums.com/index.php?topic=417925>

Question 952

Which type of glacier most resembles a river?

- A) an ice sheet
- B) a valley glacier
- C) an ice cap
- D) a small glacier

Answer: <https://biology-forums.com/index.php?topic=417342>

Question 953

_____ soils often are rich in a black organic rich plant residue called peat.

- A) Desert
- B) Grassland
- C) Rainforest
- D) Wetland
- E) Forest

Answer: <https://biology-forums.com/index.php?topic=418152>

Question 954

The chemical weathering of olivine results in the production of

- A) ions in solution.
- B) limonite only.
- C) limonite, clay and ions in solution.
- D) limonite and clay.

Answer: <https://biology-forums.com/index.php?topic=417305>

Question 955

Liquefaction occurs when

- A) grains rise up to the surface in groundwater during an earthquake and cause mass movement.
- B) grains of earth materials settle downward during shaking and wet ground becomes fluid.
- C) rivers and water bodies overrun and dissolve earth materials during a quake.
- D) rock heats enough that it behaves like a liquid.

Answer: <https://biology-forums.com/index.php?topic=417445>

Question 956

Why do we know that apparent polar wander didn't actually happen, and that the poles have remained more or less where they are now?

Answer: <https://biology-forums.com/index.php?topic=417782>

Question 957

What is the depth of the deepest well on Earth?

- A) 3 km
- B) 8 km
- C) 12 km
- D) 98 km

Answer: <https://biology-forums.com/index.php?topic=417989>

Question 958

Which appears to be the best method of living near floodplains?

Answer: <https://biology-forums.com/index.php?topic=417060>

Question 959

Which is not a primary reaction of chemical weathering?

- A) oxidation
- B) exfoliation
- C) hydrolysis
- D) dissolution

Answer: <https://biology-forums.com/index.php?topic=418061>

Question 960

The determination that a granite pluton is not intrusive into overlying sedimentary layers because there are pebbles of granite in the bottom-most layer is an application of the Principle of ...

- A) Cross-cutting relationships.
- B) Superposition.
- C) Original Horizontality.
- D) Inclusions.

Answer: <https://biology-forums.com/index.php?topic=417903>

Question 961

Which is the most used method of flood control in the United States?

Answer: <https://biology-forums.com/index.php?topic=417057>

Question 962

What is the depth of the deepest diamond mine on Earth?

- A) 3.6 km
- B) 12 km
- C) 150 km
- D) 200 km

Answer: <https://biology-forums.com/index.php?topic=417993>

Question 963

Judge the following sentence according to the criteria given below Motion in the atmosphere is fundamentally different from motion in the mantle because the atmosphere moves by convective motion and the mantle moves by conductive motion.

- A) The assertion is incorrect but the reason is correct.
- B) The assertion and the reason are both correct, but the reason is invalid.
- C) Both the assertion and the reason are incorrect.
- D) The assertion is correct but the reason is incorrect.
- E) The assertion and the reason are both correct, and the reason is valid.

Answer: <https://biology-forums.com/index.php?topic=417981>

Question 964

True or False: The number of neutrons defines a particular element.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=416975>

Question 965

What evidence would lead geologists to conclude that granite underlying sedimentary rock is younger than the sedimentary rock?

- A) contact metamorphism between the granite and the deepest sedimentary bedding
- B) tilting of the sedimentary bedding
- C) pebbles of the granite included in the bedding of the sedimentary rock
- D) fragments of sedimentary rock included in the granite

Answer: <https://biology-forums.com/index.php?topic=417768>

Question 966

True or False: Natural water is pure H₂O.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417308>

Question 967

A seismic station records an earthquake that has a maximum surface wave amplitude of 20 mm and the s-wave arrives 40 seconds after the p-wave.

The Richter magnitude of this earthquake is

- A) 4.5.
- B) 5.
- C) 5.5.
- D) 6.

Answer: <https://biology-forums.com/index.php?topic=417521>

Question 968

According to the rock cycle, the process by which metamorphic rock becomes magma is called

- A) lithification.
- B) melting.
- C) precipitation.
- D) crystallization.

Answer: <https://biology-forums.com/index.php?topic=416993>

Question 969

Comets are comparable to

- A) Earth's core.
- B) dirty snowballs.
- C) mantle inclusions.
- D) igneous rocks.

Answer: <https://biology-forums.com/index.php?topic=418305>

Question 970

When is the earliest time that scientists believe that people may have migrated to the west coast of North America from Asia?

- A) 12,000 years ago
- B) 41,000 years ago
- C) 22,000 years ago
- D) 100,000 years ago

Answer: <https://biology-forums.com/index.php?topic=417435>

Question 971

The Mohorovicic discontinuity or Moho was discovered based on

- A) chemical differences between felsic and mafic rocks.
- B) a sharp change in seismic velocities.
- C) the S-wave shadow zone.
- D) mineralogical data from drill holes.

Answer: <https://biology-forums.com/index.php?topic=418185>

Question 972

Which gas is least abundant in magmas?

- A) water vapor
- B) methane
- C) sulfur compounds
- D) carbon dioxide

Answer: <https://biology-forums.com/index.php?topic=417146>

Question 973

How can we use sedimentary rocks to substantiate the moving of the continents through time?

Answer: <https://biology-forums.com/index.php?topic=417779>

Question 974

Typical ocean waves have periods of _____ seconds.

- A) 0.5 to 5
- B) 5 to 20
- C) 0.01 to 0.5
- D) 20 to 100

Answer: <https://biology-forums.com/index.php?topic=417735>

Question 975

The landform produced when a stream enters into a lake, reservoir or sea is called a

- A) gravel deposit.
- B) delta.
- C) sand bar.
- D) alluvial fan.

Answer: <https://biology-forums.com/index.php?topic=416976>

Question 976

Which is not a characteristic of glacial deposits?

- A) striations
- B) faceted faces and edges
- C) poorly sorted
- D) uniformity

Answer: <https://biology-forums.com/index.php?topic=417372>

Question 977

How do scientists measure heat flow?

- A) Scientists make pressure and temperature calculations based on depth, rock type, and each location on a tectonic plate.
- B) Scientists make temperature measurements in deeply drilled wells.
- C) Scientists make radioactive calculations based on rock samples emitted from volcanoes.
- D) Scientists make pressure and temperature measurements in mine shafts and caverns.

Answer: <https://biology-forums.com/index.php?topic=417127>

Question 978

Arched folds where limbs dip away from the hinge line are called

- A) reclines.
- B) synclines.
- C) inclines.
- D) anticlines.

Answer: <https://biology-forums.com/index.php?topic=417460>

Question 979

The mass of Earth is _____ kg.

- A) 6,001,000,000,000,000,000
- B) 6,001,000,000,000,000,000,000
- C) 6,001,000,000,000,000,000,000,000,000,000
- D) 6,001,000,000,000,000,000,000,000,000

Answer: <https://biology-forums.com/index.php?topic=418133>

Question 980

Mafic and ultramafic rocks contain the minerals

- A) plagioclase feldspar and olivine.
- B) amphibole and pyroxene.
- C) olivine and pyroxene.
- D) plagioclase feldspar and pyroxene.

Answer: <https://biology-forums.com/index.php?topic=417183>

Question 981

Which was not an incorrect assumption or estimated value made by geology professor John Joly to determine the 80 to 100 million year age of Earth based on the salinity of the oceans?

- A) The amount of ancient rock salt.
- B) The salinity of seawater.
- C) The volume of the ocean.
- D) The salt content of river water through time.

Answer: <https://biology-forums.com/index.php?topic=417913>

Question 982

The world record for the longest period without rainfall occurred in a

- A) polar desert.
- B) coastal desert.
- C) rain-shadow desert.
- D) sub-tropical desert.

Answer: <https://biology-forums.com/index.php?topic=417863>

Question 983

Which statement about compaction is false?

- A) Flakes of minerals are broken.
- B) Compaction may be caused by the weight of overlying sediment.
- C) Grains of sand are crushed into a smaller volume.
- D) Spaces between grains are decreased.

Answer: <https://biology-forums.com/index.php?topic=417368>

Question 984

What is the Mohs hardness of ice?

- A) 1.5
- B) 15.0
- C) 0.15
- D) 0.5

Answer: <https://biology-forums.com/index.php?topic=417357>

Question 985

How are past volcanic eruptions most commonly recorded in the geologic record?

- A) by deposits of ash and lava
- B) by changes in rock cracks
- C) by fossils of organisms that died during the eruptions
- D) by changes in the water table

Answer: <https://biology-forums.com/index.php?topic=418337>

Question 986

Warm moist air cools as it moves _____ in the atmosphere.

- A) west
- B) north
- C) higher
- D) east

E) south

Answer: <https://biology-forums.com/index.php?topic=417983>

Question 987

Which mineral does not dissolve readily in water?

- A) calcite
- B) gypsum
- C) halite
- D) mica

Answer: <https://biology-forums.com/index.php?topic=417190>

Question 988

Humans build walls perpendicular to the shoreline called

- A) berms.
- B) baymouth bars.
- C) spits.
- D) groins.

Answer: <https://biology-forums.com/index.php?topic=417631>

Question 989

A student breaks a piece of quartz and notices that it splits into irregular-shaped, jagged pieces, whereas calcite, when broken, will split into smooth, flat pieces. Which of the following properties of minerals is the student observing?

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

Answer: <https://biology-forums.com/index.php?topic=416797>

Question 990

What is seismic tomography?

- A) mapping the viscosity and convection of Earth's layers using seismic S-wave velocity data.
- B) mapping the conduction properties of different layers of Earth using seismic P-wave velocity data.
- C) mapping the temperatures and density of Earth using seismic P-wave velocity data.
- D) mapping the temperatures and density of Earth using seismic S-wave velocity data.

Answer: <https://biology-forums.com/index.php?topic=417155>

Question 991

What factor gives quartz its black appearance?

- A) exposure to sunlight
- B) burning it along with carbon
- C) water getting into the crystal structure
- D) radiation from within

Answer: <https://biology-forums.com/index.php?topic=416881>

Question 992

Which type of shock contains most of the energy released during a single earthquake?

- A) aftershock
- B) principal shock
- C) mainshock
- D) foreshock

Answer: <https://biology-forums.com/index.php?topic=417412>

Question 993

From which type of rock were Lake Michigan and Lake Huron carved?

- A) shale
- B) volcanic and sedimentary rock
- C) metamorphic rock

D) evaporite sedimentary rock

Answer: <https://biology-forums.com/index.php?topic=417420>

Question 994

Read carefully through the paragraph below, and decide which of the options is correct. The principle of isostasy explains variations in surface elevations in terms of the type and thickness of underlying crust. Low-density crust floats on denser, underlying mantle so that the temperature is everywhere the same at the base of any thick vertical column through the crust and upper mantle.

- A) The words " underlying crust " should be replaced by " underlying mantle".
- B) The word "temperature" should be replaced by " pressure " .
- C) The word " elevations " should be replaced by "pressures".
- D) The word " isostasy" should be replaced by "superposition".

Answer: <https://biology-forums.com/index.php?topic=417954>

Question 995

What happens as mantle rock rises?

- A) It expands at decreased pressure.
- B) It cools and contracts.
- C) It melts and continues to push upward.
- D) It cools and sinks again almost immediately.

Answer: <https://biology-forums.com/index.php?topic=417137>

Question 996

Which is not affected by the factors of moisture and temperature?

- A) chemical weathering
- B) type of vegetation
- C) physical weathering
- D) rock type

Answer: <https://biology-forums.com/index.php?topic=418029>

Question 997

A measure of earthquake size that corresponds to the energy released during the earthquake is called the

- A) focus.
- B) intensity.
- C) magnitude.
- D) epicenter.

Answer: <https://biology-forums.com/index.php?topic=417513>

Question 998

A student makes the following statement: "Soils are immature in Alaska mainly because there is little rain fall in the arctic." Evaluate this statement.

- A) It is false. The main factor is time.
- B) It is false. The main factor is temperature.
- C) It is true.
- D) It is false. The main factor is organic matter.

Answer: <https://biology-forums.com/index.php?topic=418091>

Question 999

The Precambrian Crust is

- A) plutonic and sedimentary rock.
- B) sedimentary, metamorphic, and plutonic rock.
- C) metamorphic and plutonic rock.
- D) metamorphic and sedimentary rock.

Answer: <https://biology-forums.com/index.php?topic=417911>

Question 1000

The texture of the igneous rock obsidian is called

- A) glassy.
- B) porphyritic.

- C) aphanitic.
- D) phaneritic.

Answer: <https://biology-forums.com/index.php?topic=417202>

Question 1001

Which sphere does not experience convection forces?

- A) the biosphere
- B) the hydrosphere
- C) the geosphere
- D) the atmosphere

Answer: <https://biology-forums.com/index.php?topic=418349>

Question 1002

Which is not a way that warm basal temperatures help glaciers slide?

- A) Water lubricates the surface between the ice and the underlying rock by reducing friction.
- B) Water is pressurized by the weight of the ice and lifts the glacier off the regolith below.
- C) Water recrystallizes in a denser form, resulting in more sliding.
- D) Water reduces cohesion with underlying rock or regolith.

Answer: <https://biology-forums.com/index.php?topic=417327>

Question 1003

James Hutton made all of the following observations that called into question the Neptunist hypothesis for rock formation, except

- A) most silicate minerals are practically insoluble in water.
- B) volcanoes were rare relatively recent phenomena.
- C) near contact with Primitive Rock, the Stratified Formation appeared modified.
- D) veins of Primitive Rock in Stratified Formations.

Answer: <https://biology-forums.com/index.php?topic=417041>

Question 1004

What factor allows for the formation of thick regolith?

- A) flooding
- B) landslides
- C) dense vegetation
- D) river erosion

Answer: <https://biology-forums.com/index.php?topic=418201>

Question 1005

Judge the following sentence according to the criteria given below Mountains continue to rise long after tectonic forces cease to thicken crust and drive uplift along faults because mountains result both from tectonic deformation and isostatic response to erosion.

- A) The assertion is incorrect but the reason is correct.
- B) Both the assertion and the reason are incorrect.
- C) The assertion and the reason are both correct, and the reason is valid.
- D) The assertion is correct but the reason is incorrect.
- E) The assertion and the reason are both correct, but the reason is invalid.

Answer: <https://biology-forums.com/index.php?topic=417979>

Question 1006

A fine-grained felsic rock is

- A) tonalite.
- B) andesite.
- C) basalt.
- D) rhyolite.

Answer: <https://biology-forums.com/index.php?topic=417152>

Question 1007

What is necessary for a mineral to cement rock grains together?

- A) The cement mineral must have the same type of bonding as the grains.

- B) The cement mineral must be dissolved in water.
C) The cement mineral and the grains must be similar in type.
D) The cement mineral must be a covalently-bonded mineral.

Answer: <https://biology-forums.com/index.php?topic=416914>

Question 1008

What is a seamount?

- A) an extinct underwater volcano
B) an underwater volcano
C) an underwater sedimentary rock pile
D) a wrinkle of crust formed by converging plates

Answer: <https://biology-forums.com/index.php?topic=417642>

Question 1009

The _____ is comprised of mostly metamorphic and igneous rocks.

- A) mantle
B) core (inner)
C) crust (continental)
D) core (outer)
E) crust (oceanic)

Answer: <https://biology-forums.com/index.php?topic=418187>

Question 1010

Where on the earth is olivine typically found?

Answer: <https://biology-forums.com/index.php?topic=417079>

Question 1011

Highly vesicular, intermediate-sized pyroclastic fragments of basalt or andesite are called

- A) lapilli.
B) pumice.
C) cinder.
D) ash.

Answer: <https://biology-forums.com/index.php?topic=417223>

Question 1012

A piece of gravel in a stream is least likely to experience which motion?

- A) whirling in an eddy
B) bouncing along the floor
C) rolling along the floor
D) sliding along the floor

Answer: <https://biology-forums.com/index.php?topic=416847>

Question 1013

How could there be fossils of marine organisms at the tops of mountains?

Answer: <https://biology-forums.com/index.php?topic=418003>

Question 1014

True or False: Dip-slip faults include normal, reverse and thrust faults.

- A) True
B) False

Answer: <https://biology-forums.com/index.php?topic=417495>

Question 1015

Highly vesicular, intermediate-sized pyroclastic fragments of dacite or rhyolite are called

- A) scoria.
B) lapilli.
C) pumice.

D) cinder.

Answer: <https://biology-forums.com/index.php?topic=417220>

Question 1016

A rock that is 20 million years old comes from the _____ Period.

- A) Tertiary
- B) Paleocene
- C) Miocene
- D) Paleogene

Answer: <https://biology-forums.com/index.php?topic=417967>

Question 1017

Because of intense leaching and oxidation, _____ soils are very infertile.

- A) forest
- B) desert
- C) grassland
- D) wetland
- E) rainforest

Answer: <https://biology-forums.com/index.php?topic=418141>

Question 1018

When trying to recognize if a rock is metamorphic, one factor that a geologist would not consider is

- A) foliation.
- B) bedding.
- C) presence of metamorphic minerals.
- D) recrystallization.

Answer: <https://biology-forums.com/index.php?topic=417666>

Question 1019

The world's largest bauxite deposits, in northern Australia, form in ancient _____ soils.

- A) wetland
- B) desert
- C) forest
- D) grassland
- E) rainforest

Answer: <https://biology-forums.com/index.php?topic=418144>

Question 1020

True or False: Almost all natural rocks are consolidated aggregates of minerals.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=416813>

Question 1021

What is crust delamination?

- A) layers of crust sinking into the mantle
- B) layers of crust sliding horizontally past each other
- C) layers of crust dissolving within other layers of crust
- D) layers of crust being eroded from the top

Answer: <https://biology-forums.com/index.php?topic=418249>

Question 1022

A gneiss containing kyanite and sillimanite most likely formed from a metamorphosed

- A) limestone.
- B) coal.
- C) mafic igneous rock.
- D) shale.

Answer: <https://biology-forums.com/index.php?topic=417731>

Question 1023

Which cause and effect statement concerning the last ice age is incorrect?

- A) The Bering land bridge, which allowed human migration, existed due to changed coastlines.
- B) Large lakes existed in the Northeast United States because of diminished evaporation.
- C) Cooler climate affected vegetation distribution.
- D) Continent outlines were different because of lower sea levels.

Answer: <https://biology-forums.com/index.php?topic=417426>

Question 1024

According to the rock cycle, precipitation turns dissolved elements into

- A) magma or igneous rock.
- B) transportation or deposition.
- C) igneous or metamorphic rock.
- D) sediment or sedimentary rock.

Answer: <https://biology-forums.com/index.php?topic=417013>

Question 1025

What does the distribution of the ice-age lakes in the Great Basin reveal about the climate 20,000 years ago?

Answer: <https://biology-forums.com/index.php?topic=417553>

Question 1026

Evaluate the following statement. "Convection is a method of heat transfer that requires movement and is not possible in the solid rock regions of Earth."

- A) This statement is false; convection occurs in all three states of matter.
- B) The statement is true; heat transfer occurs only by other methods in the solid rock regions of Earth.
- C) The statement is false; solid rock movement is possible at a slow rate.
- D) This statement is true; however, convection occurs in the pliable regions of Earth and causes earthquakes to move solid rock.

Answer: <https://biology-forums.com/index.php?topic=417098>

Question 1027

An anhydrous, very-high grade metamorphic rock composed of garnet and pyroxene is classified as a(n)

- A) anthracite.
- B) amphibolite.
- C) eclogite.
- D) quartzite.

Answer: <https://biology-forums.com/index.php?topic=417601>

Question 1028

Which type of convergent plate boundary raised the Tibetan Plateau?

- A) continental-oceanic
- B) oceanic-oceanic
- C) continental-continental
- D) ridge-hot spot

Answer: <https://biology-forums.com/index.php?topic=417751>

Question 1029

The processes depicted in the rock cycle also relate, in large part, to

- A) the Neptunist Doctrine.
- B) plate tectonics.
- C) mineralogy.
- D) rock color.

Answer: <https://biology-forums.com/index.php?topic=417059>

Question 1030

If a rock containing andalusite and sillimanite were to undergo an increase in pressure what must happen to temperature in order for that rock to

continue to have stable andalusite and sillimanite?

- A) temperature must stay the same
- B) temperature must increase
- C) temperature must decrease
- D) it is impossible for it to continue to have stable andalusite and sillimanite

Answer: <https://biology-forums.com/index.php?topic=417719>

Question 1031

Which of the following is not an evaporite mineral left by dried-up lakes?

- A) borax
- B) halite
- C) gypsum
- D) chlorite

Answer: <https://biology-forums.com/index.php?topic=416946>

Question 1032

In a normal fault, the footwall moves _____ relative to the hanging-wall.

