

Section: Causes of Volcanic Eruptions

1. To help predict eruptions, scientists study _____ coming from active volcanoes and look for changes in the volcano's _____.

THE FORMATION OF MAGMA

2. The rock of the Earth's mantle
 - a. flows very quickly.
 - b. has a puttylike consistency.
 - c. is cooler than the Earth's crust.
 - d. is solid and rock-hard.
3. Rock usually melts to form magma
 - a. when there is an increase in pressure.
 - b. when there is a decrease in pressure.
 - c. when there is a decrease in temperature.
 - d. when it is in a volcano.

4. Magma forms in the deeper regions of the Earth's _____ and the uppermost layers of the _____.

5. Changes in _____ and _____ cause magma to form.

6. How does magma behave like air bubbles in a jar of honey?

WHERE VOLCANOES FORM

7. About 80% of active volcanoes on land form where plates
 - a. join.
 - b. separate.
 - c. collide.
 - d. slide past each other.
8. Tectonic plate boundaries are areas where tectonic plates _____, _____, or _____.

WHEN TECTONIC PLATES SEPARATE

10. A set of rifts between separating plates is called a(n)
 - a. divergent boundary.
 - b. mantle rock.
 - c. crater column.
 - d. rift zone.
11. Tectonic plates separate at a(n) _____ boundary.

Place the following steps of mid-ocean ridge formation in the correct order. Write the appropriate number in each space provided.

12. Magma rises to the surface of the surrounding rock.
13. Mantle material rises to fill the spaces between plates.
14. The magma forms a new crust on the ocean floor.
15. A rift forms as tectonic plates move apart.
16. The mantle rock melts because of the decrease in pressure.

WHEN TECTONIC PLATES COLLIDE

17. Subduction is
 - a. the movement of one tectonic plate against another.
 - b. the movement of one tectonic plate over another.
 - c. the movement of one tectonic plate under another.
 - d. the movement of one tectonic plate away from another.
18. Convergent boundaries commonly exist where
 - a. tectonic plates move side by side.
 - b. oceanic crust moves away from continental crust.
 - c. continental crust is subducted under oceanic crust.
 - d. tectonic plates collide with each other.
19. As the ocean crust sinks deeper into the mantle,
 - a. it increases in temperature.
 - b. it forms a lava fountain.
 - c. it forms a volcano.
 - d. its pressure decreases.