

Unit 2 – Plate Tectonics Twitter Review Questions

U2Q-1: Alfred Wegener's _____ hypothesis stated that all of Earth's landmasses were once joined together as Pangaea.

- Answer: Continental Drift

U2Q-2: Paleomagnetism describes the age of ocean floor during an oceanic-oceanic divergent event. Where is ocean floor the oldest?

- Answer: Away from mid-ocean ridges

U2Q-3: Crust is _____ (destroyed/formed) along a convergent boundary.

- Answer: Destroyed

U2Q-4: Crust is _____ (destroyed/formed) along a divergent boundary.

- Answer: Formed

U2Q-5: Crust is neither destroyed nor formed along a _____ boundary.

- Answer: Transform

U2Q-6: What is the most visible evidence that early mapmakers used to explain that Earth's continents had moved?

- Answer: Matching Coastlines

U2Q-7: What is true about the pattern of ocean-floor rocks on either side of a mid-ocean ridge?

- Answer: Same ocean-floor pattern on both sides of mid-ocean ridge

U2Q-8: Compare the thickness of both the oceanic and continental crust.

- Answer: Oceanic crust is much THINNER than continental crust.

U2Q-9: Compare the density of both the oceanic and continental crust.

- Answer: Oceanic crust is DENSER than continental crust

U2Q-10: What type of bedrock is most common with oceanic crust?

- Answer: Basalt

U2Q-11: What type of bedrock is most common with continental crust?

- Answer: Granite

U2Q-12: Ridge push is to ____ (convergent/divergent) boundary as slab pull is to (convergent/divergent) boundary.

- Answer: Divergent ; Convergent

U2Q-13: What is the name of the region given to the process in which one plate is pulled underneath the other.

- Answer: Subduction

U2Q-14: Compared to the age of ocean crust near deep-sea trenches, the age of ocean crust near ocean ridges is ____.

- Answer: Younger

U2Q-15: This layer of Earth is composed of solid nickel and iron.

- Answer: Inner Core

U2Q-16: This layer of Earth is responsible for the movement of lithospheric plates due to mantle convection.

- Answer: Asthenosphere

U2Q-17: This layer of Earth is composed of liquid iron and is responsible for the generation of Earth's magnetic field.

- Answer: Outer Core

U2Q-18: This layer of Earth contains the fluid-like asthenosphere that permits plate movement.

- Answer: Mantle

U2Q-19: When a reverse fault occurs, the footwall will move ____ and the hanging wall will move ____.

- Answer: Down ; Up

U2Q-20: A tectonic plate is a piece of the ____ that consists of the crust and uppermost mantle.

- Answer: Lithosphere

U2Q-21: What is the primary source of energy that allows the movement of lithospheric plates? (Be specific)

- Answer: Mantle Convection driven by Earth's internal heat

U2Q-22: What features are produced/formed when two oceanic plates converge? (3 features)

- Answer: Subduction Zone; Trench; Volcanic Island Arc

U2Q-23: What feature is produced/formed when two continental plates converge? (1 feature)

- Answer: Folded Mountains

U2Q-24: What features are produced/formed when during an oceanic-continental convergence? (3 features)

- Answer: Subduction Zone; Trench; Continental Volcano

U2Q-25: What features are produced/formed when two oceanic plates diverge? (2 features)

- Answer: Mid-Ocean Ridge; New Ocean crust

U2Q-26: What feature is produced/formed when two continental plates diverge? (1 feature)

- Answer: Rift Valley

U2Q-27: What occurs along a transform boundary?

- Answer: Tectonic plates move horizontally past each other

U2Q-28: Identify one very important fault line along the west coast of the United States where a transform boundary is present.

- Answer: San Andreas Fault

U2Q-29: What type of plate boundary is exemplified if two adjacent convection currents were to move in opposite directions?

- Answer: Divergent Boundary

U2Q-30: Identify one very unique characteristic of the asthenosphere.

- Answer: Permits plate motion

U2Q-31: Compressional stress causes which type of fault to occur?

- Answer: Reverse Fault

U2Q-32: Tensional stress causes which type of fault to occur?

- Answer: Normal Fault

U2Q-33: Shearing stress causes which type of fault to occur?

- Answer: Strike-Slip Fault

U2Q-34: Physical size of Earth does not get bigger because of conv & div boundaries. Old crust is recycled by ____ at oceanic-oceanic conv.

- Answer: Subduction

U2Q-35: The arrows in mantle and oceanic crust indicate the direction of flow of ____.

- Answer: Convection Currents

U2Q-36: In a reverse fault, the footwall moves ____ and the hanging wall moves ____.

- Answer: Down ; Up

U2Q-37: Which mountain range system was formed as a result of a collision between the African and North American plates?

- Answer: Appalachian Mountains

U2Q-38: Why was Alfred Wegener's continental drift hypothesis not widely accepted?

- Answer: Could not explain how or why continents moved without fracturing

U2Q-39: The theory of ____ states that Earth's crust and rigid upper mantle are broken into enormous slabs.

- Answer: Plate Tectonics

U2Q-40: Not an actual question, but KNOW the correct order of series of events that formed the Appalachian Mountains.

- Answer: Crust formed → supercontinent broke apart → continental drift → continental collision → continental divergence into present day positions

U2Q-41: The weight of a subducting plate helps pull the lithosphere into a subduction zone during the process of ____.

- Answer: Slab Pull

U2Q-42: What is the name of the theory/mechanism proposed by Harry Hess that explained the movement of tectonic plates.

- Answer: Seafloor Spreading

U2Q-43: What is the name of the supercontinent that later formed Earth's present day landmasses?

- Answer: Pangaea

U2Q-44: Identify Alfred Wegener's four (4) evidences for continental drift.

- Answer: Apparent fit ; similar rocks on different continents ; similar fossils on different continents ; Glacial deposit on equatorial landmasses

U2Q-45: The origin of an earthquake deep within the Earth is called the _____.

- Answer: Focus

U2Q-46: What is the estimated age of the Appalachian Mountains?

- Answer: 480 Million Years