- A) down
- B) up
- C) left
- D) right

Answer: <https://biology-forums.com/index.php?topic=417487>

Question 1033

Which factor contributes most to icebergs breaking away from glaciers?

- A) melting
- B) sedimentation
- C) wave action
- D) freezing

Answer: <https://biology-forums.com/index.php?topic=417393>

Question 1034

Which principle is a geologist applying when deciding that a fossil in a mud layer is older than a fossil in a sandstone layer above it?

- A) the principle of cross-cutting relationships
- B) the principle of superposition
- C) the principle of original horizontality
- D) the principle of inclusions

Answer: <https://biology-forums.com/index.php?topic=417757>

Question 1035

Identify the products in the following chemical reaction. $2 \text{KAlSi}_3\text{O}_8(\text{s}) + 11 \text{H}_2\text{O} \rightarrow 2 \text{K}^+(\text{aq}) + 2 \text{OH}^-(\text{aq}) + 4 \text{H}_4\text{SiO}_4(\text{aq}) + \text{Al}_2\text{Si}_2\text{O}_5(\text{OH})_4(\text{s})$

- A) potassium ion, hydroxyl ion, silicic acid, kaolinite
- B) potassium feldspar, water
- C) potassium feldspar, basic ion, silicate, kaolinite
- D) kaolinite ion, hydronic ion, salicic acid, caolinite

Answer: <https://biology-forums.com/index.php?topic=417343>

Question 1036

What does a radioactive-isotope aging test on a rock determine?

- A) the length of time the rock has existed in its location
- B) the age of the rock since metamorphism
- C) the age of the rock since sedimentation
- D) the date of formation of the rock-forming minerals

Answer: <https://biology-forums.com/index.php?topic=417864>

Question 1037

True or False: It is appropriate to criticize a scientific theory by saying "it's only a theory" because it is a tentative explanation that accounts for the

existing data.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418368>

Question 1038

Bent tree trunks on a slope are indicative of

- A) a slump.
- B) creep.
- C) a fall.
- D) an avalanche.

Answer: <https://biology-forums.com/index.php?topic=418279>

Question 1039

True or False: Geologists use a single tool to gather information about Earth.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418366>

Question 1040

_____ soils are common in the southwestern part of the United States.

- A) Wetland
- B) Desert
- C) Forest
- D) Rainforest
- E) Grassland

Answer: <https://biology-forums.com/index.php?topic=418126>

Question 1041

What metal is alloyed with tin to make bronze and with zinc to make brass?

- A) iron
- B) zinc
- C) lead
- D) copper

Answer: <https://biology-forums.com/index.php?topic=417014>

Question 1042

Which of the following is not an abundant radioactive element within Earth?

- A) curium
- B) uranium
- C) thorium
- D) potassium

Answer: <https://biology-forums.com/index.php?topic=418098>

Question 1043

During the last 160 million years Earth's magnetic field has reversed _____ of times

- A) millions
- B) tens
- C) hundreds
- D) thousands

Answer: <https://biology-forums.com/index.php?topic=417280>

Question 1044

Which of the following pairs of index minerals do not overlap in metamorphic grade?

- A) staurolite and kyanite
- B) biotite and garnet
- C) chlorite and pyroxene

D) amphibole and sillimanite

Answer: <https://biology-forums.com/index.php?topic=417725>

Question 1045

When a new theory is proposed,

- A) scientists can utilize supernatural phenomena to test it.
- B) it will not undergo further testing.
- C) it will undergo further testing in new studies.
- D) scientists consider it a tentative explanation.

Answer: <https://biology-forums.com/index.php?topic=418331>

Question 1046

What would happen if there were only three positive ions available to bond with a silica tetrahedron?

Answer: <https://biology-forums.com/index.php?topic=417073>

Question 1047

The average radius of Earth is _____ km.

- A) 6371
- B) 6378
- C) 6357
- D) 6350

Answer: <https://biology-forums.com/index.php?topic=418131>

Question 1048

During a flood, which factor does not decrease further away from the channel during a flood?

- A) grain size of sediment deposited
- B) height of the levee formed
- C) amount of bedload deposited
- D) amount of suspended load deposited

Answer: <https://biology-forums.com/index.php?topic=416892>

Question 1049

Which planets contain mostly hydrogen atmospheres?

- A) Mars, Jupiter, and Saturn
- B) Uranus, Neptune, and Pluto
- C) Jupiter, Saturn, and Uranus
- D) Mercury, Venus, and Mars

Answer: <https://biology-forums.com/index.php?topic=418189>

Question 1050

True or False: Chert, composed mainly of quartz, forms only by inorganic processes.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417446>

Question 1051

Which statement about the solar nebula is false?

- A) It will eventually become a Sun.
- B) It is formed as gas and dust spin faster and faster.
- C) It requires the Sun's energy to spin.
- D) It will form stars and planets.

Answer: <https://biology-forums.com/index.php?topic=418197>

Question 1052

Which feature is not usually caused by convergent boundaries?

- A) rift valleys
- B) deep-sea trenches

- C) mountains
- D) volcanoes

Answer: <https://biology-forums.com/index.php?topic=417599>

Question 1053

Subtropical deserts form close to _____ degrees north or south latitude.

- A) 0
- B) 15
- C) 30
- D) 45
- E) 60

Answer: <https://biology-forums.com/index.php?topic=418015>

Question 1054

Crystal size can be used to help distinguish

- A) regional from contact metamorphic rocks.
- B) volcanic from plutonic igneous rocks.
- C) clastic from chemical sedimentary rocks.
- D) hydrothermal from chemical rocks.

Answer: <https://biology-forums.com/index.php?topic=416897>

Question 1055

Which property most inhibits convection?

- A) density
- B) rigidity
- C) elasticity
- D) viscosity

Answer: <https://biology-forums.com/index.php?topic=417109>

Question 1056

Continental crust consists of mostly

- A) quartz-rich sandstones.
- B) basalt dikes and lava flows.
- C) olivine-rich peridotite.
- D) quartz-rich plutonic and metamorphic rocks.

Answer: <https://biology-forums.com/index.php?topic=418135>

Question 1057

What information can be concluded by the rock name, staurolite-garnet-muscovite schist?

- A) The rock is foliated, has large mica grains, and contains more muscovite than staurolite or garnet.
- B) The rock is nonfoliated and contains more staurolite than garnet or muscovite.
- C) The rock is nonfoliated, has undergone low-grade metamorphism, and contains the three minerals listed in dominant quantities.
- D) The rock is foliated and contains staurolite, garnet, and muscovite in approximately equal quantities.

Answer: <https://biology-forums.com/index.php?topic=417691>

Question 1058

A rock that is 50 million years old comes from the _____ Period.

- A) Paleogene
- B) Cenozoic
- C) Phanerozoic
- D) Eocene

Answer: <https://biology-forums.com/index.php?topic=417975>

Question 1059

What is defined here?

"A larger cluster of irregularly shaped, rocky planetesimals form an orbiting belt between Mars and Jupiter."

- A) meteorites

- B) comets
- C) meteors
- D) asteroids

Answer: <https://biology-forums.com/index.php?topic=418223>

Question 1060

True or False: A genetic classification scheme requires observation and interpretation of those observations.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417022>

Question 1061

True or False: Determination of the origin of continental crust is more complicated than determining the origin of oceanic crust.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418314>

Question 1062

In the fifth century B.C., Greek observers established that Earth was nearly _____ in shape.

- A) flat
- B) spherical
- C) rectangular
- D) elliptical

Answer: <https://biology-forums.com/index.php?topic=418118>

Question 1063

True or False: The only way to study the composition and mineralogy of oceanic crustal rocks is by drilling or dredging.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418110>

Question 1064

The landmass that is now the eastern United States used to face

- A) southwest.
- B) northeast.
- C) south.
- D) north.

Answer: <https://biology-forums.com/index.php?topic=417677>

Question 1065

TEM images do not form well in crystals with

- A) too many closely spaced electrons.
- B) large atoms.
- C) small atoms.
- D) a random arrangement of atoms.

Answer: <https://biology-forums.com/index.php?topic=416826>

Question 1066

Which type of metamorphism occurs exclusively at lower pressures?

- A) Regional metamorphism occurs exclusively at lower pressures.
- B) Contact Metamorphism occurs exclusively at lower pressures.
- C) All three types of metamorphism occur exclusively at lower pressures.
- D) Hydrothermal Metamorphism occurs exclusively at lower pressures.

Answer: <https://biology-forums.com/index.php?topic=417737>

Question 1067

A fine-grained intermediate rock is

- A) peridotite.
- B) tonalite.
- C) andesite.
- D) dacite.

Answer: <https://biology-forums.com/index.php?topic=417154>

Question 1068

The mineral property determined by the resistance of a mineral's surface to scratching is called

- A) specific gravity.
- B) streak.
- C) hardness.
- D) cleavage.

Answer: <https://biology-forums.com/index.php?topic=416950>

Question 1069

True or False: Most volcanoes are found at or near divergent and convergent plate boundaries.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417247>

Question 1070

Choose the option that puts the soil types in order from those that form in areas with the most moisture to those that form in areas with the least moisture.

- A) Alfisols, Vertisols, Gelisols
- B) Histosols, Mollisols, Aridosols
- C) Aridosols, Alfisols, Spodosols
- D) Ultisols, Aridosols, Entisols

Answer: <https://biology-forums.com/index.php?topic=418087>

Question 1071

A place where the hinge line plunges downward into the ground and upward into the air is

- A) a joint.
- B) a syncline.
- C) a plunging fold.
- D) an anticline.

Answer: <https://biology-forums.com/index.php?topic=417326>

Question 1072

What is the most common way to name a geologic period?

- A) by the name of the metamorphic processes that were occurring at that time
- B) by the name of the place where rocks of that period were first described
- C) by the name of the tectonic continent that existed at that time
- D) by the name of the scientist who first defined that period

Answer: <https://biology-forums.com/index.php?topic=417795>

Question 1073

How do geologists know that diamond is the hardest mineral?

- A) They conduct a scratch test.
- B) They conduct a crush test.
- C) They conduct a streak test.
- D) They conduct molecular analyses.

Answer: <https://biology-forums.com/index.php?topic=416809>

Question 1074

This mineral has cleavage in six directions.

- A) calcite
- B) galena

- C) sphalerite
- D) halite

Answer: <https://biology-forums.com/index.php?topic=417043>

Question 1075

If you superimpose the plate boundary illustrated in Figure 12.1-6 on the Atlantic Ocean Seafloor, what does this mean for the American continents relative to Africa and Europe?

Answer: <https://biology-forums.com/index.php?topic=417767>

Question 1076

How could the Himalayan Mountains be getting taller?

Answer: <https://biology-forums.com/index.php?topic=418017>

Question 1077

Name the type of volcano described here:

"Thick, steep, lava-flow domes form these young volcanoes made of dacitic and rhyolitic rock."

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

Answer: <https://biology-forums.com/index.php?topic=417236>

Question 1078

The texture of an igneous rock consisting of coarse-grained crystals surrounded by very small crystals is called

- A) aphanitic.
- B) glassy.
- C) phaneritic.
- D) porphyritic.

Answer: <https://biology-forums.com/index.php?topic=417208>

Question 1079

What is the main frame of reference for GPS measurements?

- A) the absolute value of Earth's core
- B) rock compositions
- C) satellite locations
- D) Earth's magnetic pole

Answer: <https://biology-forums.com/index.php?topic=417651>

Question 1080

Spring tides occur when

- A) Earth, the Moon, and the Sun are all aligned.
- B) the Moon and the Sun exert forces on Earth at a 60° angle.
- C) the Moon and the Sun exert forces on Earth at a 45° angle.
- D) the Moon's gravitational attraction is perpendicular to the Sun.

Answer: <https://biology-forums.com/index.php?topic=417647>

Question 1081

Which of the following factors is most influential in causing convection in the outer core?

- A) Heating causes expansion of fluids.
- B) Compositional differences create a difference in density.
- C) The outer core has a low viscosity, approximately equal to that of water at room temperature.
- D) The outer core has a high heat conductivity.

Answer: <https://biology-forums.com/index.php?topic=417122>

Question 1082

A rock that is 2,000 million years old comes from the _____ Era.

- A) Paleozoic

- B) Proterozoic
- C) Phanerozoic
- D) Paleoproterozoic

Answer: <https://biology-forums.com/index.php?topic=417987>

Question 1083

What is the general direction of the movement of California compared to the center of the continent?

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

Answer: <https://biology-forums.com/index.php?topic=417658>

Question 1084

The location on Earth's surface, directly above the focus, is called the

- A) tsunami.
- B) surface focus.
- C) epicenter.
- D) seismic center.

Answer: <https://biology-forums.com/index.php?topic=418155>

Question 1085

Which of the following is not a component of soil?

- A) wind blown dust
- B) weathered rock residue
- C) sedimentary rocks
- D) decaying organic matter

Answer: <https://biology-forums.com/index.php?topic=417359>

Question 1086

Which two factors act together to cause changes in the Earth-Sun distance at the seasonal solstices and equinoxes?

- A) the eccentricity and the precession
- B) the precession and the Milankovitch cycle
- C) the obliquity and the eccentricity
- D) the Milankovitch cycle and the obliquity

Answer: <https://biology-forums.com/index.php?topic=417450>

Question 1087

What evidence shows that Yellowstone is a hot spot?

- A) extinct volcanoes
- B) a geyser
- C) metamorphic rock banding
- D) basalt flows

Answer: <https://biology-forums.com/index.php?topic=417637>

Question 1088

What triggered the debris avalanche that caused the destruction of Yungay, Peru?

- A) an earthquake
- B) rainfall
- C) snowmelt
- D) volcanic activity

Answer: <https://biology-forums.com/index.php?topic=418202>

Question 1089

Choose the option that orders the measurement of time from shortest to longest.

- A) era, epoch, eon, period
- B) epoch, period, era, eon

- C) period, epoch, era, eon
- D) epoch, period, eon, era

Answer: <https://biology-forums.com/index.php?topic=417792>

Question 1090

Which option describes a possible oil and gas trap?

- A) an anticline made entirely of sandstone with an organic earth covering
- B) a syncline with a coal layer at the bottom, a sandstone middle, and a shale layer on top
- C) a reverse fault with a sandstone layer and a shale layer underneath
- D) an anticline with a sandstone layer and a shale layer on top

Answer: <https://biology-forums.com/index.php?topic=417352>

Question 1091

Rocks that lack layering are called

- A) massive.
- B) banded.
- C) mantled.
- D) covered.

Answer: <https://biology-forums.com/index.php?topic=417056>

Question 1092

Which factor determines whether calcite or aragonite will form?

- A) the atoms present
- B) temperature
- C) pressure
- D) time

Answer: <https://biology-forums.com/index.php?topic=416869>

Question 1093

Most earthquake destruction results from

- A) primary (P) waves.
- B) surface waves.
- C) secondary (S) waves.
- D) acoustic waves.

Answer: <https://biology-forums.com/index.php?topic=418171>

Question 1094

True or False: The most distinctive chemical and physical boundary within Earth is between the mantle and core.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418311>

Question 1095

Why do we have to calculate the mantle's Rayleigh number to complete this calculation?

Answer: <https://biology-forums.com/index.php?topic=417307>

Question 1096

What is the chemical relationship between rock and the sediments rock is weathered into?

- A) They have the same chemical composition.
- B) The sediments consist of all the same minerals, divided into separate flakes.
- C) Most of the same minerals are present in both.
- D) Most of the rock minerals dissolve; only a few harder minerals form sediment.

Answer: <https://biology-forums.com/index.php?topic=417332>

Question 1097

What did Glatzmaier and Roberts' model suggest as a reason for magnetic reversal?

- A) alterations to forces on Earth by other planets

- B) metamorphism of rocks in the crust
C) alterations to forces on Earth by changes in the Sun
D) interactions between magnetic fields in the inner and outer cores

Answer: <https://biology-forums.com/index.php?topic=417226>

Question 1098

Which is not a common sedimentary cementing material?

- A) basalt
B) calcite
C) hematite
D) quartz

Answer: <https://biology-forums.com/index.php?topic=417377>

Question 1099

How could the mantle be too thin to prevent convection?

Answer: <https://biology-forums.com/index.php?topic=417310>

Question 1100

What is the approximate age and depth of the Grand Canyon?

- A) 1.1 billion years old and 1800 m deep
B) 9 million years old and 4000 m deep
C) 1.7 billion years old and 1700 m deep
D) 4 million years old and 7000 m deep

Answer: <https://biology-forums.com/index.php?topic=418320>

Question 1101

A rock that is 375 million years old comes from the _____ Period.

- A) Devonian
B) Tertiary
C) Permian
D) Cretaceous

Answer: <https://biology-forums.com/index.php?topic=417980>

Question 1102

True or False: All natural geologic disasters are expressions of the dynamic nature of the planet.

- A) True
B) False

Answer: <https://biology-forums.com/index.php?topic=418360>

Question 1103

True or False: Gaps in the rock record are of no importance to geologists because no rocks exist from the gap to be studied.

- A) True
B) False

Answer: <https://biology-forums.com/index.php?topic=417909>

Question 1104

_____ soils in New England form in cool, wet climates have distinct E horizons.

- A) Desert
B) Wetland
C) Rainforest
D) Forest
E) Grassland

Answer: <https://biology-forums.com/index.php?topic=418134>

Question 1105

Spring dust has its highest concentrations in the American

- A) southeast.

- B) northeast.
- C) northwest.
- D) southwest.

Answer: <https://biology-forums.com/index.php?topic=417940>

Question 1106

Which event does not occur as snow metamorphoses into ice?

- A) Ice molecules move past each other.
- B) The ice becomes nonporous.
- C) Grains become more pointed.
- D) Grains pack more densely.

Answer: <https://biology-forums.com/index.php?topic=417315>

Question 1107

A synonym of plutonic is

- A) intrusive.
- B) magma.
- C) lava.
- D) extrusive.

Answer: <https://biology-forums.com/index.php?topic=417121>

Question 1108

Which resource below is fundamental to all processes on earth?

- A) silicon
- B) iron
- C) trees
- D) water

Answer: <https://biology-forums.com/index.php?topic=418326>

Question 1109

"Glaciers have no defined cleavage planes, but instead flow plastically." Evaluate this statement.

- A) This statement is partially true. The flow of glaciers is very slow and more similar to gravel than to plastic.
- B) This statement is true, but it only applies to the upper part of a glacier.
- C) This statement is false. Glaciers do flow plastically, but also have well-defined cleavage planes similar to mica.
- D) This statement is false. Ice has cleavage similar to the mineral mica, and ice behaves like mica would under the same pressure.

Answer: <https://biology-forums.com/index.php?topic=417321>

Question 1110

True or False: Earth temperature decreases progressively with increasing depth.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417069>

Question 1111

The town of Thistle in Utah was submerged by a lake formed by

- A) a dam formed by a lava flow from a volcano.
- B) excessive rainfall.
- C) a human-made dam.
- D) a dam formed by a landslide.

Answer: <https://biology-forums.com/index.php?topic=416940>

Question 1112

Judge the following sentence according to the criteria given below. There is a link between mining and faults because minerals precipitate from water percolating along faults.

- A) The assertion and the reason are both correct, but the reason is invalid.
- B) The assertion is incorrect but the reason is correct.
- C) Both the assertion and the reason are incorrect.

- D) The assertion is correct but the reason is incorrect.
E) The assertion and the reason are both correct, and the reason is valid.

Answer: <https://biology-forums.com/index.php?topic=417490>

Question 1113

Plates slide past from one another at

- A) a transform boundary.
B) a convergent boundary.
C) a divergent boundary.
D) neither a divergent, convergent or transform boundary.

Answer: <https://biology-forums.com/index.php?topic=416792>

Question 1114

Read carefully through the following sentence, and decide which of the options is correct. Factors determining slope stability are the steepness of the slope, the composition and texture of material, the abundance of water, the presence and orientation of volcanic features in the rock, vegetation, and the amount of weathering.

- A) The word "slope" should be replaced by "deviation".
B) The word "vegetation" should be replaced by "logging".
C) The word "volcanic" should be replaced by "planar".
D) The word "water" should be replaced by "clay".

Answer: <https://biology-forums.com/index.php?topic=418295>

Question 1115

What is the definition of heat flow as it relates to Earth's mantle?

- A) the gradient amount of heat per kilometer from the core to the crust
B) the amount of heat that moves along layers
C) the gradient flow of heat from the center of each tectonic plate to its boundary
D) the amount of heat escaping Earth's surface

Answer: <https://biology-forums.com/index.php?topic=417125>

Question 1116

Direct laboratory experimentation is often not possible in geological studies for all of the following reasons except that

- A) Earth conditions can be easily controlled and duplicated.
B) the experimenter must outlive the experiment.
C) the number of variables is typically large.
D) the rates of many Earth processes are very slow.

