

M O D E R N E A R T H S C I E N C E

Chapter 7

Volcanoes

Read each statement below. If the statement is true, write *T* in the space provided. If the statement is false, write *F* in the space provided.

- _____ 1. Knowledge of previous eruptions of a particular volcano is generally helpful in predicting its future eruptions.
- _____ 2. Fissures are commonly found at the top of shield volcanoes.
- _____ 3. Magma is able to rise upward through the earth's crust because it is less dense than the surrounding rocks.
- _____ 4. Pyroclastic material is usually ejected from volcanoes that erupt felsic lava.
- _____ 5. The Hawaiian Islands are examples of cinder cones.
- _____ 6. The temperature and pressure in the asthenosphere generally keep the rocks there below the melting point.
- _____ 7. Volcanic activity is frequent in island arcs.
- _____ 8. The material that erupts from volcanoes on Io is felsic.
- _____ 9. The heat produced by intense meteoroid bombardment may be responsible for much of the moon's ancient volcanism.
- _____ 10. Cinder cones are generally much steeper than shield volcanoes.

Choose the one best response. Write the letter of that choice in the space provided.

- _____ 11. The easiest way to distinguish between volcanic ash and volcanic dust particles is to compare their:
a. color. b. weight. c. diameter. d. density.
- _____ 12. Magma that erupts under water often forms rounded formations called:
a. aa lava. b. pillow lava.
c. volcanic bombs. d. pahoehoe lava.
- _____ 13. The broad volcanic feature formed by quiet eruptions of thin lava flows is called a:
a. shield volcano. b. cinder cone.
c. rift. d. stratovolcano.
- _____ 14. The catastrophic volcanic eruption that caused a series of tsunamis and a drop in global temperatures happened in:
a. Japan. b. Hawaii. c. Krakatau. d. Iceland.

MODERN EARTH SCIENCE

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Choose the one best response. Write the letter of that choice in the space provided.

_____ 15. One of the features supporting the theory of volcanism on the moon is the presence of:

- a. smooth crater interiors.
- b. continued eruption today.
- c. volcanic cones.
- d. abundant pyroclastic material.

_____ 16. Seismographs can be useful in predicting volcanic eruptions because they measure:

- a. changes in surface bulging.
- b. changes in gas composition.
- c. temperature increases.
- d. earthquake activity.

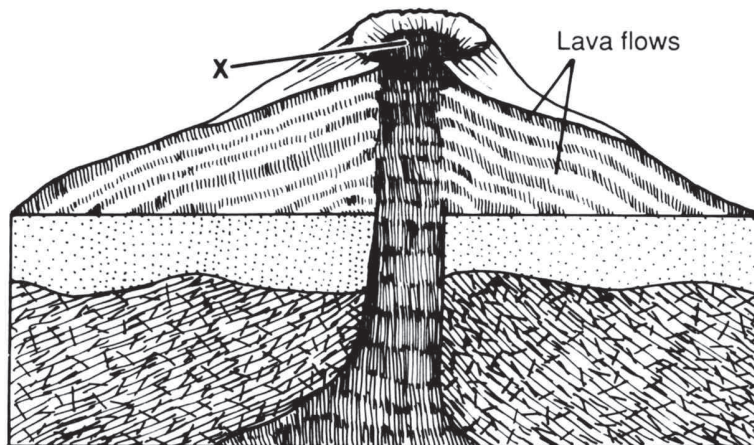
_____ 17. Which of the following is most likely to occur in an area of the asthenosphere where surrounding rock exerts less-than-normal pressure?

- a. violent volcanic eruptions
- b. magma formation
- c. plate subduction
- d. caldera formation

_____ 18. As a result of the subduction of oceanic crust under a continent, magma is most likely to erupt from:

- a. an oceanic ridge.
- b. an oceanic trench.
- c. an island arc.
- d. a volcanic cone.

Use the diagram below to answer questions 19 and 20.



_____ 19. What type of volcanic formation is represented by this diagram?

- a. stratovolcano
- b. shield volcano
- c. caldera
- d. cinder cone

_____ 20. The feature labeled X is a:

- a. volcanic bomb.
- b. hot spot.
- c. volcanic bulge.
- d. crater.

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Complete each statement by writing the correct term or phrase in the space provided.

21. The largest tephra, formed from solid rock, is known as _____ .
22. Areas of volcanism within lithospheric plates are known as _____ .
23. The composition of felsic lava differs from that of mafic lava because felsic lava contains more _____ .
24. The volcano Olympus Mons is an unusual example of the _____ type called a _____ .
25. Lava with a wrinkled surface that forms when mafic lava hardens is known as _____ .
26. The thin lava that generally erupts from oceanic volcanoes is called _____ .
27. A stratovolcano is also called a _____ .
28. The funnel-shaped pit at the top of a volcanic cone that is formed by the explosion of _____ material is called a _____ .
29. Volcanic explosions that destroy the upper part of the cone often leave a depression called a _____ .
30. When solid rock in the earth's mantle melts, it forms a liquid rock known as _____ .

Read each question or statement and answer it in the space provided.

31. How are mountains formed when a plate with an oceanic crust meets one with a continental crust?
