

Name: _____

KEY

Block: _____

Review for 4.1 Quiz

Provide a definition or explain the significance of the individual or term

Fixism: _____

Assumes that the continents have been in the same locations since Earth first formed.

Continental Drift Hypothesis:

Wegener suggested that all the continents use to fit together into a single supercontinent

Mid-Ocean Ridges:

A mountain ridge along the ocean floor.

Trenches:

A deep valley in the ocean floor.

Sea floor spreading:

Sea floor spreading occurs as magma rise the the surface at mid-ocean ridges putting pressure on the plates and in the process forms new crust.

Please fill in the blank of the following questions

1. As you move away from mid-ocean ridges, the age of rocks gets older
2. Earth's deepest solid layer is inner core
3. Earth's only liquid layer is outer core
4. Earth's diameter is 12 700 km
5. Earth's radius is 6 350 km
6. Mid-ocean ridges cover 60 000 km of the ocean floor
7. The upper mantle is broken into two pieces, the lithosphere and asthenosphere
8. In 1962, Harry Hess discovered sea floor spreading.
9. Our scientific understanding of Earth's layers below the crust is based on indirect observation.
10. The valley at the center of the mid-ocean ridge is called the rift. This is a crack in the crust.
11. Molten rock from inside the Earth magma
12. The Mariana Trench is more than 11 km deep.
13. Alfred Wegner provided which four reasons to support his Continental Drift Hypothesis
 - a. puzzle pieces
 - b. climate
 - c. fossils
 - d. rock

KEY

Name: _____

Block: _____

Review for 4.2 Quiz

Provide a definition or explain the significance of the individual or term

Tectonic Plates: _____

Parts of the crust & upper most mantle that move over the Earth's surface.

Convergent plate boundary: _____

Two plates collide, denser crust goes below less dense crust

Mantle convection: _____

Current where cooler/denser material sinks & warmer/less dense material rises

Slab pull: _____

Pulling of a plate due to gravity & subduction

Divergent plate boundary: _____

Two plates separate, creating new crust on the ocean floor or on land.

Transform plate boundary: _____

Two plates slide horizontally past each other. Earthquakes are common.

Ridge push: _____

New material pushes older material aside, causing plates to move apart

Fill in the blank of the following questions

1. The lithosphere is composed of crust and part of the upper mantle.
2. The North American plate is made up of both oceanic and continental crust.
3. Tectonic plates move slowly and float on the asthenosphere, which flows like toothpaste and tar.
4. The interactions between lithosphere and asthenosphere help to explain plate tectonics.
5. Mid-ocean ridges are found at divergent plate boundaries.
6. Trenches form at convergent plate boundaries.
7. Volcanoes form at convergent plate boundaries.
8. Earthquakes occur at transform plate boundaries.
9. Subduction occurs at convergent plate boundaries.
10. Sea floor spreading occurs at divergent plate boundaries.
11. Continental rifting occurs at divergent plate boundaries.
12. Plates move at a rate of 1 cm to 15 cm per year.

Name: _____

Block: _____

13. The movement of tectonic plates is measured using satellites lasers and other tech. One specific example is the GPS, which uses signals from several satellites that orbit Earth.
14. Convection currents are thought to drive tectonic plate motion.
15. Mantle Convection occurs in the mantle where cooler, denser material sinks and warmer, less dense material rises.
16. ridge push occurs at divergent plate boundaries, while slab pull occurs at convergent plate boundaries.

Name: _____

KEY

Block _____

Review for 4.3

Earthquake:

The ground-shaking release of energy when a break occurs in the crust

Fault:

A large break in rock

Reverse Fault:

When pressured rock releases the pressure by 1 rock rides to overlap the other.

Normal Fault:

When rock gets pulled apart and one slips downwards

Strike-slip fault:

When 2 rocks slip horizontally against each other

Focus:

The location where the earthquakes start

Seismic Waves:

Vibrations caused by the release of energy

Epicentre:

point of Earth's surface where earthquake starts.

Seismograph:

Instruments that measure and records ground vibrations

Magnitude:

represents the strenght of an earthquake

Volcano:

opening in Earth's surface where magma is released

Fill in the blank of the following questions

1. When pressure is applied too quickly or is larger than the strength of the rock, the rock breaks and the stored energy in the rocks is released in the form of an earthquake.
2. Almost 80% of all major earthakes occur in the Circum-Pacific seismic belt.

Name: _____

Block: _____

3. Earthquakes usually occur when rocks suddenly shift along a break in the rock, releasing built-up pressure. The break where the movement happens is called a fault. There are three types: Normal fault, reverse fault, and strike-slip.
4. Earthquakes start at a location called the focus, which is the point where the breakage of rock first happens.
5. As an earthquake occurs, rocks along a fault move into a new position and the ground feels like it is vibrating. These vibrations are called seismic waves.
6. The three types of waves are primary waves, secondary waves, and surface waves.
7. secondary waves can only move through solids
8. Surface waves travel along the surface of Earth and not through the interior.
9. primary waves can travel through both solids and liquids
10. surface waves are the slowest waves
11. Seismic waves are detected and recorded by a scientific instrument called seismograph.
12. The magnitude of an earthquake refers to how strong the earthquake is.
13. Each number on the scale represents a 10 fold difference. For example, a 8.0 magnitude earth quake is 1000 times greater than a 5.0 magnitude.
14. Anywhere that magma from the mantle reaches Earth's surface can be called a volcano.
15. Once magma reaches the surface, it is then called lava.
16. Volcanic eruptions can produce hot gases, volcanic ash, and cause dangerous landslides.
17. Volcanoes occur along oceanic - oceanic plate boundaries and continental - oceanic plate boundaries.
18. Volcanoes occur as a result of subduction, where the more dense plate goes below the less dense plate.
19. At oceanic-oceanic plate boundaries, volcanic island arcs will be produced. The Alaskan Islands of Alaska are a good example.
20. At oceanic-continental convergent plate boundaries form large continental volcanoes. The Coast mountain Range includes a series of dormant volcanoes.
21. Hot spots are defined as unusually hot regions of Earth's mantle where magma rises to the surface by breaking through weak parts of the lithosphere.
22. The Hawaiian Island are thought to have formed from a hot spot under the ocean.
23. When two continental plate collide, massive mountain ranges are formed. An example would be the Himalayan Mountains Range. This mountain range was created when the Eurasia plate and Indian plate collided.