Answer: <https://biology-forums.com/index.php?topic=416788>

Question 1117

Why would we want to know the height of water in a river bed?

Answer: <https://biology-forums.com/index.php?topic=417021>

Question 1118

According to the rock cycle, weathering/erosion turns rock into

- A) sedimentary rock.
B) fragments.
C) metamorphic rock.
D) igneous rock.

Answer: <https://biology-forums.com/index.php?topic=417016>

Question 1119

What is the primary problem with computer models of tectonic action?

- A) They assume viscous motion.
B) They use an inadequate model of Earth's changing magnetism.
C) Scientists have not found a reasonable model for upwelling plumes and superplumes.
D) They lack the depth of the Earth's mantle.

Answer: <https://biology-forums.com/index.php?topic=417663>

Question 1120

A landform produced by a sudden deposition of sediment where a stream enters a lake, reservoir, or sea is called

- A) an alluvial fan.
- B) a delta.
- C) a bar.
- D) a distributary channel.

Answer: <https://biology-forums.com/index.php?topic=416859>

Question 1121

Which of the following glacial features is depositional?

- A) hanging valley
- B) pointed peak
- C) knife-edged ridge
- D) moraine

Answer: <https://biology-forums.com/index.php?topic=417396>

Question 1122

Judge the following sentence according to the criteria given below Oxygen 18 and Oxygen 16 are called stable isotopes because they are the stable products of radioactive decay.

- A) The assertion is incorrect but the reason is correct.
- B) Both the assertion and the reason are incorrect.
- C) The assertion is correct but the reason is incorrect.
- D) The assertion and the reason are both correct, and the reason is valid.
- E) The assertion and the reason are both correct, but the reason is invalid.

Answer: <https://biology-forums.com/index.php?topic=417480>

Question 1123

When did the science community piece together the absolute ages of rocks?

- A) in the first half of the twentieth century
- B) in the eighteenth century
- C) in the nineteenth century
- D) in the last half of the twentieth century

Answer: <https://biology-forums.com/index.php?topic=417802>

Question 1124

Which is not a cause of rising and falling shorelines?

- A) creation of seafloor at mid-ocean ridges
- B) local uplift of crust
- C) earthquakes along the San Andreas fault
- D) melting of continental glacial ice

Answer: <https://biology-forums.com/index.php?topic=417657>

Question 1125

When Carbon 14 decays, the product is

- A) Carbon 13.
- B) Carbon 12.
- C) Nitrogen 14.
- D) Aluminum 13.

Answer: <https://biology-forums.com/index.php?topic=417847>

Question 1126

What caused the giant tsunami in the Indian Ocean in 2004?

Answer: <https://biology-forums.com/index.php?topic=417539>

Question 1127

How did scientists calculate the rate of uplift of the Andes?

- A) using a fossil of coral from a high rock
- B) using tectonic data and knowledge of ice ages
- C) by radio-dating uplifted metamorphic rock
- D) by radio-dating uplifted sedimentary rock

Answer: <https://biology-forums.com/index.php?topic=417896>

Question 1128

Which of the following events does not commonly occur at a delta?

- A) Erosion deepens the delta into a bay.
- B) Sea level rises higher than sedimentation builds all parts of the delta.
- C) Sediment compacts over time.
- D) Sediment isostatically depresses the crust.

Answer: <https://biology-forums.com/index.php?topic=417706>

Question 1129

An instrument designed to detect, amplify, and record surface and body wave motion is called a

- A) seismologist.
- B) seismogram.
- C) seismometer.
- D) seismic wave.

Answer: <https://biology-forums.com/index.php?topic=418112>

Question 1130

Irregularities in coastal outlines are least affected by

- A) bedding planes.
- B) joints.
- C) age of rock.
- D) rock strength.

Answer: <https://biology-forums.com/index.php?topic=417575>

Question 1131

The Precambrian basement rocks of the Upper Peninsula of Michigan became part of the North American continent

- A) more than 2.5 billion years ago.
- B) about 1.1 billion years ago.
- C) 1.9 billion years ago.
- D) 1.7 to 1.8 billion years ago.
- E) 1.8 to 1.9 billion years ago.

Answer: <https://biology-forums.com/index.php?topic=417946>

Question 1132

Which is not a change that waves experience as the sea becomes shallower?

- A) crests become narrower than troughs
- B) wave velocity increases
- C) wave height increases
- D) wavelength decreases

Answer: <https://biology-forums.com/index.php?topic=417590>

Question 1133

The continental crust is _____ the oceanic crust.

- A) thicker than
- B) thinner than
- C) identical to
- D) located below

Answer: <https://biology-forums.com/index.php?topic=418353>

Question 1134

The highest elevations on barrier islands are often

- A) uplifted metamorphic rock.
- B) extinct volcanos.
- C) sand dunes.
- D) sea stacks.

Answer: <https://biology-forums.com/index.php?topic=417639>

Question 1135

What does the principle of isostasy explain?

- A) variations in elevation due to type and thickness of underlying crust
- B) variations in elevation due to ice pressure and weight on top of the crust
- C) variations in elevation due to rock age, sedimentation patterns, and oceanic history
- D) variations in elevation due to tectonic forces

Answer: <https://biology-forums.com/index.php?topic=417803>

Question 1136

Scientists have estimated the density of Earth

- A) by averaging the density of several hundred crust samples.
- B) by measuring the wobbly rotation of Earth on its axis.
- C) by taking a drilling core and averaging the density of those rocks over the depth.
- D) by calculating its interaction with nearby celestial objects.

Answer: <https://biology-forums.com/index.php?topic=418031>

Question 1137

Which type of soil is likely to contain metal ores in large enough amounts to mine?

- A) grassland soils
- B) desert soils
- C) rainforest soils
- D) wetland soils

Answer: <https://biology-forums.com/index.php?topic=418089>

Question 1138

Coarse-grained regolith where 20 to 80 percent of the fragments are greater than 2 millimeters in size is called

- A) debris.
- B) rock.
- C) earth.
- D) soil.

Answer: <https://biology-forums.com/index.php?topic=418255>

Question 1139

What are polymorphs?

- A) minerals that have variable chemical compositions but appear to be identical
- B) minerals that have identical chemical compositions but different arrangements of atoms
- C) minerals that can take different forms
- D) minerals that can appear in a variety of different colors

Answer: <https://biology-forums.com/index.php?topic=416854>

Question 1140

A clastic sedimentary rock composed of pebbles (40%), cobbles (25%), boulders (10%) and sand (25%; even amounts of quartz and feldspar) would be called a(n)

- A) sandy conglomerate.
- B) conglomeratic pebblestone.
- C) arkose.
- D) sandy pebblestone.

Answer: <https://biology-forums.com/index.php?topic=417422>

Question 1141

What is declination?

- A) the horizontal angle between the magnetic and geographic north poles
- B) the angle of decrease of the axis of rotation in relation to latitude
- C) the angle of increase of the axis of magnetism in relation to latitude
- D) the vertical angle between the field-force line and Earth's surface

Answer: <https://biology-forums.com/index.php?topic=417165>

Question 1142

A coarse grained, shiny foliated metamorphic rock that exhibits well developed mineral cleavage is classified as a

- A) schist.
- B) phyllite.
- C) hornfels.
- D) slate.

Answer: <https://biology-forums.com/index.php?topic=417577>

Question 1143

True or False: Principles, or laws, simply describe how humans observe nature to behave.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418367>

Question 1144

A coarse-grained weakly foliated metamorphic rock composed of plagioclase feldspar and hornblende (an amphibole) is classified as a(n)

- A) amphibolite.
- B) hornfels.
- C) greenstone.
- D) marble.

Answer: <https://biology-forums.com/index.php?topic=417584>

Question 1145

_____ would not increase the intensity of a flash flood?

- A) Steep slopes
- B) A narrow bedrock canyon
- C) A broad alluvial fan
- D) Paved ground

Answer: <https://biology-forums.com/index.php?topic=416895>

Question 1146

Which of the following present-day observations of crustal movement in formerly ice covered regions of North America and Eurasia support the flexural isostasy hypothesis?

- A) Originally depressed areas are sinking and the bulges are rising.
- B) Originally depressed areas are still rising and the bulges are stationary.
- C) Originally depressed areas rose to their original position by the time the ice finished melting.
- D) Originally depressed areas are still rising and the bulges are sinking.

Answer: <https://biology-forums.com/index.php?topic=417931>

Question 1147

What element, when added to quartz, causes the purple color of amethyst?

- A) cobalt
- B) iron
- C) titanium
- D) nickel

Answer: <https://biology-forums.com/index.php?topic=416815>

Question 1148

Which statement about solar wind is false?

- A) Solar wind is caused by heat in the Sun.
- B) Our Sun's solar winds are less intense now than in its early history.

- C) Solar wind is created by fast-moving protons and electrons.
D) Solar wind includes periodic blasts of air.

Answer: <https://biology-forums.com/index.php?topic=418213>

Question 1149

A _____ is described as the elapsed time between the passage of successive wave troughs past a stationary point.

- A) wavelength
B) wave height
C) wave drop
D) wave period

Answer: <https://biology-forums.com/index.php?topic=417582>

Question 1150

The type of gravity-driven, downslope movement where the material moves very, very quickly as a high-viscosity fluid is called

- A) fall.
B) slump.
C) avalanche.
D) creep.
E) slide.

Answer: <https://biology-forums.com/index.php?topic=418262>

Question 1151

What occurred to magnetic field strength in Glatzmaier and Roberts' model during polarity reversals?

- A) it stayed the same
B) it disappeared
C) it increased
D) it decreased

Answer: <https://biology-forums.com/index.php?topic=417219>

Question 1152

What factor increases the hardness of ionic substances?

- A) an increased charge on the ions
B) multiple bonds
C) a decreased charge on the ions
D) the presence of more free electrons

Answer: <https://biology-forums.com/index.php?topic=416887>

Question 1153

How was Great Salt Lake formed?

Answer: <https://biology-forums.com/index.php?topic=417546>

Question 1154

A swimmer caught in a rip current should

- A) swim out to sea to escape it.
B) swim along the shore to escape it.
C) float along in the current until it loses energy and is easier to escape.
D) swim straight back to shore to escape it.

Answer: <https://biology-forums.com/index.php?topic=417600>

Question 1155

Which parcel of air has the lowest pressure?

- A) cold dry air
B) cold moist air
C) warm moist air
D) warm dry air

Answer: <https://biology-forums.com/index.php?topic=417988>

Question 1156

Which type of heat transfer occurs without any movement of matter?

- A) conduction and radiation
- B) convection and radiation
- C) transference and conduction
- D) transduction and radiation

Answer: <https://biology-forums.com/index.php?topic=417092>

Question 1157

P- and S-wave shadow zones begin at locations that are 98 degrees around the globe in all directions from an epicenter which corresponds to a depth near the boundary between

- A) mantle and crust.
- B) core and crust.
- C) mantle and core.
- D) oceanic crust and continental crust.

Answer: <https://biology-forums.com/index.php?topic=418177>

Question 1158

If a rock containing kyanite and sillimanite were to undergo an increase in pressure what must happen to temperature in order for that rock to continue to have stable kyanite and sillimanite?

- A) temperature must increase
- B) it is impossible for it to continue to have stable kyanite and sillimanite
- C) temperature must decrease
- D) temperature must stay the same

Answer: <https://biology-forums.com/index.php?topic=417710>

Question 1159

_____ is faster than ground water flow.

- A) Stream flow
- B) River valley erosion
- C) The rise of mountains
- D) Sediment accumulation

Answer: <https://biology-forums.com/index.php?topic=418357>

Question 1160

The reaction of calcite with water is an example of

- A) exfoliation.
- B) oxidation.
- C) dissolution.
- D) hydrolysis.

Answer: <https://biology-forums.com/index.php?topic=417299>

Question 1161

A student makes the conclusion, "When a lot of precipitation falls, streams get deeper as a result." Evaluate this statement.

- A) The statement is usually true, unless there is a landslide in the stream.
- B) The statement is true only when the precipitation does not bring a lot of new sediment into the stream.
- C) The statement is completely true.
- D) The statement is false.

Answer: <https://biology-forums.com/index.php?topic=416931>

Question 1162

Read carefully through the paragraph below, and decide which of the options is correct. A shallow sea existed in North America approximately 425 million years ago. This ancient geography was interpreted based on the sedimentary rocks in the region of that age. Mudstone, limely shale and shaley sandstone mark the location of the shallow sea. Sandstone occurred near the ancient shoreline and conglomerate occurred near the source area. Clasts of volcanic and plutonic rocks in the conglomerate imply the uplift and erosion of igneous rocks of nearby mountains.

- A) The word " mudstone" should be replaced by " limestone".

- B) The word "shallow" should be replaced by "deep".
- C) The word "shale" should be replaced by "sandstone".
- D) The word "igneous" should be replaced by "metamorphic".

Answer: <https://biology-forums.com/index.php?topic=417520>

Question 1163

Which does not occur as a result of metamorphic change?

- A) Fluid intrusions wash away minerals.
- B) New minerals form and old ones disappear.
- C) Rocks break apart and crumble.
- D) Rock texture is altered by changes in orientation of minerals.

Answer: <https://biology-forums.com/index.php?topic=417625>

Question 1164

How many people worldwide live on land that is less than one meter above sea level?

- A) 50 million
- B) 100 million
- C) 900 million
- D) 1 billion

Answer: <https://biology-forums.com/index.php?topic=417676>

Question 1165

A fine grained foliated metamorphic rock that exhibits a silky sheen is classified as a

- A) schist.
- B) slate.
- C) phyllite.
- D) hornfels.

Answer: <https://biology-forums.com/index.php?topic=417574>

Question 1166

Judge the following sentences according to the criteria given below. On average, heat flow through the continents is greater than heat flow through the ocean crust because continental crust is much thicker than oceanic crust.

- A) The assertion and the reason are both correct, and the reason is valid.
- B) The assertion is incorrect but the reason is correct.
- C) Both the assertion and the reason are incorrect.
- D) The assertion is correct but the reason is incorrect.
- E) The assertion and the reason are both correct, but the reason is invalid.

Answer: <https://biology-forums.com/index.php?topic=417254>

Question 1167

The interiors of glaciers are made up of ice that is

- A) hard and porous.
- B) hard and compact.
- C) soft and porous.
- D) soft and compact.

Answer: <https://biology-forums.com/index.php?topic=417499>

Question 1168

A mountaintop is made of limestone overlying a layer of basalt. What would be the origin of this mountain?

- A) The basalt would have formed under metamorphism by the pressure of the limestone that formed by sedimentation on top of it.
- B) The limestone would have formed by sediment in a river valley where the river was flowing over basalt.
- C) The limestone would have formed by volcanic outflow and the basalt would have been part of the volcano.
- D) The limestone would have formed at the bottom of an ocean and the basalt would have been part of the oceanic crust.

Answer: <https://biology-forums.com/index.php?topic=418016>

Question 1169

How does the structure of a nonconformity show geologists that there was a lapse in the record of time?

- A) Rock must have eroded away because the metamorphic or igneous rocks underneath were formed at great depth, not near the surface.
- B) Carbon-dating radioactive tests on the rocks shows that a lapse in time occurred.
- C) The coal seam between layers must have taken millions of years to form.
- D) The fossil record shows missing specimens.

Answer: <https://biology-forums.com/index.php?topic=417822>

Question 1170

Primary (P) waves have all of the following characteristics except

- A) can't pass through gases and liquids.
- B) causes alternating squeezing and stretching of the material as the wave passes.
- C) body wave.
- D) arrives first at seismic stations.

Answer: <https://biology-forums.com/index.php?topic=418142>

Question 1171

Choose the option that puts the following steps in the correct sequence. 1. An electric sensor records the signal's travel time. 2. A transducer changes the signal into a thump on the rock. 3. An electrical signal is delivered. 4. The wave travels through the rock.

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

Answer: <https://biology-forums.com/index.php?topic=418068>

Question 1172

Igneous rocks can be distinguished from chemical sedimentary rocks based on

- A) texture.
- B) grain size.
- C) color.
- D) composition.

Answer: <https://biology-forums.com/index.php?topic=416900>

Question 1173

Judge the following sentence according to the criteria given below: The temperature and moisture effects on air density commonly work together, because warm air can hold more moisture than cold air.

- A) The assertion and the reason are both correct, but the reason is invalid.
- B) The assertion is incorrect but the reason is correct.
- C) The assertion and the reason are both correct, and the reason is valid.
- D) Both the assertion and the reason are incorrect.
- E) The assertion is correct but the reason is incorrect.

Answer: <https://biology-forums.com/index.php?topic=417952>

Question 1174

Which of the following is true of daily tides?

- A) Each day has either a high tide or a low tide.
- B) Each day has two high tides and two low tides.
- C) Each day has both a high tide and a low tide.
- D) Each day may have one or two of each type, depending on location.

Answer: <https://biology-forums.com/index.php?topic=417653>

Question 1175

Which explanation best describes how oceanic crust is formed?

- A) Oceanic crust crystallizes in the core and is pushed up through volcanic pipes.
- B) Oceanic crust is extracted from the mantle by partial melting and crystallization.
- C) Oceanic crust formed when magma ocean cooled and has remained unchanged except around plate boundaries and at hot spots.
- D) Continental crust is swallowed by the sea at subduction zones.

Answer: <https://biology-forums.com/index.php?topic=418247>

Question 1176

A foliated, greasy metamorphic rock composed of graphite is classified as a(n)

- A) bituminous coal.
- B) anthracite.
- C) subbituminous coal.
- D) lignite.

Answer: <https://biology-forums.com/index.php?topic=417591>

Question 1177

The elevation above which snow persists throughout the year is called the

- A) glacier.
- B) snowline.
- C) zone of accumulation.
- D) zone of wastage.

Answer: <https://biology-forums.com/index.php?topic=417459>

Question 1178

Metamorphic rock forms at temperatures above

- A) 200C.
- B) 0C.
- C) 500F.
- D) 100F.

Answer: <https://biology-forums.com/index.php?topic=416957>

Question 1179

What did the author of the following quote mean?

"The result, therefore, of our present enquiry is, that we find no vestige of a beginning -- no prospect of an end."

- A) Unconformities, nonconformities, and the slow rate of erosion defined Earth as much older than religious leaders and scientists of the time believed.
- B) Rocks had been transforming through the rock cycle for billions of years and could be expected to continue to do so for billions of years more.
- C) The water cycle had a much greater scope and a capacity of hidden water than scientists had imagined.
- D) James Hutton had postulated the age of the Earth, and it was considerably older than most scientists imagined.

Answer: <https://biology-forums.com/index.php?topic=417830>

Question 1180

Arkose contains

- A) feldspar, quartz, mica, and silicates.
- B) sandstone, biotite, mica, and silicates.
- C) feldspar, biotite, and mica.
- D) sandstone, mica, and silicates.

Answer: <https://biology-forums.com/index.php?topic=417485>

Question 1181

What influences the shape of the cone of depression?

- A) balance between pumped water and ground-water flow toward well
- B) the rock type and the depth of permeability
- C) the elevation of the aquifer compared to the well depth
- D) the size of the aquifer

Answer: <https://biology-forums.com/index.php?topic=417117>

Question 1182

The process where protons fuse into larger atoms with the simultaneous release of huge amounts of energy is called nuclear

- A) energy.
- B) fragmentation.
- C) fusion.
- D) fission.

Answer: <https://biology-forums.com/index.php?topic=418301>

Question 1183

Another name for a deformation that is permanent is

- A) plastic.
- B) complete.
- C) formed.
- D) irreversible.

Answer: <https://biology-forums.com/index.php?topic=418042>

Question 1184

How does bonding affect the hardness of a crystal?

- A) Covalently bonded crystals are harder than ionically bonded crystals.
- B) Some ionically bonded crystals are harder than covalently bonded crystals, depending on the charges of ions involved.
- C) Ionically bonded crystals are harder than covalently bonded crystals.
- D) Some covalently bonded crystals are harder than ionically bonded crystals.

Answer: <https://biology-forums.com/index.php?topic=416896>

Question 1185

How do glaciers move?

- A) faster at the edges and slower in the middle
- B) faster on top, slower in the middle, and faster on the bottom
- C) faster in the middle and slower at the edges
- D) uniformly, as one rigid chunk

Answer: <https://biology-forums.com/index.php?topic=417324>

Question 1186

What is the main function of controlled laboratory experiments in the study of geology?

- A) Rocks can be tested for stress, cleavage, and chemical reactions more realistically than in nature.
- B) Calculations can be made that are more reliable than the processes in nature.
- C) They help simulate unseen processes.
- D) Many data points can be generated through laboratory trials to support theories.

Answer: <https://biology-forums.com/index.php?topic=418338>

Question 1187

Many municipal water systems use a high water tower to

- A) get the water out of the ground.
- B) provide potential energy.
- C) prevent pollution of the water.
- D) paint the town's initials.

Answer: <https://biology-forums.com/index.php?topic=417268>

Question 1188

True or False: Color is always a reliable property for identifying a mineral

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=416956>

Question 1189

Evidence that the entire thickness of the ocean water column is in motion during a tsunami includes

- A) the large wavelengths.
- B) the low wave base.
- C) the low velocities.
- D) the short period.

Answer: <https://biology-forums.com/index.php?topic=417760>

Question 1190

Plate boundaries may be all of the following except

- A) narrow, sharp lines.
- B) diffuse, broad zones.
- C) convergent.
- D) static zones.

Answer: <https://biology-forums.com/index.php?topic=417566>

Question 1191

An arched fold where limbs dip toward the hinge line is

- A) a dip.
- B) a syncline.
- C) a plunging fold.
- D) an anticline.

Answer: <https://biology-forums.com/index.php?topic=417329>

Question 1192

Divisions within the three classes of rocks are

- A) descriptive.
- B) genetic.
- C) based on chemical composition.
- D) mathematical.

Answer: <https://biology-forums.com/index.php?topic=416954>

Question 1193

The painful burn you feel when touching something hot is an example of the

- A) conduction of heat.
- B) refraction of heat.
- C) convection of heat.
- D) radiation of heat.

Answer: <https://biology-forums.com/index.php?topic=418350>

Question 1194

When geologists study metamorphism in the laboratory, which factor would they probably not vary?

- A) temperature
- B) abundance and composition of fluid
- C) volume available for reaction to occur
- D) rock composition

Answer: <https://biology-forums.com/index.php?topic=417622>

Question 1195

Which desert is not subtropical?

- A) Sahara
- B) Kalahari
- C) Namib
- D) Arabian

Answer: <https://biology-forums.com/index.php?topic=417857>

Question 1196

What is the main difference between the A horizon and the C horizon?

- A) silica content
- B) clay content
- C) particle size
- D) organic content

Answer: <https://biology-forums.com/index.php?topic=418051>

Question 1197

What type of reaction is this? $\text{KAl}_3\text{Si}_3\text{O}_{10}(\text{OH})_2 + \text{SiO}_2 \rightarrow \text{Al}_2\text{SiO}_5 + \text{KAlSi}_3\text{O}_8 + \text{H}_2\text{O}$

- A) decomposition
- B) degassing
- C) dehydration
- D) decay

Answer: <https://biology-forums.com/index.php?topic=417630>

Question 1198

Which of the following surface elevations is clearly underlain by oceanic crust?

- A) - 5 km
- B) - 0.5 km
- C) 8.85 km
- D) 0 km (sea level)

Answer: <https://biology-forums.com/index.php?topic=417957>

Question 1199

Where are glaciers fastest?

- A) in the Alps
- B) in Antarctica
- C) in Greenland
- D) There is no clear difference between continents.

Answer: <https://biology-forums.com/index.php?topic=417339>

Question 1200

Geologists use the following methods to study metamorphic processes except

- A) experiment and conclusion.
- B) indirect observation and inference.
- C) inference and theory.
- D) direct observation and conclusion.

Answer: <https://biology-forums.com/index.php?topic=417618>

Question 1201

Which of the following is not a reason that scientists have inferred that the core consists mostly of iron?

- A) Molten iron's typical movement accounts for the wobbly rotation of Earth on its axis.
- B) Iron is the only common element that accounts for the high density of the core.
- C) Liquid iron in the core can explain Earth's magnetic field.
- D) Some meteorites consist mostly of iron and appear to be likely analogs for planet cores.

Answer: <https://biology-forums.com/index.php?topic=418078>

Question 1202

A large intrusion of magma that forms over a long period of time deep under the Earth has 128 square kilometers exposed to the surface by erosion. Analysis proves that the rock contains large crystals of gabbro. This formation is called

- A) a sill.
- B) a dike.
- C) a stock.
- D) a batholith.

Answer: <https://biology-forums.com/index.php?topic=417232>

Question 1203

True or False: Batholiths are larger than stocks.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417253>

Question 1204

The tide-gage record in New York City shows that the sea level over the last 100 years has

- A) dropped by an average of 1.1 centimeters per year.
- B) risen by an average of 1.1 centimeters per year.

- C) risen by an average of 3 millimeters per year.
D) dropped by an average of 3 millimeters per year.

Answer: <https://biology-forums.com/index.php?topic=417679>

Question 1205

Twenty years ago, North America was

- A) 2 m closer to Antarctica.
B) 0.5 m closer to Europe.
C) 2 m closer to the North Pole.
D) 0.5 m farther from Europe.

Answer: <https://biology-forums.com/index.php?topic=417557>

Question 1206

Which of the following is not a difference between sea ice and ice shelves?

- A) where they form
B) composition
C) where they exist
D) how long they exist

Answer: <https://biology-forums.com/index.php?topic=417390>

Question 1207

Using the hydrologic equation, what would you do to a river if you wanted to prevent flooding?

Answer: <https://biology-forums.com/index.php?topic=417024>

Question 1208

Which type of chemical is most prevalent in igneous rock?

- A) phosphate
B) silicate
C) sulfate
D) carbonate

Answer: <https://biology-forums.com/index.php?topic=417085>

Question 1209

What is the definition of strain?

- A) force applied parallel to a surface
B) a type of normal stress where the forces are equal in all three dimensions
C) deformation of rock as a result of an applied stress
D) a force applied perpendicular to a surface

Answer: <https://biology-forums.com/index.php?topic=417652>

Question 1210

Which of the following is an example of a slow moving plate?

- A) Cocos Plate
B) Pacific Plate
C) Philippine Plate
D) North American Plate
E) Nazca Plate

Answer: <https://biology-forums.com/index.php?topic=417733>

Question 1211

Why are some faults named "reverse" faults?

- A) The rock moves in opposite directions on each side of the fault.
B) The rock on the hanging wall moves opposite to the direction it does in a normal fault.
C) The rock moves in one direction, then reverses and moves in another direction.
D) The rock on the hanging wall moves perpendicular to the direction of a thrust fault.

Answer: <https://biology-forums.com/index.php?topic=417341>

Question 1212

What aluminosilicate polymorph is stable at a pressure of 8 kilobars and a temperature of 600 degrees C?

- A) andalusite
- B) andalusite and sillimanite
- C) sillimanite
- D) kyanite

Answer: <https://biology-forums.com/index.php?topic=417565>

Question 1213

The shape of Earth's magnetic field resembles

- A) an elliptical magnet.
- B) a bar magnet.
- C) a horseshoe magnet.
- D) a spherical magnet.

Answer: <https://biology-forums.com/index.php?topic=417203>

Question 1214

What is regolith?

- A) rock that is from a particular bedding layer
- B) rock that is weathered and loose
- C) a large continuous occurrence of rock
- D) rock from the layer closest to the surface

Answer: <https://biology-forums.com/index.php?topic=418037>

Question 1215

Read carefully through the paragraph below, and decide which of the options is correct.

Nineteenth century geologists recognized that no extraordinary means are required to explain geologic features. For example we can observe the slow, persistent processes of erosion, transportation and deposition of sediment by flowing water and wind. Over the immense span of geologic time these processes result in the formation of great thicknesses of sand, gravel and mud which never consolidate into rock. No cataclysms are required. Using observations of processes and results to interpret other results where the process was not observed is called the Principle of Supernatural.

- A) The word "never" should be replaced by "eventually".
- B) The word "water" should be replaced by "lava".
- C) The word "transportation" should be replaced by "crystallization".
- D) The word "Unifomitarianism" should be replaced by "Supernatural".

Answer: <https://biology-forums.com/index.php?topic=418335>

Question 1216

A rock that is 200 million years old comes from the _____ Era.

- A) Paleozoic
- B) Cenozoic
- C) Mesozoic
- D) Jurassic/Triassic

Answer: <https://biology-forums.com/index.php?topic=417965>

Question 1217

The lava at Kilauea volcano in Hawaii moves down slope at speeds of _____ meters per second.

- A) 10 to 100
- B) 1 to 10
- C) 100 to 1000
- D) 0.1 to 1

Answer: <https://biology-forums.com/index.php?topic=417078>

Question 1218

An angular unconformity does not record

- A) fossils.
- B) the time that passed during erosion and tilting.

- C) the order of layers in the upper section.
D) the order of layers in the bottom, tilted section.

Answer: <https://biology-forums.com/index.php?topic=417811>

Question 1219

Which of the following statements regarding sea-level is false?

- A) Marine sedimentary rocks in present day continental interiors indicate times when continents were submerged.
B) The edges of continents submerged today were dry land at times in the past.
C) There is a connection between average lithosphere age and sea level.
D) Sea level is a convenient reference position because it is constant.

Answer: <https://biology-forums.com/index.php?topic=417990>

Question 1220

Which is not a likely effect of snowfall on a mountain?

- A) mass movement
B) increased cohesive binding by ice crystals
C) decreased friction as snowmelts
D) increased weight

Answer: <https://biology-forums.com/index.php?topic=418205>

Question 1221

The principle of isostasy emerged in the nineteenth century to explain puzzling survey measurements near

- A) the Himalayas.
B) the Alps.
C) Africa.
D) England.

Answer: <https://biology-forums.com/index.php?topic=417973>

Question 1222

What variable will determine if light passes through diamond, but not through graphite?

- A) the color of the different bond types
B) the arrangement of the nuclei
C) the amount of protons present
D) the arrangement of the electrons

Answer: <https://biology-forums.com/index.php?topic=416893>

Question 1223

Which statement is true about the composition of minerals?

- A) All minerals are compounds.
B) Minerals are composed of elements.
C) There are no minerals composed of only one element.
D) The chemical composition of a mineral does not determine the physical properties of the mineral.

Answer: <https://biology-forums.com/index.php?topic=416821>

Question 1224

_____ soils are common in the western United States.

- A) Desert
B) Forest
C) Wetland
D) Grassland
E) Rainforest

Answer: <https://biology-forums.com/index.php?topic=418148>

Question 1225

Read carefully through the following sentence, and decide which of the options is correct. Erosion and deposition of sediment redistribute mass and change the densities of columns of crust.

- A) The word "densities" should be replaced by "thickness".

- B) The word "mass" should be replaced by "temperature".
- C) The word "sediment" should be replaced by "magma".
- D) The word "crust" should be replaced by "mantle".

Answer: <https://biology-forums.com/index.php?topic=417976>

Question 1226

Why do silicate ions cement into quartz as they rise toward the surface?

- A) The pressure decreases.
- B) The temperature decreases.
- C) They get access to air as they near the surface.
- D) They come into contact with the other ions they need to precipitate.

Answer: <https://biology-forums.com/index.php?topic=417380>

Question 1227

A rock that formed by reactions with hot fluids would be classified as a _____ rock.

- A) plutonic igneous
- B) contact metamorphic
- C) chemical sedimentary
- D) hydrothermal metamorphic

Answer: <https://biology-forums.com/index.php?topic=416861>

Question 1228

Werner invited his students to see a particular rock type in France, whereby their viewpoint about the formation of all rocks changed. Which rock did they observe?

- A) sandstone
- B) schist
- C) basalt
- D) granite

Answer: <https://biology-forums.com/index.php?topic=416969>

Question 1229

Magnetic force lines go into Earth

- A) at the south magnetic pole.
- B) at both geographic poles.
- C) at the north magnetic pole.
- D) at all locations due to gravity.

Answer: <https://biology-forums.com/index.php?topic=417167>

Question 1230

"Tsunami" refers to

- A) high-amplitude, high-frequency waves that reach shore.
- B) a sudden buildup of wave amplitude in shallow water.
- C) a series of waves that reach the shore in fast succession, causing extreme damage.
- D) huge waves at sea that diminish somewhat and reach land.

Answer: <https://biology-forums.com/index.php?topic=417448>

Question 1231

Aluminum ore called bauxite forms in _____ soils.

- A) wetland
- B) desert
- C) forest
- D) rainforest
- E) grassland

Answer: <https://biology-forums.com/index.php?topic=418143>

Question 1232

True or False: The density of the outer core matches that of nearly pure iron with perhaps some nickel at very high pressure.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418129>

Question 1233

What happens when river slopes are uplifted beyond their maximum stable slope?

- A) They usually remain at the uplifted angle but are more unstable when earthquakes occur.
- B) They are usually returned to the maximum stable slope by landslides.
- C) They are usually returned to the maximum stable angle by erosion.
- D) The river water fills the deeper crevice and maintains that depth.

Answer: <https://biology-forums.com/index.php?topic=418248>

Question 1234

After movement, the interior parts of ice slabs and continental plates

- A) may be stretched.
- B) remain unchanged.
- C) may be rippled up to form hills, ridges, and mountains.
- D) may be cracked to form crevices.

Answer: <https://biology-forums.com/index.php?topic=417563>

Question 1235

Judge the following sentence according to the criteria given below. Earth's magnetic field is due to a big mass of magnetized material inside Earth because magnets function only at relatively low temperatures.

- A) Both the assertion and the reason are incorrect.
- B) The assertion is incorrect but the reason is correct.
- C) The assertion is correct but the reason is incorrect.
- D) The assertion and the reason are both correct, and the reason is valid.
- E) The assertion and the reason are both correct, but the reason is invalid.

Answer: <https://biology-forums.com/index.php?topic=417288>

Question 1236

Which of the following is a good analogy for planetary differentiation?

- A) dust particles clumping together under your bed
- B) scrambling an egg to make an omelet
- C) a salad dressing of oil and vinegar
- D) throwing a snowball through a heavy blizzard of snowflakes

Answer: <https://biology-forums.com/index.php?topic=418308>

Question 1237

Why do wind directions not remain the same year round?

- A) The Coriolis effect is a seasonal effect.
- B) Lower air pressure over the continents in the summer.
- C) Atmospheric convection only occurs in the summer.
- D) Land and ocean surfaces heat evenly.

Answer: <https://biology-forums.com/index.php?topic=417997>

Question 1238

Geologists have not studied the composition of the oceanic crust by

- A) studying the contents of drill holes.
- B) analyzing earthquake data.
- C) examining aboveground mountain ranges.
- D) dragging buckets along the floor to collect sediment and rocks.

Answer: <https://biology-forums.com/index.php?topic=418013>

Question 1239

A rock that formed by solidification of magma below Earth's surface would be classified as a _____ rock

- A) plutonic

- B) volcanic
- C) clastic
- D) hydrothermal

Answer: <https://biology-forums.com/index.php?topic=416849>

Question 1240

Oceans of water and continental crust were present

- A) 150 000 000 years after Earth formed.
- B) 15 000 000 years after Earth formed.
- C) 2 000 000 000 years after Earth formed.
- D) 75 000 000 years after Earth formed.

Answer: <https://biology-forums.com/index.php?topic=418257>

Question 1241

Why do hot spots form a trail of extinct volcanoes over time?

- A) The heat and debris from the eruptions are enough to form nearby islands.
- B) The mantle plume moves with Earth's rotation.
- C) The mantle-plume hypothesis assumes the hot plumes are wedge-shaped.
- D) The tectonic plates that contain the volcanoes move over time.

Answer: <https://biology-forums.com/index.php?topic=417646>

Question 1242

A blocky clastic sedimentary rock composed of clay would be called a

- A) siltstone.
- B) claystone.
- C) shale.
- D) mudstone.

Answer: <https://biology-forums.com/index.php?topic=417407>

Question 1243

Uniformitarian principles cannot

- A) forecast the severity of upcoming geologic events.
- B) accurately describe past events.
- C) predict where geologic events will likely occur in the future.
- D) closely predict the timing of upcoming geologic events.

Answer: <https://biology-forums.com/index.php?topic=418336>

Question 1244

A quartz sandstone and an arkose were both produce from the weathering of a granite. Which rock's sediments experienced a greater degree of weathering than the other?

- A) The sediments in the quartz sandstone experienced a greater degree of weathering than the sediments in the arkose.
- B) The sediments in the arkose experienced a greater degree of weathering than the sediments in the quartz sandstone.
- C) There is not enough information to answer this question.
- D) The sediments in the arkose and the quartz sandstone both experienced the same degree of weathering.

Answer: <https://biology-forums.com/index.php?topic=417440>

Question 1245

True or False: Metamorphic processes can be seen because metamorphic rocks form on Earth's surface.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417522>

Question 1246

What conditions during the formation of coal may reduce its quality for industrial use?

- A) The coal is formed of mostly green plants and contains very few woody trees.
- B) Very high heat and pressure are applied.
- C) Clay and silt wash periodically through the swamp that formed the coal.

D) The swamp that formed the coal floods.

Answer: <https://biology-forums.com/index.php?topic=417498>

Question 1247

All of the following processes aid the lithosphere in becoming denser than the asthenosphere except

- A) forming by decompression melting.
- B) cooling and contracting.
- C) metamorphosing into eclogite.
- D) thickening by addition to the base.

Answer: <https://biology-forums.com/index.php?topic=417715>

Question 1248

Which of the following rocks would you expect to have the lowest permeability?

- A) Poorly-sorted uncemented sand
- B) Well-sorted cemented sand
- C) Poorly-sorted cemented sand
- D) Well-sorted uncemented sand

Answer: <https://biology-forums.com/index.php?topic=417224>

Question 1249

Planetary differentiation relies upon

- A) heat.
- B) pressure.
- C) chemical composition.
- D) density.

Answer: <https://biology-forums.com/index.php?topic=418216>

Question 1250

True or False: Volcanic bombs do not explode.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417212>

Question 1251

Which land feature is not a hint that groundwater weathering has been taking place?

- A) amphitheatre-like caverns in cliffs
- B) rock towers
- C) underground caverns
- D) fine sand particles

Answer: <https://biology-forums.com/index.php?topic=417206>

Question 1252

A geologist observing a break in a rock formation consisting of sedimentary layers concludes that the layers were displaced as a result of fault movement. Which principle is described here?

- A) the principle of superposition
- B) the principle of cross-cutting relationships
- C) the principle of inclusions
- D) the principle of original horizontality

Answer: <https://biology-forums.com/index.php?topic=417753>

Question 1253

A crevasse stops in a glacier at a depth

- A) where plastic deformation occurs.
- B) located at the rock or regolith below the glacier.
- C) equal to the crustal boundary.
- D) of 50 meters.

Answer: <https://biology-forums.com/index.php?topic=417514>

Question 1254

Stretching a rubber band and then returning it to its original shape is an example of _____ deformation.

- A) elastic
- B) aural
- C) plastic
- D) brittle

Answer: <https://biology-forums.com/index.php?topic=418161>

Question 1255

What grade of metamorphism occurs at a depth of 6 km and a temperature of 100 degrees C.

- A) low-grade metamorphism
- B) lithification of sedimentary rocks
- C) not found on Earth
- D) medium-grade metamorphism

Answer: <https://biology-forums.com/index.php?topic=417529>

Question 1256

How were the Appalachian Mountains formed?

- A) sea mounts and island volcanos
- B) thrust and uplift of continental crust
- C) accretion by subduction zones
- D) as a volcanic island arc

Answer: <https://biology-forums.com/index.php?topic=417904>

Question 1257

Rocks formed by the solidification of molten rock material are called

- A) sedimentary rocks.
- B) intrusive rocks.
- C) metamorphic rocks.
- D) igneous rocks.

Answer: <https://biology-forums.com/index.php?topic=416843>

Question 1258

What percent of the total electrical generating capacity of the United States is accounted for by hydroelectricity?

- A) 2%
- B) 12%
- C) 20%
- D) 18%

Answer: <https://biology-forums.com/index.php?topic=416916>

Question 1259

When a shale metamorphoses into a slate why do some slates contain muscovite and some slates contain chlorite?

- A) The chlorite slates form at different temperatures and pressures than the muscovite slates.
- B) The chlorite slates form at different pressures than the muscovite slates.
- C) The chlorite slates have a different composition than the muscovite slates.
- D) The chlorite slates form at different temperatures than the muscovite slates.

Answer: <https://biology-forums.com/index.php?topic=417728>

Question 1260

Which type of volcano is characterized by slopes less than 15 degrees?

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

Answer: <https://biology-forums.com/index.php?topic=417238>

Question 1261

The soils in the central part of the United States used for growing wheat, corn and soybeans are classified as _____ soils.

- A) grassland
- B) desert
- C) forest
- D) rainforest
- E) wetland

Answer: <https://biology-forums.com/index.php?topic=418125>

Question 1262

Where does a point bar accumulate?

- A) between distributary channels
- B) at the outer ends of a delta
- C) on the outside of a meander
- D) on the inside of a meander

Answer: <https://biology-forums.com/index.php?topic=416880>

Question 1263

All of the following agricultural practices decrease erosion except

- A) contour plowing.
- B) "no-till" plowing.
- C) slope terracing.
- D) row plowing.

Answer: <https://biology-forums.com/index.php?topic=418156>

Question 1264

True or False: Earth exhibits a gradual inward transition from low-density to high-density rock.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418153>

Question 1265

How does gasoline behave when it leaks into the water table?

- A) It dissolves in the water.
- B) It precipitates.
- C) It floats on top of the water table.
- D) It sinks to the bottom of the aquifer.

Answer: <https://biology-forums.com/index.php?topic=417187>

Question 1266

How does a river "pluck" particles?

- A) force of water rushing against particles in solid rock
- B) scouring action of particles around the rock which encloses the rock that is plucked
- C) hammer-like action of particles against the particles that are lodged in the side of river canyons
- D) shear stress of water against joints and cracks

Answer: <https://biology-forums.com/index.php?topic=416838>

Question 1267

A muddy sedimentary environment exposed to the air allowing the sediment to dry out will result in

- A) ripples.
- B) mudcracks.
- C) graded beds.
- D) cross-beds.

Answer: <https://biology-forums.com/index.php?topic=417509>

Question 1268

True or False: The strongest acid in chemical weathering forms from mixing carbon dioxide and water.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417311>

Question 1269

What is the difference between quartz and quartzite?

- A) formation process
- B) source rock
- C) chemical composition
- D) color

Answer: <https://biology-forums.com/index.php?topic=417686>

Question 1270

The type of weathering that occurs when the weathered mineral reacts with water to produce a new mineral and ions in solution is called

- A) hydrolysis.
- B) dissolution.
- C) ionization.
- D) oxidation.

Answer: <https://biology-forums.com/index.php?topic=417314>

Question 1271

True or False: Rising mantle material will ultimately stop because, at lower pressures, decompression causes the material to expand, cool and contract.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417260>

Question 1272

Most deserts are located near

- A) 15° latitude.
- B) 45° latitude.
- C) 30° latitude.
- D) the equator.

Answer: <https://biology-forums.com/index.php?topic=417852>

Question 1273

Which of the following parameters does not determine the mineral composition and texture of a metamorphic rock?

- A) abundance and composition of fluid
- B) temperature and pressure
- C) original rock composition
- D) environment of deposition

Answer: <https://biology-forums.com/index.php?topic=417540>

Question 1274

What type of bonding is found in calcite?

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

Answer: <https://biology-forums.com/index.php?topic=416860>

Question 1275

Tiny products of volcanic eruptions may remain aloft in the atmosphere for

- A) about ten years.
- B) up to three years.
- C) up to six months.

D) about fifteen years.

Answer: <https://biology-forums.com/index.php?topic=417890>

Question 1276

True or False: Cleavage planes form where bonds are weakest in minerals.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=416989>

Question 1277

Which of the following is a good analogy for planetesimal growth?

- A) getting your tongue stuck on a frozen pipe
- B) rolling a snowball on the ground to build a snowman
- C) throwing a snowball through a heavy blizzard of snowflakes
- D) melting of a snowman on a warm sunny day

Answer: <https://biology-forums.com/index.php?topic=418292>

Question 1278

Approximately how long has it been since the last magnetic reversal?

- A) 780,000 years
- B) 1.768 million years
- C) 1,780 years
- D) 17,800 years

Answer: <https://biology-forums.com/index.php?topic=417185>

Question 1279

Ground water

- A) moves short distances through shallow soil horizons and reemerges to join surface runoff in streams.
- B) percolates through lava rock to reach the soil below.
- C) percolates deep below the surface through open spaces and fractures.
- D) trickles along surfaces of mainly granite rocks.

Answer: <https://biology-forums.com/index.php?topic=417074>

Question 1280

Contaminants in the water table may do all of the following except

- A) sink below the level of the water.
- B) float on top of the level of the water.
- C) disappear.
- D) precipitate.

Answer: <https://biology-forums.com/index.php?topic=417179>

Question 1281

A volcanologist extracts a piece of rock near a volcano site and observes no visible crystals. The rock has a dark color and is clear when held up to the light. What is this rock?

- A) pumice
- B) granite
- C) obsidian
- D) basalt

Answer: <https://biology-forums.com/index.php?topic=417102>

Question 1282

True or False: The scientific method is a description of how scientists measure natural phenomena and rigorously test new ideas about how some part of the natural world works.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418361>

Question 1283

Global wind patterns are a result of all of the following except

- A) temperature driven convection.
- B) evaporation and condensation of water vapor.
- C) Earth's magnetic field.
- D) Earth's rotation.

Answer: <https://biology-forums.com/index.php?topic=417964>

Question 1284

The body waves that can only pass through solids are

- A) tertiary (T) waves.
- B) quaternary (Q) waves.
- C) primary (P) waves.
- D) secondary (S) waves.

Answer: <https://biology-forums.com/index.php?topic=418106>

Question 1285

Which rock is described below?

"This first-formed metamorphic rock preferentially splits along planes of parallel microscopic micas."

- A) phyllite
- B) gneiss
- C) slate
- D) schist

Answer: <https://biology-forums.com/index.php?topic=417672>

Question 1286

Read carefully through the paragraph below, and decide which of the options is correct.

Intermediate and felsic continental crust can form by simple mantle melting. Physical separation of metamorphosed mafic igneous rocks may leave behind typical, more felsic crust. Partial melting of basaltic oceanic crust in hot early Earth may have generated magmas with continental-crust composition that form rarely today

- A) The word "can" should be replaced by "cannot".
- B) The word "rarely" should be replaced by "abundantly".
- C) The word "separation" should be replaced by "mixing".
- D) The word "Partial" should be replaced by "Total".

Answer: <https://biology-forums.com/index.php?topic=418317>

Question 1287

Rocks formed from the products of the breakdown of preexisting rock are called

- A) igneous rocks.
- B) sedimentary rocks.
- C) metamorphic rocks.
- D) external rocks.

Answer: <https://biology-forums.com/index.php?topic=416840>

Question 1288

Which type of glacier does the most erosional work?

- A) relatively warm glaciers
- B) valley glaciers
- C) relatively large glaciers
- D) relatively fast glaciers

Answer: <https://biology-forums.com/index.php?topic=417333>

Question 1289

Which of the following is a hypothesis regarding the initial formation of Earth's magnetic field?

- A) The magnetic field was generated by Earth's rotation.
- B) The magnetic field was transferred from the Sun.

C) The magnetic field originated with Earth.
D) Magnetite and other magnetic iron minerals aligned during solidification of the magma ocean.
Answer: <https://biology-forums.com/index.php?topic=417195>

Question 1290

Choose the option that correctly lists the thickness of Earth's crust in two regions.
A) oceanic: 25 km; continental: 7 km
B) oceanic: 25-50 km; continental: 25-50 km
C) oceanic: 7 km; continental: 25-50 km
D) oceanic: 10-25 km; continental: 25-50 km
Answer: <https://biology-forums.com/index.php?topic=418004>

Question 1291

How does discharge play into the recurrence interval equation?
Answer: <https://biology-forums.com/index.php?topic=417039>

Question 1292

What distinguishes continental crust from ocean crust?
A) composition
B) location
C) whether or not it is covered by water
D) elevation
Answer: <https://biology-forums.com/index.php?topic=417797>

Question 1293

The vertical distance between adjacent wave crest and wave trough is called
A) wave height.
B) wavelength.
C) wave base.
D) wave period.
Answer: <https://biology-forums.com/index.php?topic=417720>

Question 1294

When did the Himalayan Mountains form?
A) Devonian Period
B) Mesozoic Era
C) Paleozoic Era
D) Cenozoic Era
Answer: <https://biology-forums.com/index.php?topic=417683>

Question 1295

Which of the following types of flow moves the slowest?
A) creep
B) fall
C) avalanche
D) slide
Answer: <https://biology-forums.com/index.php?topic=418273>

Question 1296

Which is not a method that geologists use to study Earth's interior?
A) They use ultrasound, X-rays, infrared, and SONAR imaging to get three-dimensional images of rocks at depth.
B) They construct images of the interior using calculations of energy from earthquakes.
C) They infer the interior composition at deep levels from calculations of Earth's density.
D) They analyze core samples from drilled boreholes.
Answer: <https://biology-forums.com/index.php?topic=418009>

Question 1297

Why did surveyors miscalculate latitudes in India in the 1800s?

- A) incorrect calculations with correct data
- B) gravitational deflection of plumb lines
- C) inaccurate readings of stars
- D) magnetic deflection of plumb lines

Answer: <https://biology-forums.com/index.php?topic=417812>

Question 1298

Caliche is

- A) fragmented quartz crystals that tumble down a cliff.
- B) limestone crystals that form by precipitation.
- C) silica cement in ancient river-bed rocks.
- D) calcite cement in desert rocks.

Answer: <https://biology-forums.com/index.php?topic=418071>

Question 1299

An example of a rock formed by internal processes is

- A) cooling lava erupted from a volcano.
- B) sandstone layers near the beach.
- C) coarse-grained inclusion erupted from a volcano.
- D) calcite precipitated from spring water.

Answer: <https://biology-forums.com/index.php?topic=416834>

Question 1300

The continental crust has an average age of _____ and a maximum age of _____.

- A) 1.2 billion; 3.9 billion
- B) 1.8 billion; 3.2 billion
- C) 2.2 billion; 4.4 billion
- D) 1.6 billion; 4.0 billion

Answer: <https://biology-forums.com/index.php?topic=418243>

Question 1301

Crescent-shaped dunes formed where the amount of sand is outweighed by gravel and bedrock are

- A) star dunes.
- B) transverse dunes.
- C) barchan dunes.
- D) parabolic dunes.

Answer: <https://biology-forums.com/index.php?topic=417917>

Question 1302

Long sand ridges oriented parallel to the prevailing wind direction are called

- A) star dunes.
- B) linear dunes.
- C) parabolic dunes.
- D) transverse dunes.

Answer: <https://biology-forums.com/index.php?topic=417978>

Question 1303

At conditions within Earth's mantle, the increase in mineral density due to increasing pressure is _____ the decrease in mineral density due to increasing pressure.

- A) equal to
- B) greater than
- C) less than
- D) unrelated to

Answer: <https://biology-forums.com/index.php?topic=418140>

Question 1304

What is the purpose of planetary accretion gravity?

- A) pulls the mass of the nebular disk to its center
- B) binds particles together by hydrogen bonding
- C) holds satellites in the gravity of Earth
- D) pulls small particles, such as dust and debris, into larger objects

Answer: <https://biology-forums.com/index.php?topic=418200>

Question 1305

Which type of movement is least likely in the Great Smoky Mountains, where the regolith is thick?

- A) slump
- B) fall
- C) creep
- D) flow

Answer: <https://biology-forums.com/index.php?topic=418196>

Question 1306

True or False: All volcanic eruptions over the past 10,000 years occurred along or near plate boundaries.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417692>

Question 1307

A chemical or biogenic sedimentary rock consisting of halite is called

- A) dolostone.
- B) chert.
- C) rock salt.
- D) limestone.

Answer: <https://biology-forums.com/index.php?topic=417461>

Question 1308

The direction of ground-water flow between any two locations in an aquifer is determined by comparing the total _____ of the water at each location.

- A) elevation
- B) pressure
- C) volume
- D) energy

Answer: <https://biology-forums.com/index.php?topic=417100>

Question 1309

Judge the following sentence according to the criteria given below Glacial ice flows because if forms by metamorphism.

- A) Both the assertion and the reason are incorrect.
- B) The assertion is correct but the reason is incorrect.
- C) The assertion and the reason are both correct, but the reason is invalid.
- D) The assertion is incorrect but the reason is correct.
- E) The assertion and the reason are both correct, and the reason is valid.

Answer: <https://biology-forums.com/index.php?topic=417508>

Question 1310

A rock that is 90 million years old comes from the _____ Period.

- A) Mesozoic
- B) Jurassic
- C) Cretaceous
- D) Phanerozoic

Answer: <https://biology-forums.com/index.php?topic=417977>

Question 1311

A(n) _____ commonly forms a trap for oil and gas.

- A) dip
- B) joint
- C) anticline
- D) syncline

Answer: <https://biology-forums.com/index.php?topic=417349>

Question 1312

Choose the option that lists the factors that are not influences of slope stability studied during hazard assessment?

- A) type of rock, orientation of faults, amount of quartz content, orientation of bedding
- B) orientation of bedding, extent of breakage by faults, slope angle, type of regolith
- C) slope angle, orientation of foliation planes, extent of weathering, extent of breakage by faults
- D) type of regolith, extent of breakage by joints, orientation of foliation planes, type of rock

Answer: <https://biology-forums.com/index.php?topic=418224>

Question 1313

The rate of conduction varies for different materials because heat transfer relates to

- A) properties related to the size of nuclei.
- B) properties of atoms and mineral crystal structure.
- C) properties of elasticity.
- D) properties of density.

Answer: <https://biology-forums.com/index.php?topic=417108>

Question 1314

What is the relief between a point where you stand in Death Valley 75 meters below sea level and the tip of a rock on a mountain 3200 meters above sea level?

- A) 3950 m
- B) 3200 m
- C) 3125 m
- D) 3275 m

Answer: <https://biology-forums.com/index.php?topic=417785>

Question 1315

The isotopic record have peaks and troughs with a wavelength of all of the following except

- A) 12,000 years.
- B) 23,000 years.
- C) 41,000 years.
- D) 100,000 years.

Answer: <https://biology-forums.com/index.php?topic=417483>

Question 1316

On average, how frequent are earthquakes?

- A) thousands per year
- B) thousands per day
- C) hundreds per day
- D) hundreds per year

Answer: <https://biology-forums.com/index.php?topic=418034>

Question 1317

Which is not one of the three main types of sediment grain?

- A) biogenic
- B) clastic
- C) chemical
- D) conglomeratic

Answer: <https://biology-forums.com/index.php?topic=417470>

Question 1318

What does Darcy's Law do?

Answer: <https://biology-forums.com/index.php?topic=417291>

Question 1319

Resisting strength is greater when

- A) water percolates into rock along joints.
- B) bedding planes are parallel to a hillside.
- C) bedding is not parallel to a hillside.
- D) shale weathers to clay minerals.

Answer: <https://biology-forums.com/index.php?topic=418194>

Question 1320

The rusty red color observed in many surface rocks is due to the mineral

- A) carbonic acid.
- B) hematite.
- C) limonite.
- D) pyrite.

Answer: <https://biology-forums.com/index.php?topic=417322>

Question 1321

The world's rivers with the largest dissolved load occur in

- A) Africa.
- B) Asia.
- C) Europe.
- D) South America.
- E) North America.

Answer: <https://biology-forums.com/index.php?topic=416952>

Question 1322

What aluminosilicate polymorph is stable at a pressure of 8 kilobars and a temperature of 800 degrees C?

- A) andalusite
- B) sillimanite
- C) kyanite
- D) kyanite and sillimanite

Answer: <https://biology-forums.com/index.php?topic=417570>

Question 1323

Which force may cause uplift, folding, and formation of reverse and thrust faults?

- A) tension
- B) compression
- C) slab pull
- D) gravity

Answer: <https://biology-forums.com/index.php?topic=417685>

Question 1324

All of the following are common sources of groundwater pollution except

- A) landfill leachate.
- B) leaky underground storage tanks.
- C) oil tanker spills.
- D) leaky septic systems.

Answer: <https://biology-forums.com/index.php?topic=417265>

Question 1325

How many electrons fit into most levels of an atom?

- A) two
- B) four
- C) eight
- D) sixteen

Answer: <https://biology-forums.com/index.php?topic=416842>

Question 1326

Which piece of measured evidence would not help geologists produce geologic cross sections in order to interpret subsurface geology?

- A) subsurface layers
- B) orientation of folds
- C) faults
- D) orientation of rock layers

Answer: <https://biology-forums.com/index.php?topic=417347>

Question 1327

Which type of magma has the lowest viscosity?

- A) Basaltic
- B) Andesitic
- C) Rhyolitic
- D) Dacitic

Answer: <https://biology-forums.com/index.php?topic=417289>

Question 1328

Tidewater glaciers

- A) rest on the bottom of the sea until they reach deeper water.
- B) are pushed out by the action of the tides.
- C) are pushed out by the action of rivers.
- D) melt almost as soon as they reach the sea.

Answer: <https://biology-forums.com/index.php?topic=417384>

Question 1329

How are wave processes in the Great Lakes different from wave processes in the ocean?

- A) They have a shorter wavelength.
- B) They are not different.
- C) They are more frequent.
- D) They have a shorter wave height.

Answer: <https://biology-forums.com/index.php?topic=417632>

Question 1330

What was the motivation for production of slide-susceptibility maps by the U.S. Geological Survey?

- A) new urban development in areas with slopes
- B) new urban development on tectonically active plains
- C) development of new measurement technology
- D) new farming technology that increased agricultural use of slopes

Answer: <https://biology-forums.com/index.php?topic=418222>

Question 1331

Using Figure 15.25 in your textbook, what was the overall elevation change of Mount St. Helens' peak as a result of the 1980 eruption?

- A) a decrease of 900 m
- B) it stayed the same
- C) an increase of 100 m
- D) a decrease of 400 m

Answer: <https://biology-forums.com/index.php?topic=418228>

Question 1332

Which factor is not affected by a strong wind that blows for an extended time over deep water?

- A) wave position
- B) wavelength
- C) wave height
- D) wave period

Answer: <https://biology-forums.com/index.php?topic=417587>

Question 1333

Geologists in the early 1900s concluded that heat flow through continents should be greater than heat flow through ocean floors. Evaluate this hypothesis.

- A) True. The granite of the continental crust contains more radioactive elements than the basalt of the ocean floor, so more heat is produced in continental crust.
- B) False. The lithosphere is thinner beneath oceans than continents, so heat flows more easily up from the mantle.
- C) True. Continental crust is thicker than ocean crust, so more heat is produced in the thicker layer.
- D) False. The basalt of the ocean floor has a better insulating quality than continental crust granite.

Answer: <https://biology-forums.com/index.php?topic=417131>

Question 1334

What type of data to date is most useful for earthquake prediction?

- A) study of earthquake patterns in other locations
- B) monitoring world-wide seismic data and extrapolating patterns
- C) monitoring known precursor events
- D) study of rock types

Answer: <https://biology-forums.com/index.php?topic=417451>

Question 1335

What is the downside of using moment magnitude as an earthquake measurement?

Answer: <https://biology-forums.com/index.php?topic=417533>

Question 1336

Which of the silicate structures would you expect to be the most stable and resistant to weathering at Earth's surface? Why?

Answer: <https://biology-forums.com/index.php?topic=417076>

Question 1337

What two, easily observed characteristics are used to name sedimentary rocks?

- A) site of origin and age
- B) color and texture
- C) grain size and composition
- D) chemical makeup and texture

Answer: <https://biology-forums.com/index.php?topic=417473>

Question 1338

True or False: Both the Neptunist Doctrine and the Vulcanist Doctrine included parts that were later proven to be true.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417044>

Question 1339

"Compared to other ground water, the rate of the Cape Cod experiment area, 0.43 meters per day, is probably faster than average." Evaluate this statement.

- A) This is true. The Cape Cod aquifer is made of relatively porous unconsolidated gravel and sand.
- B) Aquifer flow cannot be estimated without repeating a similar experiment in other areas.
- C) This is false. Other aquifers might flow as quickly as 0.5 meters per second.
- D) This is true. The Cape Cod aquifer has a much steeper slope than average.

Answer: <https://biology-forums.com/index.php?topic=417139>

Question 1340

True or False: Despite their large size, batholiths are emplaced over a relatively short period of time.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417256>

Question 1341

Where does decompressional melting produce felsic magma?

- A) in the lower mantle
- B) convergent plate boundaries under the ocean
- C) divergent plate boundaries on continents
- D) divergent plate boundaries under the ocean

Answer: <https://biology-forums.com/index.php?topic=417273>

Question 1342

All of the following are examples of descriptive classifications except

- A) silica rich vs. silica poor vs. intermediate rocks.
- B) dark-colored vs. medium-colored vs. light-colored rocks.
- C) carbonate vs. mixed-carbonate vs. non-carbonate rocks.
- D) igneous vs. sedimentary vs. metamorphic rocks.

Answer: <https://biology-forums.com/index.php?topic=416825>

Question 1343

What is the main difference between soil horizons and sedimentary bedding?

- A) Soil horizons form in place.
- B) Soil horizons are less consistent.
- C) Sedimentary beds are harder.
- D) Sedimentary beds have a greater variety of particle sizes.

Answer: <https://biology-forums.com/index.php?topic=418032>

Question 1344

What is corundum? If it is not in the rare form described here, do we use it for anything?

Answer: <https://biology-forums.com/index.php?topic=417086>

Question 1345

Deflation is derived from a Latin word meaning

- A) to lose volume.
- B) to erode.
- C) to abrade or scrape.
- D) to blow away.

Answer: <https://biology-forums.com/index.php?topic=417895>

Question 1346

The Coriolis effect shifts moving objects to the _____ of their initial path in the northern hemisphere and to the _____ in the southern hemisphere.

- A) right, right
- B) left, right
- C) left, left
- D) right, left

Answer: <https://biology-forums.com/index.php?topic=417995>

Question 1347

Why does the ratio of oxygen 18 to oxygen 16 in the oceans increase during an ice age?

- A) Sea water freezes into glaciers.
- B) There is a different kind of radioactivity occurring on land at the colder world temperatures.
- C) There is a different kind of radioactivity occurring in the ocean at the colder world temperatures.
- D) More precipitated water remains on land instead of running back to the sea.

Answer: <https://biology-forums.com/index.php?topic=417441>

Question 1348

True or False: Changes in widely accepted hypotheses represent the failure of science to provide the right result.

- A) True

B) False

Answer: <https://biology-forums.com/index.php?topic=418365>

Question 1349

Due to rock cycle processes, finding old rocks by radioactive methods is difficult. What is the age of the oldest single rock found on Earth to date?

- A) more than 3 billion years
- B) more than 2 billion years
- C) more than 4 billion years
- D) more than 2.5 billion years

Answer: <https://biology-forums.com/index.php?topic=417876>

Question 1350

Earth's _____ is divided into the inner, liquid core and the outer, solid core.

- A) oceanic crust
- B) mantle
- C) continental crust
- D) core

Answer: <https://biology-forums.com/index.php?topic=418355>

Question 1351

"Made by wind" is the meaning of the Latin root of the word

- A) ventifact.
- B) yardang.
- C) pan.
- D) deflation.

Answer: <https://biology-forums.com/index.php?topic=417908>

Question 1352

Which of the following statements about cratons is not true?

- A) They are usually less than a half of a kilometer above sea level.
- B) They may be broken by faults.
- C) They have been tectonically stable for more than 500 million years.
- D) They are exterior regions of continents.

Answer: <https://biology-forums.com/index.php?topic=417907>

Question 1353

What ion was used as a tracer in the Cape Cod experiment?

- A) sulfide
- B) dioxide
- C) bromide
- D) chloride

Answer: <https://biology-forums.com/index.php?topic=417143>

Question 1354

Accumulated rock-fall debris along the margin of a glacier is called

- A) a lateral moraine.
- B) a kame.
- C) an esker.
- D) a medial moraine.

Answer: <https://biology-forums.com/index.php?topic=417363>

Question 1355

True or False: The starting composition of a metamorphic rock, with slight modification is identical to the ending composition.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417544>

Question 1356

90 million years ago India was

- A) in its present day location.
- B) not part of Asia.
- C) at the south pole.
- D) north of the equator.

Answer: <https://biology-forums.com/index.php?topic=417727>

Question 1357

Which factor has the greatest influence on how long water spends in an aquifer?

- A) permeability
- B) elevation difference between recharge and discharge
- C) length of flow path
- D) porosity

Answer: <https://biology-forums.com/index.php?topic=417111>

Question 1358

How can earthquakes cripple emergency services, transportation networks, water and gas utilities, and communication?

Answer: <https://biology-forums.com/index.php?topic=417545>

Question 1359

Where did water possibly form before it formed on Earth's surface?

- A) on the Moon
- B) the outer solar system
- C) close to the core
- D) the inner solar system near the Sun

Answer: <https://biology-forums.com/index.php?topic=418261>

Question 1360

Which factor is not a geologic factor in soil quality in an area?

- A) slope
- B) reactions with acid rain
- C) age of rock
- D) rock type

Answer: <https://biology-forums.com/index.php?topic=418327>

Question 1361

What percentage of the continental United States becomes hazy when there is an African dust episode?

- A) 3%
- B) 10%
- C) 30%
- D) 45%

Answer: <https://biology-forums.com/index.php?topic=417926>

Question 1362

What is a talus?

- A) a scooped-out area caused by a fall or slip of debris
- B) a pile of rock with no vegetation covering it
- C) an arm of debris and regolith
- D) a pile of rock at the bottom of a steep slope

Answer: <https://biology-forums.com/index.php?topic=418180>

Question 1363

_____ geology applies an understanding of physical, chemical, and biological processes to interpret the history of Earth.

- A) Temporal
- B) Hydro-

- C) Historical
- D) Physical

Answer: <https://biology-forums.com/index.php?topic=418351>

Question 1364

How many square kilometers were submerged in the prolonged 1993 flood of the upper Mississippi River?

- A) 260, 000
- B) 26
- C) 2, 600
- D) 26, 000

Answer: <https://biology-forums.com/index.php?topic=416898>

Question 1365

At what depth do diamonds form in Earth?

- A) 3.6 km
- B) 8 km
- C) 50 km
- D) 150 km

Answer: <https://biology-forums.com/index.php?topic=417996>

Question 1366

Where do the largest debris flows and rock slides occur?

- A) in steep, narrow canyons
- B) in wide, broad canyons
- C) on volcanoes
- D) on steep mountains or hillsides

Answer: <https://biology-forums.com/index.php?topic=418218>

Question 1367

Judge the following sentence according to the criteria given below Evidence for the erosion and modification of the landscape by the wind is not seen everywhere in desert climates because some places in the desert lack vegetation and have strong winds.

- A) The assertion and the reason are both correct, but the reason is invalid.
- B) The assertion is correct but the reason is incorrect.
- C) Both the assertion and the reason are incorrect.
- D) The assertion is incorrect but the reason is correct.
- E) The assertion and the reason are both correct, and the reason is valid.

Answer: <https://biology-forums.com/index.php?topic=418008>

Question 1368

A very hard, non-foliated metamorphic rock composed microscopically small crystals is classified as a(n)

- A) hornfels.
- B) greenstone.
- C) slate.
- D) amphibolite.

Answer: <https://biology-forums.com/index.php?topic=417595>

Question 1369

Where would you measure, then, if you wanted an average velocity for the entire channel?

Answer: <https://biology-forums.com/index.php?topic=417030>

Question 1370

The depth below which there is no wave motion is called the

- A) wave height.
- B) wave period.
- C) wave base.
- D) wavelength.

Answer: <https://biology-forums.com/index.php?topic=417738>

Question 1371

How do sand dunes and ventifacts on Mars compare to sand dunes and ventifacts on Earth?

- A) They are considerably smaller.
- B) They are much larger.
- C) They are the same.
- D) They are shaped differently due to the composition of the Martian surface.

Answer: <https://biology-forums.com/index.php?topic=417899>

Question 1372

Which of the following cause ground water to flow?

- A) potential energy and pressure
- B) kinetic energy and pressure
- C) volume and elevation
- D) elevation and potential energy

Answer: <https://biology-forums.com/index.php?topic=417103>

Question 1373

Which of the following is not a major source for Earth's current heat energy?

- A) Thorium
- B) Potassium
- C) Uranium
- D) Rubidium

Answer: <https://biology-forums.com/index.php?topic=418312>

Question 1374

Although we don't know for sure, changes in the strength and orientation of earth's magnetic field are most likely due to

- A) changes in the velocity of subducting plates.
- B) variations in sea-floor spreading rates.
- C) the total number of mantle hot spots.
- D) fluctuations in outer-core convection.

Answer: <https://biology-forums.com/index.php?topic=417290>

Question 1375

At what distance from the nearest plate boundary have the Andes formed?

- A) 100-150 km
- B) 100-500 km
- C) 0-100 km
- D) 200-400 km

Answer: <https://biology-forums.com/index.php?topic=417868>

Question 1376

Based on observations, geologists have determined that this factor does not help to determine whether a stream will have a meandering or braided pattern.

- A) discharge variability
- B) bank stability
- C) channel slope
- D) stream power per stream bed area

Answer: <https://biology-forums.com/index.php?topic=416994>

Question 1377

"All glacial ice must melt slightly before it can become denser." Evaluate this statement.

- A) This statement is false. Glacial snow and ice may melt and reform, but they do not get denser.
- B) This statement is true; especially in Alaska where summers are warm.
- C) This statement is false. Snow can go through metamorphosis to ice over time without melting.
- D) This statement is true. Glacial ice formed by melting and pressure becomes denser than water.

Answer: <https://biology-forums.com/index.php?topic=417318>

Question 1378

What impact did the floods have on the Columbia River valley?

Answer: <https://biology-forums.com/index.php?topic=417541>

Question 1379

What evidence did the Hubble Space Telescope provide to support the nebular theory of solar system formation?

- A) pictures of other spinning stars
- B) proof of the expansion of our solar system
- C) proof of the spinning of our solar system
- D) pictures of other stars with dust and gas

Answer: <https://biology-forums.com/index.php?topic=418204>

Question 1380

True or False: All clay-mineral grains in a clastic sedimentary rock are clay size.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417434>

Question 1381

The depth of the crust does not depend on

- A) the density of the mantle beneath it.
- B) the heights of nearby mountains.
- C) the composition of the crust.
- D) the height of the mountain above it.

Answer: <https://biology-forums.com/index.php?topic=417808>

Question 1382

A coarse-grained mafic rock is

- A) peridotite.
- B) very rare.
- C) gabbro.
- D) basalt.

Answer: <https://biology-forums.com/index.php?topic=417170>

Question 1383

For what percent of Earth's history have geologic processes been studied?

- A) 0.000 000 04
- B) 0.000 004
- C) 0.000 04
- D) 0.000 000 4

Answer: <https://biology-forums.com/index.php?topic=418339>

Question 1384

Identify the following igneous rock based on its texture and mineral content, a coarse-grained rock with 0 % Quartz, 0 % Potassium Feldspar, 60 % Plagioclase Feldspar, 12 % Biotite, 0 % Muscovite, 16 % Amphibole, 12 % Pyroxene, 0 % Olivine?

- A) peridotite
- B) gabbro
- C) granite
- D) diorite
- E) tonalite

Answer: <https://biology-forums.com/index.php?topic=417189>

Question 1385

Plankton that cause poisonous red tide are nourished by

- A) calcium.
- B) iron.

- C) potassium.
- D) carbon.

Answer: <https://biology-forums.com/index.php?topic=417947>

Question 1386

Transform boundaries

- A) involve destruction of crust as one plate slips beneath another.
- B) involve no destruction or creation of new crust.
- C) involve creation of crust as two plates collide.
- D) occur near subduction zones.

Answer: <https://biology-forums.com/index.php?topic=418344>

Question 1387

A steep-sided amphitheater at the head of a glacially eroded valley is called a

- A) horn.
- B) cirque.
- C) tarn.
- D) roche moutonee.

Answer: <https://biology-forums.com/index.php?topic=417471>

Question 1388

What technology was used to determine if Airy's or Pratt's theory about mountain elevations was correct?

- A) seismic data
- B) deep-drilling cores
- C) lab analyses of composition of rock samples
- D) density measurements

Answer: <https://biology-forums.com/index.php?topic=417821>

Question 1389

Judge the following sentence according to the criteria given below: Deserts are arid regions with little precipitation because high temperatures lead to the evaporation of water.

- A) The assertion is incorrect but the reason is correct.
- B) The assertion is correct but the reason is incorrect.
- C) Both the assertion and the reason are incorrect.
- D) The assertion and the reason are both correct, but the reason is invalid.
- E) The assertion and the reason are both correct, and the reason is valid.

Answer: <https://biology-forums.com/index.php?topic=417972>

Question 1390

Sedimentary rocks form

- A) from magma on the surface.
- B) deep within Earth's crust.
- C) at elevated temperatures and low pressures.
- D) at Earth's surface environment.

Answer: <https://biology-forums.com/index.php?topic=416873>

Question 1391

A dark grain that is attracted to a magnet is probably

- A) aragonite.
- B) calcite.
- C) magnetite.
- D) quartz.

Answer: <https://biology-forums.com/index.php?topic=416909>

Question 1392

Which statement is not true about the principle of faunal succession?

- A) Fossils of related organisms change in the same fashion in progressively younger rocks every place they occur.

- B) Fossils of different organisms first appear at different times.
C) Fossil species disappear from the rock record everywhere when they become extinct and do not reappear in younger rocks.
D) Fossils that appear at different places and over different eras are of different species.

Answer: <https://biology-forums.com/index.php?topic=417771>

Question 1393

- A sea-level rise of 1 centimeter commonly causes
A) more than 1.5 meters of shoreline sedimentation.
B) less than 1 meter of shoreline retreat.
C) less than 1 meter of shoreline sedimentation.
D) more than 1.5 meters of shoreline retreat.

Answer: <https://biology-forums.com/index.php?topic=417696>

Question 1394

- The _____ is an example of isostatic adjustment causing an earthquake.
A) north slope of Alaska
B) San Andreas Fault
C) New Madrid region
D) great tsunami of December 2004

Answer: <https://biology-forums.com/index.php?topic=417982>

Question 1395

- True or False: A characteristic number of neutrons defines each element.
A) True
B) False

Answer: <https://biology-forums.com/index.php?topic=417921>

Question 1396

- Which of the following states has the most limestone and gypsum karst topography?
A) Rhode Island
B) Idaho
C) New Mexico
D) Washington

Answer: <https://biology-forums.com/index.php?topic=417197>

Question 1397

- How are added minerals most often found in soil?
A) in crystal form
B) in veins or stripes of continuous crystals or powder
C) clinging to roots of plants
D) coated on fragments of existing materials

Answer: <https://biology-forums.com/index.php?topic=418055>

Question 1398

- In the following quote, who and what was James Huxley criticizing?
"Mathematics may be compared to a mill of exquisite workmanship, which grinds you stuff of any degree of fineness; but nevertheless, what you get out depends on what you put in. . . so pages of formulae will not get a definite result of loose data."
A) He thought that Earth's age, as calculated from biblical stories, was too young.
B) He thought that John Joly's salty water calculations were too fastidious.
C) He thought that William Thomson's heat-based model was inaccurate.
D) He thought that Hutton's time scale, based on sedimentation, was too slow.

Answer: <https://biology-forums.com/index.php?topic=417832>

Question 1399

- The depth below which there is no wave motion is
A) the same throughout the ocean.
B) equal to one-half the wavelength.

- C) very deep near the poles.
D) close to the surface near the equator.

Answer: <https://biology-forums.com/index.php?topic=417741>

Question 1400

All of the following are common cementing agents except

- A) hematite.
B) feldspar.
C) quartz.
D) calcite.

Answer: <https://biology-forums.com/index.php?topic=417395>

Question 1401

Which feature separates an overlayer of volcanic rock from underlying metamorphic rocks?

- A) a disconformity
B) an angular unconformity
C) an unconformity
D) a nonconformity

Answer: <https://biology-forums.com/index.php?topic=417820>

Question 1402

What additional evidence did William Smith utilize to make his correlations?

- A) chemical composition of coal seams in different mines
B) chemical compositions of rock layers in the same mine
C) fossils in different layers in the same mine
D) fossils in the same layers in different mines

Answer: <https://biology-forums.com/index.php?topic=417784>

Question 1403

Which condition is not important when precipitating new mineral crystals from dissolved sediments?

- A) element composition
B) temperature
C) duration the sediments are in solution
D) pressure

Answer: <https://biology-forums.com/index.php?topic=416948>

Question 1404

Could a warming trend in Colorado be caused by currents from the Pacific Ocean?

- A) Yes; air currents can move over the mountains.
B) No; Colorado is too far away from the ocean.
C) No; ocean currents have a cooling effect.
D) No; the warming effect of the sun overrides the effect of ocean currents on local Colorado weather.

Answer: <https://biology-forums.com/index.php?topic=418325>

Question 1405

Why don't electrons contribute anything to the mass of an atom?

Answer: <https://biology-forums.com/index.php?topic=417058>

Question 1406

A fault with horizontal displacement and no vertical displacement is called a(n) _____ -slip fault.

- A) lateral
B) strike
C) dip
D) oblique

Answer: <https://biology-forums.com/index.php?topic=417481>

Question 1407

Which region currently presents the most mysteries to scientists?

- A) discontinuities at 410 and 660 km
- B) the low velocity zone in the upper mantle
- C) the transition zone
- D) the lowermost mantle

Answer: <https://biology-forums.com/index.php?topic=418082>

Question 1408

Small (< 50,000 square kilometers) broad unconfined glaciers are called

- A) ice sheets.
- B) ice caps.
- C) crevasse glaciers.
- D) valley glaciers.

Answer: <https://biology-forums.com/index.php?topic=417456>

Question 1409

Identify the physical mineral property described.

"The fine-grained nature of the powdery residue results in a more reliable observed color."

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

Answer: <https://biology-forums.com/index.php?topic=416795>

Question 1410

In the field, a student finds a sedimentary rock that contains angular fragments of white rock embedded in a darker rock. This rock is possibly

- A) arkose sandstone.
- B) breccia.
- C) lithic mudstone.
- D) conglomerate.

Answer: <https://biology-forums.com/index.php?topic=417479>

Question 1411

Secondary (S) waves have all of the following characteristics except

- A) body wave.
- B) arrives second at seismic stations.
- C) causes alternating squeezing and stretching of the material as the wave passes.
- D) can't pass through gases and liquids.

Answer: <https://biology-forums.com/index.php?topic=418127>

Question 1412

The regolith and soil are underlain by the

- A) E horizon.
- B) Bedrock.
- C) A horizon.
- D) B horizon.
- E) O horizon.

Answer: <https://biology-forums.com/index.php?topic=418119>

Question 1413

How is karst topography defined?

- A) rock features and drainage patterns formed by dissolution of rock
- B) rock features formed by sedimentation and precipitation from streams and ground water
- C) rock features and drainage patterns formed by flowing lava
- D) rock features and drainage patterns formed by glacier action and deposition

Answer: <https://biology-forums.com/index.php?topic=417210>

Question 1414

Which is not a factor that induces solids to flow?

- A) high temperatures
- B) stress
- C) time
- D) vibration

Answer: <https://biology-forums.com/index.php?topic=417113>

Question 1415

Which of the following did not happen to Earth's original rocks?

- A) They were recycled in the rock cycle.
- B) They were consumed by erosion.
- C) They formed the base rock for some of Earth's highest mountains.
- D) They were consumed by plate tectonics.

Answer: <https://biology-forums.com/index.php?topic=418191>

Question 1416

True or False: Oceanic crustal rocks and continental crustal rocks occurring at the same depth have similar compositions but different mineralogies.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418108>

Question 1417

What is the base level of a stream?

- A) the elevation at the headwaters
- B) the elevation where it touches the bedrock
- C) the elevation at its lowest point
- D) the elevation along a smooth concave-up profile

Answer: <https://biology-forums.com/index.php?topic=416868>

Question 1418

Where is the hanging wall in a fault?

Answer: <https://biology-forums.com/index.php?topic=417536>

Question 1419

Caverns form in all of the following rock types except

- A) igneous and metamorphic rocks.
- B) sedimentary rocks.
- C) metamorphic rocks.
- D) igneous and sedimentary rocks.
- E) igneous rocks.

Answer: <https://biology-forums.com/index.php?topic=417274>

Question 1420

The lava at Kilauea volcano in Hawaii erupts at a temperature of approximately _____ degrees Celcius.

- A) 1000
- B) 2000
- C) 100
- D) 500

Answer: <https://biology-forums.com/index.php?topic=417080>

Question 1421

10 Cracks where displacement of rock has occurred are called

- A) dikes.
- B) faults.
- C) sills.

D) joints.

Answer: <https://biology-forums.com/index.php?topic=417472>

Question 1422

Volcanic eruptions can trigger lahars that may occur long after the volcanic activity has ceased. The simplest definition of a lahar is?

- A) a debris flow
- B) a snow avalanche
- C) a flood
- D) magma movement

Answer: <https://biology-forums.com/index.php?topic=418214>

Question 1423

The statement that certain meteorites resemble the composition of the early mantle is

- A) an observation.
- B) a hypothesis.
- C) a theory.
- D) an assumption.

Answer: <https://biology-forums.com/index.php?topic=418274>

Question 1424

Put the following events in order from those that occur with the greatest driving force to those that occur with the least driving force and/or have the least effect on hillside stability. 1. erosion 2. magma intrusion 3. volcanic eruption 4. liquefaction 5. earthquake

- A) 3, 4, 5, 2, 1
- B) 2, 1, 4, 5, 3
- C) 4, 5, 2, 3, 1
- D) 1, 2, 3, 5, 4

Answer: <https://biology-forums.com/index.php?topic=418230>

Question 1425

What does Airy's model of isostasy describe better than Pratt's model?

- A) elevation differences between oceans and continents
- B) fault block elevations
- C) formation of rift valleys in continents
- D) elevation differences within areas of continental crust

Answer: <https://biology-forums.com/index.php?topic=417829>

Question 1426

Oceanic crust consists of mostly

- A) quartz-rich plutonic and metamorphic rocks.
- B) quartz-rich sandstones.
- C) mafic igneous rocks.
- D) olivine-rich peridotite.

Answer: <https://biology-forums.com/index.php?topic=418145>

Question 1427

What is the problem with using wood-block-bathtub experiments to explain the isostasy of Earth's crust?

- A) It only works for sections of Earth's crust less than 8 km thick.
- B) It only works for sections of Earth's crust greater than 80 km thick.
- C) Bathtub water does not behave like the mantle.
- D) Wood is not a reasonable approximation for crust behavior.

Answer: <https://biology-forums.com/index.php?topic=417800>

Question 1428

A small, unconfined glacier is known as

- A) a moraine.
- B) an ice sheet.
- C) an ice cap.

D) a valley glacier.

Answer: <https://biology-forums.com/index.php?topic=417309>

Question 1429

Significant pumping of ground water can cause land subsidence which is a result of

- A) discharge.
- B) recharge.
- C) fracturing.
- D) compaction.

Answer: <https://biology-forums.com/index.php?topic=417249>

Question 1430

What was the cause of modern-day confusion over the location of the ancient city of Troy?

- A) shoreline subsidence
- B) erosion and widening of an estuary
- C) shoreline uplift
- D) sedimentation of an estuary

Answer: <https://biology-forums.com/index.php?topic=417667>

Question 1431

The most common stimuli that abruptly imbalance driving and resisting forces governing the occurrence of mass movements include all of the following except

- A) slope failures during volcanic eruptions.
- B) ground shaking during earthquakes.
- C) mountain building during plate convergence.
- D) addition of water by rainfall or snowmelt.

Answer: <https://biology-forums.com/index.php?topic=418298>

Question 1432

What is the name of the process that produces veins of valuable ore?

- A) heated concentration
- B) volcanic eruption
- C) fractional distillation
- D) mafic compression

Answer: <https://biology-forums.com/index.php?topic=417281>

Question 1433

The presence of a thin film of water on the surface of sand grains results in _____ angle of repose.

- A) no change in the
- B) a lower
- C) a higher

Answer: <https://biology-forums.com/index.php?topic=418293>

Question 1434

True or False: A genetic classification scheme only requires good powers of observation.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417004>

Question 1435

The lower snowline of the past meant that

- A) there were glaciers at lower latitudes.
- B) there were fewer glaciers.
- C) glaciers existed at lower altitudes.
- D) on average, there was less snow than there is today.

Answer: <https://biology-forums.com/index.php?topic=417312>

Question 1436

Which mineral gets weathered to weaken uplifted metamorphic rock?

- A) serpentine
- B) argentine
- C) silica
- D) clay

Answer: <https://biology-forums.com/index.php?topic=418250>

Question 1437

Where does most mountain-building activity actually occur on Earth?

- A) Anywhere on Earth where the necessary forces are evident.
- B) Mountain pressures that build up end up forming mountains in the middle of the tectonic plates.
- C) In the inner mantle, where force causes pressure to build up.
- D) At tectonic plate boundaries.

Answer: <https://biology-forums.com/index.php?topic=418342>

Question 1438

A uranium-lead age determined from a zircon crystal removed from a sandstone would reflect the time elapsed since the _____ of the zircon.

- A) deposition
- B) cementation
- C) crystallization
- D) erosion

Answer: <https://biology-forums.com/index.php?topic=417945>

Question 1439

Evaluate this statement: "Earthquake damage depends primarily on the magnitude of the quake."

- A) This statement is false; the most important factor in earthquake damage is the quality of building materials used.
- B) This statement is true.
- C) This statement is true, but earthquake damage also depends on the proximity to the epicenter and the characteristics of materials through which the earthquake passes.
- D) This statement is false; the most important factor in earthquake damage is the location's proximity to the epicenter.

Answer: <https://biology-forums.com/index.php?topic=417442>

Question 1440

What is a similarity between oceanic and continental crust?

- A) composition of the crust
- B) depth
- C) composition of the mantle underneath
- D) density

Answer: <https://biology-forums.com/index.php?topic=418019>

Question 1441

True or False: Volcanic is a product of combustion.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417214>

Question 1442

Which of the following is not a factor that is considered when comparing the strength of the oceanic and continental lithosphere?

- A) varying pressure under the ocean and the continents
- B) varying thickness of the continental and oceanic crust
- C) laboratory rock-strength data
- D) chemical composition and water content

Answer: <https://biology-forums.com/index.php?topic=417397>

Question 1443

Why is there a greater concentration of calcite, halite, and gypsum in desert soils than in other soils?

- A) The sand of the desert contains more of these minerals than soil-forming rocks in other regions do.
- B) The dry earth allows minerals to come up to the surface while in wetter soils they would remain lower.
- C) The soils of the desert do not contain pores large enough to wash these minerals away when water comes in the form of rain.
- D) The dry climate allows minerals to precipitate from solution while in wetter soils they would filter away.

Answer: <https://biology-forums.com/index.php?topic=418069>

Question 1444

Which mineral property depends on the smoothness of the mineral surface at the atomic scale?

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

Answer: <https://biology-forums.com/index.php?topic=416968>

Question 1445

Wind speed is most closely related to

- A) temperature.
- B) landform shapes.
- C) humidity.
- D) pressure.

Answer: <https://biology-forums.com/index.php?topic=417828>

Question 1446

The largest reservoir of water on, below or above Earth's surface is/are

- A) the oceans.
- B) water-bearing rocks.
- C) lakes and rivers.
- D) the atmosphere.

Answer: <https://biology-forums.com/index.php?topic=418316>

Question 1447

Contrast volcanic rock and sandstone.

- A) Sandstone has crystals but volcanic rock is amorphous.
- B) Volcanic rock's crystal cement is glass-like, while sandstone's cement is opaque.
- C) Volcanic rock may be a mosaic of minerals, but sandstone usually forms from a single type of sand.
- D) Sandstone's crystal cement is made of minerals precipitated out of water, while volcanic rock's crystals formed from molten rock.

Answer: <https://biology-forums.com/index.php?topic=416917>

Question 1448

A synonym of volcanic is

- A) extrusive.
- B) lava.
- C) intrusive.
- D) plutonic.

Answer: <https://biology-forums.com/index.php?topic=417118>

Question 1449

Earth has

- A) a gradual inward transition from low-density to high-density rock.
- B) a distinct concentration of high-density material near the center.
- C) a gradual inward transition from high-density to low-density rock.
- D) a distinct concentration of low-density material near the center.

Answer: <https://biology-forums.com/index.php?topic=418157>

Question 1450

What effect do the chemical reactions of groundwater have on the porosity and permeability of aquifers?

- A) Chemical reactions both increase and decrease the permeability and porosity
- B) Chemical reactions increase the permeability and porosity
- C) Chemical reactions decrease the permeability and porosity
- D) Chemical reactions neither increase nor decrease the permeability and porosity

Answer: <https://biology-forums.com/index.php?topic=417153>

Question 1451

Choose the option that correctly arranges the steps involved in the formation of a nonconformity.

1. Metamorphic and plutonic rocks form below the surface.
2. Sedimentary rock is deposited on the eroded surface.
3. Erosion removes overlying rock.

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

Answer: <https://biology-forums.com/index.php?topic=417814>

Question 1452

How many times Earth's atmospheric pressure is required to produce the more closely packed crystal structure of diamond from graphite?

- A) 25
- B) 2,500
- C) 25,000
- D) 25,000,000

Answer: <https://biology-forums.com/index.php?topic=417655>

Question 1453

Which set of data relating to the 1991 collapse of New Zealand's Mount Cook is correct?

- A) The mountain was shortened by 60 m, the debris traveled for 50 km, and the avalanche traveled at speeds up to 100 km/h.
- B) The mountain was shortened by 100 m, the debris traveled for 75 km, and the avalanche traveled at speeds up to 800 km/h.
- C) The mountain was shortened by 2 m, the debris traveled for 0.85 km, and the avalanche traveled at speeds up to 20 km/h.
- D) The mountain was shortened by 10 m, the debris traveled for 7.5 km, and the avalanche traveled at speeds up to 200 km/h.

Answer: <https://biology-forums.com/index.php?topic=418242>

Question 1454

Evaluate the statement. "Convection occurs because of conduction and radiation at the boundaries of a liquid."

- A) This statement is false and should say, "Conduction occurs because of convection and radiation at the boundaries of a liquid."
- B) This statement is true in the laboratory but not true for Earth processes.
- C) This statement is true in the laboratory and for Earth processes.
- D) This statement is false because the three types of heat transfer operate separately.

Answer: <https://biology-forums.com/index.php?topic=417105>

Question 1455

The type of gravity-driven, downslope movement where the material moves very, very slowly as a high-viscosity fluid is called

- A) slump.
- B) fall.
- C) creep.
- D) slide.
- E) flow.

Answer: <https://biology-forums.com/index.php?topic=418258>

Question 1456

What is bedrock?

- A) rock from the layer closest to the surface
- B) rock that is from a particular bedding layer
- C) a large continuous occurrence of rock
- D) rock that is weathered and loose

Answer: <https://biology-forums.com/index.php?topic=418035>

Question 1457

What is a playa?

- A) a lake above 8,000 feet in elevation
- B) a salty, shallow lake
- C) a lake caused by a human dam
- D) a lake caused by a natural dam

Answer: <https://biology-forums.com/index.php?topic=416943>

Question 1458

"Carbon dioxide plays a vital role in dissolving and precipitation of rocks in the formation of karst topography." Evaluate this statement.

- A) It is false. The statement should read sulfur dioxide, not carbon dioxide.
- B) It is false. Carbon dioxide does dissolve in water to form acid, but only at the surface where water is exposed to air.
- C) It is partially true. Carbon dioxide does form acid to aid in dissolving limestone but has nothing to do with precipitation of rocks.
- D) It is true. Carbon dioxide plays a vital role in these processes.

Answer: <https://biology-forums.com/index.php?topic=417204>

Question 1459

What would happen if you slam on your brakes while moving 60 MPH in a car?

Answer: <https://biology-forums.com/index.php?topic=418030>

Question 1460

What does not happen as ground water moves toward the surface?

- A) It mixes with shallow water with different chemistry.
- B) It solidifies.
- C) It reacts with near-surface rocks.
- D) It cools slightly.

Answer: <https://biology-forums.com/index.php?topic=417171>

Question 1461

A rock that formed by recrystallization as a result of heating adjacent to a magma intrusion would be classified as a _____ metamorphic rock.

- A) regional
- B) plutonic
- C) contact
- D) hydrothermal

Answer: <https://biology-forums.com/index.php?topic=416852>

Question 1462

Which is not a common characteristic of an outwash stream?

- A) extremely fast flow
- B) a heavy sediment load
- C) a braided channel pattern
- D) a milky color

Answer: <https://biology-forums.com/index.php?topic=417378>

Question 1463

How does flow velocity relate to discharge? How does area relate to discharge?

Answer: <https://biology-forums.com/index.php?topic=417033>

Question 1464

If a rock containing kyanite, sillimanite, and andalusite were to undergo an increase in pressure what must happen to temperature in order for that rock to continue to have stable kyanite, sillimanite, and andalusite?

- A) it is impossible for it to continue to have stable kyanite, sillimanite, and andalusite
- B) temperature must decrease
- C) temperature must stay the same
- D) temperature must increase

Answer: <https://biology-forums.com/index.php?topic=417716>

Question 1465

How can the age of a sample be determined from a graph of daughter and parent atoms versus time?

- A) The intersection of the daughter and parent atom lines will show the age.
- B) The slope can be interpreted to find the age.
- C) The ratio of daughter to parent atoms will show the age.
- D) The y-intercept will show the amount of sample present in a certain mass.

Answer: <https://biology-forums.com/index.php?topic=417854>

Question 1466

Name two features defined by the principle of cross-cutting relationships.

- A) dikes and sills
- B) faults and dikes
- C) convergent tectonic plates and sills
- D) convergent tectonic plates and faults

Answer: <https://biology-forums.com/index.php?topic=417762>

Question 1467

The oceanic crust has an average age of _____ and a maximum age of _____.

- A) 200 million; 400 million
- B) 80 million; 200 million
- C) 90 million; 300 million
- D) 100 million; 180 million

Answer: <https://biology-forums.com/index.php?topic=418241>

Question 1468

Although spectacular collisions like comet Shoemaker-Levy 9 impact with Jupiter in 1994 provide evidence that planetary accretion is still occurring, near all the mass of the solar nebula now resides in the sun and planets. When did Earth, for the most part, attain its current mass and volume?

- A) it hasn't
- B) 4,500 million years ago
- C) 65 million years ago
- D) 12,000 years ago

Answer: <https://biology-forums.com/index.php?topic=418307>

Question 1469

Which of the following is not a factor that increases the thickness of the crust?

- A) magmatic additions
- B) flexure below thrust faults
- C) flow in lower crust
- D) volcano growth

Answer: <https://biology-forums.com/index.php?topic=417877>

Question 1470

What action would geologists take when creating a Modified Mercalli Intensity map of an earthquake?

- A) take core samples at several spots and from different distances from the epicenter
- B) interview people who experienced the quake
- C) analyze seismic instrument readouts
- D) assess financial costs of rebuilding roads, buildings, and public areas in the quake zone

Answer: <https://biology-forums.com/index.php?topic=417433>

Question 1471

Which of the following would not be a major factor leading to weakening along faults and ultimately earthquakes?

- A) glacial rebound
- B) running water
- C) tree roots
- D) glacial advance

Answer: <https://biology-forums.com/index.php?topic=417850>

Question 1472

Is it good to control flooding with dams?

Answer: <https://biology-forums.com/index.php?topic=417054>

Question 1473

Which factor must increase in order for a river to pick up larger particles?

- A) viscosity
- B) water depth
- C) velocity
- D) shear stress

Answer: <https://biology-forums.com/index.php?topic=416835>

Question 1474

Judge the following sentence according to the criteria given below. Earth is long overdue for a magnetic reversal because during the past 15 million years Earth's magnetic field reversed every 200,000 years, on average, and the last reversal was 780,000 years ago.

- A) The assertion and the reason are both correct, and the reason is valid.
- B) The assertion and the reason are both correct, but the reason is invalid.
- C) The assertion is correct but the reason is incorrect.
- D) Both the assertion and the reason are incorrect.
- E) The assertion is incorrect but the reason is correct.

Answer: <https://biology-forums.com/index.php?topic=417283>

Question 1475

If daughter isotopes are lost from a mineral after radioactive decay begins the calculated age of the mineral in questions will be

- A) no age can be calculated.
- B) too old.
- C) too young.
- D) correct.

Answer: <https://biology-forums.com/index.php?topic=417938>

Question 1476

The presence of ultramafic lava flows containing peridotite suggests that three billion years ago

- A) there were more volcanoes than there are today.
- B) the mantle was deeper than it is today.
- C) volcanoes were more violent than they are today.
- D) Earth was hotter than it is today.

Answer: <https://biology-forums.com/index.php?topic=418235>

Question 1477

Soil horizons are distinguished from one another by

- A) soil color and mineral composition.
- B) particle size and soil color.
- C) particle type and mineral composition.
- D) particle size and color.

Answer: <https://biology-forums.com/index.php?topic=418026>

Question 1478

Geologists know that radioactive dating methods are valid

- A) because the instruments always work well when performing laboratory tests.
- B) because they have been compared with dates determined by other methods and have the same exact dates.
- C) because they are consistent with proposed theories.
- D) because they have been compared with dates determined by other methods and have been found to correlate well.

Answer: <https://biology-forums.com/index.php?topic=417858>

Question 1479

How do environmental scientists deal with chemicals that sink to the bottom of an aquifer?

- A) They add a coagulating chemical to make sure the chemicals solidify and remain deep in the Earth.
- B) They create a cone of depression some distance away to suck the contaminant in an opposite direction.
- C) They pump them up through a well drilled to the bottom of the aquifer.
- D) They leave them alone because the chemicals have not mixed with the drinking water supply.

Answer: <https://biology-forums.com/index.php?topic=417184>

Question 1480

Minerals are added to the B horizon primarily from the

- A) C and E horizons.
- B) A and E horizons.
- C) E and O horizons.
- D) A and O horizons.

Answer: <https://biology-forums.com/index.php?topic=418067>

Question 1481

What evidence would lead geologists to conclude that granite underlying sedimentary rock is older than the sedimentary rock?

- A) pebbles of the granite included in the bedding of the sedimentary rock
- B) contact metamorphism between the granite and the deepest sedimentary bedding
- C) completely horizontal bedding of the sedimentary rock
- D) fragments of the sedimentary rock included in the granite

Answer: <https://biology-forums.com/index.php?topic=417766>

Question 1482

How is Earth's magnetic field oriented?

- A) almost parallel to the equator
- B) almost parallel to the rotation axis
- C) almost perpendicular to the equator
- D) almost perpendicular to the rotation axis

Answer: <https://biology-forums.com/index.php?topic=417161>

Question 1483

One reason that oceanic crust is stronger than continental crust is that

- A) continental crust contains more water and water-bearing minerals.
- B) the deeper oceanic crust experiences higher temperatures.
- C) oceanic crust contains more water and water-bearing minerals.
- D) oceanic crust is thicker than continental crust.

Answer: <https://biology-forums.com/index.php?topic=417400>

Question 1484

The current angular distance between the magnetic and geographic poles is _____ degrees.

- A) 0
- B) 18
- C) 36
- D) 54
- E) 90

Answer: <https://biology-forums.com/index.php?topic=417275>

Question 1485

What was the reason for installing a worldwide network of seismometers in the 1950s and 1960s?

- A) to save human lives by predicting volcanic eruptions and earthquakes
- B) to study plate tectonic theory
- C) to study mine blasts
- D) to monitor underground nuclear bomb testing

Answer: <https://biology-forums.com/index.php?topic=418056>

Question 1486

_____ has the most rivers with high sediment loads.

- A) Southeast Asia/China
- B) Europe/Russia
- C) North America
- D) South America

Answer: <https://biology-forums.com/index.php?topic=416829>

Question 1487

Evaluate this statement. "Victims of the Indian Ocean tsunami on December 26, 2004, might have been saved if they realized that an extremely low water level at the shore was the trough of a huge wave."

- A) This statement is true.
- B) This statement is false. Victims would not have had time to run before the wave hit.
- C) This statement is false. Tsunamis have very long wavelengths but relatively short wave heights.
- D) This statement is partially true. There is a low water level before a tsunami hits, but it is caused by the rolling movement of the wave, not a wave trough.

Answer: <https://biology-forums.com/index.php?topic=417609>

Question 1488

True or False: The potential energy of water decreases as it flows downhill in stream channels to the ocean.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418376>

Question 1489

How many hot spots are there on Earth?

- A) 4
- B) 40
- C) 400
- D) 4000

Answer: <https://biology-forums.com/index.php?topic=417635>

Question 1490

Which word best describes volcanic rock?

- A) intergrown
- B) transparent
- C) fragmented
- D) cemented

Answer: <https://biology-forums.com/index.php?topic=416921>

Question 1491

How is an inventory of past slide movement usually obtained for input into GIS?

- A) A geologist looks at aerial photographs of the area.
- B) A team of geologists makes surface observations and takes core samples to analyze in the lab for evidence of past movement.
- C) A geologist walks the entire area and makes detailed surface observations.
- D) Past recorded seismographs are analyzed by computer technology.

Answer: <https://biology-forums.com/index.php?topic=418238>

Question 1492

What is the main factor that determines elevation?

- A) age of rock, such as amount of erosion
- B) mantle density
- C) history of rock, such as ice ages and volcanic action
- D) crust type

Answer: <https://biology-forums.com/index.php?topic=417794>

Question 1493

Which mineral is not common in the igneous rock exposed at Yosemite National park?

- A) biotite

- B) calcite
- C) quartz
- D) feldspar

Answer: <https://biology-forums.com/index.php?topic=417083>

Question 1494

Motion in the atmosphere is called

- A) climate.
- B) wave.
- C) convection.
- D) wind.

Answer: <https://biology-forums.com/index.php?topic=417950>

Question 1495

True or False: The scientific method is a step-by-step cookbook recipe for doing science.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418362>

Question 1496

A student in the field is taking observational notes about a stream and postulates, "This stream must be shallower and slower downstream." Evaluate this statement.

- A) The statement is false because streams always deepen as they proceed downstream.
- B) The statement is probably false because discharge always increases as streams proceed downstream.
- C) The statement could be true if the stream was also narrower.
- D) The statement is probably true, especially if the stream has a sandy bottom.

Answer: <https://biology-forums.com/index.php?topic=416865>

Question 1497

Which factor has the least effect on the shape of the overall geothermal gradient?

- A) type and composition of rock in the mantle
- B) increasing temperature with compression of rock at high pressure
- C) heating of the lower mantle by the hotter core
- D) loss of heat at the surface to the hydrosphere, atmosphere, and space

Answer: <https://biology-forums.com/index.php?topic=418086>

Question 1498

While looking at a cliff, you observe that three visible layers of rocks are tilted about 30 degrees. There are four straight horizontal layers above the tilted layers. Which two principles suggest that the tilted layers are older than the horizontal layers?

- A) the principle of inclusions and the principle of original horizontality
- B) the principle of original horizontality and the principle of superposition
- C) the principle of cross-cutting relationships and the principle of superposition
- D) the principle of superposition and the principle of inclusions

Answer: <https://biology-forums.com/index.php?topic=417759>

Question 1499

A classification scheme that grouped plutonic and metamorphic rocks together and sedimentary and volcanic rocks together would be based on

- A) the average grain size of the rocks.
- B) the bulk composition of the rocks.
- C) the location of the rock's formation.
- D) the presence of glass in the rocks.

Answer: <https://biology-forums.com/index.php?topic=416831>

Question 1500

Changes in which property of a parcel of rock causes convection in mantle rock?

- A) heat content
- B) water content

- C) temperature
- D) pressure

Answer: <https://biology-forums.com/index.php?topic=417134>

Question 1501

Which type of desert involves an air mass moving outward to the ocean?

- A) polar desert
- B) rain-shadow desert
- C) subtropical desert
- D) coastal desert

Answer: <https://biology-forums.com/index.php?topic=417872>

Question 1502

Which is not a factor that leads geologists to expect that convection in the mantle is likely?

- A) The thickness and mass of the mantle are huge.
- B) Viscosity beneath the lithosphere is lower because the rock is close to its melting temperature.
- C) Some of the lithosphere is denser than the asthenosphere.
- D) Viscosity in the lithosphere is high.

Answer: <https://biology-forums.com/index.php?topic=417120>

Question 1503

_____ content in most magmas ranges from 45 to almost 80 percent by weight.

- A) Gas
- B) Silicon
- C) Silica
- D) Oxygen

Answer: <https://biology-forums.com/index.php?topic=417138>

Question 1504

Where is arsenic most likely to be common in drinking water?

- A) near industrial plants
- B) where water flows through volcanic rocks
- C) near large batholiths of metamorphic rock
- D) where water flows across the surface for a long distance

Answer: <https://biology-forums.com/index.php?topic=417159>

Question 1505

How did William Smith produce a complete picture of the layers in a deep section of local rocks when the layer was not actually exposed in any one place?

- A) He drew correlations between different parts of the deep section that were exposed in nearby locations.
- B) He applied his knowledge of the past history of the local geology and matched up the fossils.
- C) He made inferences based upon his observations and knowledge of a complete section of exposed rock 150 km away.
- D) He utilized the chemical compositions of rocks that were brought up by a well-driller's core sampler.

Answer: <https://biology-forums.com/index.php?topic=417787>

Question 1506

Sticky, clumping soil contains

- A) silica minerals.
- B) organic matter.
- C) excess water.
- D) clay minerals.

Answer: <https://biology-forums.com/index.php?topic=418020>

Question 1507

How much material is accreted to Earth from outer space on a daily basis?

- A) 1,000,000 dust particles per day
- B) 10 grams per day

- C) 10,000 liters per day
- D) 100,000 kg per day

Answer: <https://biology-forums.com/index.php?topic=418306>

Question 1508

Which part of the Atlantic Ocean is the youngest?

Answer: <https://biology-forums.com/index.php?topic=417770>

Question 1509

Which is not a common form of calcium addition to soil?

- A) dust
- B) acidic dissolution
- C) rain
- D) parent rock

Answer: <https://biology-forums.com/index.php?topic=418095>

Question 1510

True or False: The major problem with geologic correlations is that some unconformities extend around the entire planet.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417910>

Question 1511

The difference between a groin and a jetty is that

- A) a jetty is longer than a groin.
- B) a groin is perpendicular to the shoreline and a jetty is parallel to the shoreline.
- C) a groin is higher than a jetty.
- D) a jetty is perpendicular to the shoreline and a groin is parallel to the shoreline.

Answer: <https://biology-forums.com/index.php?topic=417769>

Question 1512

Which well is least likely to need pumping?

- A) any well in a limestone aquifer
- B) a well that is drilled deep in an unconfined sandstone aquifer
- C) a well that is drilled below a confining shale layer to a confined sandstone aquifer
- D) a well that reaches water very near the surface at an unconfined sand and gravel aquifer

Answer: <https://biology-forums.com/index.php?topic=417126>

Question 1513

Which factor contributes least to the dissolving of subterranean limestone?

- A) abrasive rubbing action of pebbles
- B) general acidity
- C) plant roots release carbon dioxide underground
- D) percolating ground water

Answer: <https://biology-forums.com/index.php?topic=417193>

Question 1514

Read carefully through the following sentence, and decide which of the options is correct. Most mountain belts form near convergent plate boundaries where crust thickens by tensional shortening and by intrusion and crystallization of magma.

- A) The word "tensional" should be replaced by "compressional".
- B) The word "near" should be replaced by "far from".
- C) The word "convergent" should be replaced by "divergent".
- D) The word "crust" should be replaced by "mantle".

Answer: <https://biology-forums.com/index.php?topic=417992>

Question 1515

Where on earth would you go to travel the shortest distance and still encircle the globe?

Answer: <https://biology-forums.com/index.php?topic=418024>

Question 1516

Does the "Ring of Fire" include any part of the United States? Where?

Answer: <https://biology-forums.com/index.php?topic=417542>

Question 1517

The formation of glacial ice forms at

- A) the same depth everywhere because the pressure of metamorphism cannot vary.
- B) the same depths as long as the snowfall is constant in different regions.
- C) different depths because the pressure of metamorphism can vary.
- D) different depths depending on the how it forms.

Answer: <https://biology-forums.com/index.php?topic=417505>

Question 1518

This mineral is a common ore of copper.

- A) serpentine
- B) garnet
- C) chalcopyrite
- D) hematite

Answer: <https://biology-forums.com/index.php?topic=417038>

Question 1519

According to the elastic rebound theory, what may occur before a major earthquake?

- A) deformation and bending of rock into synclines
- B) deformation of rock in shear directions and bending rock
- C) minor shocks
- D) deformation and bending of rock into anticlines

Answer: <https://biology-forums.com/index.php?topic=417415>

Question 1520

A glacier undergoes _____ deformation in its upper part and _____ in its lower part.

- A) brittle, brittle
- B) plastic, plastic
- C) brittle, plastic
- D) plastic, brittle

Answer: <https://biology-forums.com/index.php?topic=417516>

Question 1521

True or False: Chemical weathering causes rocks to disintegrate into smaller rocks or into even smaller grains.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=416885>

Question 1522

True or False: According to the Continental Drift hypothesis the continents and ocean basins on the same plate move together.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417689>

Question 1523

When a wave reaches shore it piles a mass of water against the coast because water moves slowly

- A) towards the poles.
- B) in the direction of wave movement.
- C) away from the shoreline.
- D) towards the equator.

Answer: <https://biology-forums.com/index.php?topic=417743>

Question 1524

How do we track the earth's magnetic field back through time?

Answer: <https://biology-forums.com/index.php?topic=417776>

Question 1525

True or False: The higher rocks are uplifted as mountains, the greater the work required in overcoming the downward gravitational pull.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=418374>

Question 1526

Which of the following is not a reason that temperature increases with depth?

- A) Heat conducts outward from the core into the lower mantle.
- B) The outer surface of the planet cools by radiating heat.
- C) Denser inner rock types hold more heat than less dense crustal rocks.
- D) Rocks heat up when pressure increases.

Answer: <https://biology-forums.com/index.php?topic=418090>

Question 1527

The most likely form of erosion that causes cirques to form is

- A) meltwater action.
- B) plucking by ice.
- C) scouring by ice.
- D) abrasion.

Answer: <https://biology-forums.com/index.php?topic=417405>

Question 1528

True or False: Limestone, composed mainly of calcite, can form by both inorganic and biologic processes.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417443>

Question 1529

Which type of desert involves an air mass moving inward from the ocean?

- A) coastal desert
- B) rain-shadow desert
- C) subtropical desert
- D) polar desert

Answer: <https://biology-forums.com/index.php?topic=417869>

Question 1530

How is stream power calculated?

- A) divide shear stress by average flow velocity
- B) multiply shear stress and average flow velocity
- C) divide average flow velocity by volume of flow
- D) multiply average flow velocity and volume of flow

Answer: <https://biology-forums.com/index.php?topic=416850>

Question 1531

Which type of aquifer is most common in the United States?

- A) limestone
- B) sandstone
- C) sand and gravel
- D) igneous and metamorphic rock

Answer: <https://biology-forums.com/index.php?topic=417087>

Question 1532

What has caused changes to the water level in the High Plains aquifer?

- A) irrigation
- B) increasing urban demand
- C) erosion
- D) tectonic plate movement

Answer: <https://biology-forums.com/index.php?topic=417097>

Question 1533

Evidence that scientists would not utilize to study Earth's formation is

- A) data from other planets.
- B) Moon rocks.
- C) core samples.
- D) meteorite rocks.

Answer: <https://biology-forums.com/index.php?topic=418193>

Question 1534

A student commented, "A metamorphic rock must have a greater relative age than a sedimentary rock." Is the student using the term "relative age" here in the correct context, and why or why not?

- A) No. Relative age should state a specific number of years in which the event occurred.
- B) Yes, the term is used in the correct context, however knowing how long ago these types of rocks formed would be useful.
- C) Yes. The ages of the rocks are ordered in relation to each other.
- D) No. Relative age must compare the age of at least three things.

Answer: <https://biology-forums.com/index.php?topic=417740>

Question 1535

A blocky clastic sedimentary rock composed of silt would be called a(n)

- A) siltstone.
- B) arkose.
- C) mudstone.
- D) sandstone.

Answer: <https://biology-forums.com/index.php?topic=417410>

Question 1536

A(n) _____ forms where rocks both fold and tilt.

- A) anticline
- B) syncline
- C) plunging fold
- D) dip

Answer: <https://biology-forums.com/index.php?topic=417334>

Question 1537

We have gotten much better at predicting floods, due to the exercise in EM 16.2. Has this made for a decrease in the amount of damage done by flooding? Why or why not?

Answer: <https://biology-forums.com/index.php?topic=417051>

Question 1538

Arched folds where limbs dip toward the hinge line are called

- A) inclines.
- B) anticlines.
- C) reclines.
- D) synclines.

Answer: <https://biology-forums.com/index.php?topic=417463>

Question 1539

The property that describes how mineral surfaces reflect light is called

- A) color.
- B) luster.
- C) streak.
- D) hardness.

Answer: <https://biology-forums.com/index.php?topic=416942>

Question 1540

True or False: It is a temperature difference rather than a density contrast that causes convective motion.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417240>

Question 1541

The following statements relate to processes that occur because of plate subduction. Which of the following statements is not true?

- A) Mountains form further from a convergent boundary than from a divergent boundary.
- B) Earthquake foci are deeper further from a deep-sea trench.
- C) Deep-sea trenches mark the plate boundary.
- D) Volcanoes of this kind tend to have a single type of magma.

Answer: <https://biology-forums.com/index.php?topic=417606>

Question 1542

Which is not an effect resulting from dam construction on a river?

- A) erosion of the channel bed below the dam
- B) sediment deposition above the dam
- C) increased sediment build-up below the dam
- D) bank stabilization below the dam

Answer: <https://biology-forums.com/index.php?topic=416913>

Question 1543

The magnetic north pole migrates about

- A) 40 m per month.
- B) 40 km per year.
- C) 40 km per decade.
- D) 40 cm per day.

Answer: <https://biology-forums.com/index.php?topic=417172>

Question 1544

Igneous rocks formed below ground, compared to those formed above ground, are distinguished by

- A) chemical composition.
- B) mineral type.
- C) color.
- D) crystal size.

Answer: <https://biology-forums.com/index.php?topic=416951>

Question 1545

What does earthquake intensity measure?

- A) damage and secondary effects of the quake
- B) amplitude of seismic waves
- C) cost of reconstruction
- D) reach of the quake from the epicenter in km

Answer: <https://biology-forums.com/index.php?topic=417430>

Question 1546

The wobble in Earth's rotational axis undergoes a periodic variation every

- A) 12,000 years.
- B) 23,000 years.
- C) 41,000 years.

D) 100,000 years.

Answer: <https://biology-forums.com/index.php?topic=417486>

Question 1547

Which factor would not cause a variation in the amount of calcite added to soil in the region of a particular dust trap?

- A) parent rocks
- B) topography
- C) average wind velocity
- D) rainfall

Answer: <https://biology-forums.com/index.php?topic=418101>

Question 1548

A chemical or biogenic sedimentary rock consisting of gypsum is called

- A) rock salt.
- B) rock gypsum.
- C) dolostone.
- D) chert.

Answer: <https://biology-forums.com/index.php?topic=417464>

Question 1549

Which type of magma is not usually found at subduction zones?

- A) granitic
- B) dacitic
- C) andesitic
- D) basaltic

Answer: <https://biology-forums.com/index.php?topic=417276>

Question 1550

Which of the following is not a reason that grain size of sediment tends to decrease downstream?

- A) rounding
- B) decreasing shear force
- C) abrasion
- D) gravity

Answer: <https://biology-forums.com/index.php?topic=416871>

Question 1551

Sediment deposits that form when stream flow abruptly changes from a confined channel to being unconfined are called

- A) unconfined fans.
- B) alluvial fans.
- C) abrupt deposits.
- D) gravel deposits.

Answer: <https://biology-forums.com/index.php?topic=416970>

Question 1552

Which of the following statements is false?

- A) Pressure can move underground water horizontally.
- B) Pressure can move underground water in any direction.
- C) Pressure can move underground water up.
- D) Pressure can move underground water down.

Answer: <https://biology-forums.com/index.php?topic=417106>

Question 1553

Which of the following is not a problem associated with computer simulations in geology?

- A) computers may not have enough memory to account for all the necessary variables in the calculations
- B) assumptions and simplifications must be used
- C) mathematical formulas are an uncertain way to measure the real-world phenomena
- D) computers cannot calculate quickly enough to make up for the vast time span involved in geologic processes

Answer: <https://biology-forums.com/index.php?topic=418333>

Question 1554

Which area would be most likely to have a thick regolith with immature soil?

- A) the base of a steep, eroded slope
- B) a steep, eroded slope
- C) a high plateau
- D) a gently sloping plain

Answer: <https://biology-forums.com/index.php?topic=418083>

Question 1555

True or False: Conduction dominates everywhere within the lithosphere.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417248>

Question 1556

Which horizon will show the least degree of weathering?

- A) C horizon
- B) O horizon
- C) A horizon
- D) B horizon

Answer: <https://biology-forums.com/index.php?topic=418047>

Question 1557

What happens to the earth's climate when sea level is high? Why?

Answer: <https://biology-forums.com/index.php?topic=417573>

Question 1558

Identify the physical mineral property described.

"This property depends on the smoothness of the mineral surface at the atomic scale, or how mobile electrons are within the crystal."

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

Answer: <https://biology-forums.com/index.php?topic=416799>

Question 1559

A very steep pointy mountain peak sculpted between three or more cirques is called a(n)

- A) arete.
- B) horn.
- C) esker.
- D) roche moutonee.

Answer: <https://biology-forums.com/index.php?topic=417465>

Question 1560

The type of gravity-driven, downslope movement where the material rotates as it moves downslope in contact with a curved surface of rupture is called

- A) flow.
- B) creep.
- C) fall.
- D) slump.
- E) slide.

Answer: <https://biology-forums.com/index.php?topic=418256>

Question 1561

True or False: Neptunists and Vulcanists differed on their interpretation of how loose sand and gravel formed.

- A) True
- B) False

Answer: <https://biology-forums.com/index.php?topic=417029>

Question 1562

Why is the west coast of North America 500 km west of where it was about 540 million years ago?

- A) volcanic eruptions
- B) plate movement
- C) accretion of exotic terrains
- D) thrust and uplift of continental crust

Answer: <https://biology-forums.com/index.php?topic=417898>

Question 1563

What is the role of water in the asthenosphere?

- A) It composes part of many rock-forming minerals.
- B) It forms underground lakes and rivers.
- C) It induces the melting of rocks.
- D) It acts as a solvent to dissolve rocks.

Answer: <https://biology-forums.com/index.php?topic=418253>

Question 1564

Liquid metal at the base of the outer core moves upward due to _____ convection.

- A) brittle
- B) elastic
- C) chemical
- D) thermal

Answer: <https://biology-forums.com/index.php?topic=417251>

Question 1565

A student on a field trip in Yosemite National Park examines a piece of rock under a microscope and sees tiny crystals of olivine, pyroxene, and plagioclase feldspar. What type of rock is it?

- A) obsidian
- B) granite
- C) pumice
- D) basalt

Answer: <https://biology-forums.com/index.php?topic=417095>

Question 1566

Freely roaming electrons in a material tend to make it a conductor of electricity. What other property do freely roaming electrons have an affect upon?

- A) luster
- B) cleavage
- C) density
- D) color

Answer: <https://biology-forums.com/index.php?topic=416848>

Question 1567

Elongate sediment ridges that project from headlands in the direction of the longshore current are called

- A) spits.
- B) berms.
- C) groins.
- D) sea stacks.

Answer: <https://biology-forums.com/index.php?topic=417765>

Question 1568

The three layers of Earth are

- A) the lithosphere, the asthenosphere, and the atmosphere.
- B) the oceanic crust, the continental crust, and the upper mantle.

- C) the crust, the mantle, and the core.
D) the crust, the upper mantle, and the lower mantle.

Answer: <https://biology-forums.com/index.php?topic=418323>

Question 1569

In a syncline, the _____ rocks are exposed along the axis.

- A) youngest
B) densest
C) oldest
D) lightest

Answer: <https://biology-forums.com/index.php?topic=417466>

Question 1570

Metamorphic rock is formed by

- A) the breakdown of preexisting rocks.
B) the lithification of preexisting sediment.
C) changing the nature of minerals of preexisting rocks.
D) the crystallization of magmas that form from melting preexisting rocks.

Answer: <https://biology-forums.com/index.php?topic=416980>

Question 1571

True or False: It's wise to use the site of formation as the primary criterion for rock classification.

- A) True
B) False

Answer: <https://biology-forums.com/index.php?topic=416816>

Question 1572

Which of the following is least likely to be mapped with data about ancient igneous rocks?

- A) ancient divergent zones
B) ancient convergent zones
C) ancient hot spots
D) ancient mountain ranges

Answer: <https://biology-forums.com/index.php?topic=417670>

Question 1573

Judge the following sentences according to the criteria given below. On average, heat flow through oceanic crust is greater than heat flow through continental crust because mantle heat is transferred towards the surface by convection.

- A) The assertion and the reason are both correct, but the reason is invalid.
B) The assertion is incorrect but the reason is correct.
C) The assertion and the reason are both correct, and the reason is valid.
D) Both the assertion and the reason are incorrect.
E) The assertion is correct but the reason is incorrect.

Answer: <https://biology-forums.com/index.php?topic=417257>

Question 1574

Which is not an effect of metamorphic dehydration?

- A) The melting temperature of silicate minerals decreases.
B) Crystallization occurs more quickly.
C) Magma formation is enhanced.
D) Water vapor fills spaces between mineral grains.

Answer: <https://biology-forums.com/index.php?topic=417643>

Question 1575

According to the rock cycle, the process by which magma becomes igneous rocks is called

- A) metamorphism.
B) crystallization.
C) melting.

D) weathering/erosion.

Answer: <https://biology-forums.com/index.php?topic=417065>

Question 1576

Judge the following sentence according to the criteria given below Sediment loads are largest in areas of steep relief because river slopes are steeper and steep valley walls are more prone to mass movement.

- A) Both the assertion and the reason are incorrect.
- B) The assertion and the reason are both correct, but the reason is invalid.
- C) The assertion is correct but the reason is incorrect.
- D) The assertion and the reason are both correct, and the reason is valid.
- E) The assertion is incorrect but the reason is correct.

Answer: <https://biology-forums.com/index.php?topic=416955>

Question 1577

Choose the option that matches the pore particles with the cement it forms upon reaction with water.

- A) feldspar grains become hematite; iron-silicate grains form quartz
- B) feldspar grains become clay; iron-silicate grains form hematite
- C) pyroxene grains become clay; carbo-silicate grains form hematite
- D) silicate grains become clay; iron-oxide grains form hematite

Answer: <https://biology-forums.com/index.php?topic=417374>

Question 1578

If a rock containing kyanite and andalusite were to undergo a decrease in pressure what must happen to temperature in order for that rock to continue to have stable kyanite and andalusite?

- A) temperature must decrease
- B) it is impossible for it to continue to have stable kyanite and andalusite
- C) temperature must stay the same
- D) temperature must increase

Answer: <https://biology-forums.com/index.php?topic=417714>