

Directed Reading A

Section: Volcanic Eruptions

1. Volcanic eruptions can be _____ times stronger than the explosion produced by the first atomic bomb.
2. What is *magma*?

3. Magma that flows onto the Earth's surface is called _____.
4. A vent or fissure in the Earth's surface through which magma and gases are expelled is a _____.

NONEXPLOSIVE ERUPTIONS

- _____ 5. Which of the following can happen during nonexplosive eruptions?
 - a. Violent explosions can occur.
 - b. Tons of rock can be blasted into the air.
 - c. Huge amounts of lava can be released.
 - d. Fire can shoot into the air.
6. The most common type of volcanic eruption is _____.
7. Much of the sea floor is covered with _____ from nonexplosive eruptions.

EXPLOSIVE ERUPTIONS

- _____ 8. Which of the following would you expect to see during an explosive volcanic eruption?
 - a. calm lava flows
 - b. hot debris, ash, and gas shooting into the air
 - c. a rainbow
 - d. lava fountains
9. In a volcanic eruption, molten rock is blown into dust-sized particles called _____.
10. During an explosive eruption, where do larger pieces of debris fall?

11. How quickly can an explosive eruption demolish a mountainside?

Directed Reading A *continued*

21. What type of material is produced by nonexplosive eruptions?

22. What type of material is produced by explosive eruptions?

23. What is the difference between the flow of lava with high viscosity and the flow of lava with low viscosity?

Match the correct description with the correct term. Write the letter in the space provided.

____ **24.** pours out quickly and forms a brittle, jagged crust

a. pahoehoe lava

b. aa lava

____ **25.** flows slowly, has a glassy surface and rounded wrinkles

c. pillow lava

d. blocky lava

____ **26.** forms underwater in rounded lumps

____ **27.** cool, stiff lava that forms jumbled heaps close to the erupting vents

Match the correct description with the correct term. Write the letter in the space provided.

____ **28.** large blobs of magma that harden in the air

a. volcanic blocks

____ **29.** solid rock erupted from a volcano

b. volcanic bombs

____ **30.** pebblelike bits of magma that harden before they hit the ground

c. lapilli

d. volcanic ash

____ **31.** gases in stiff magma expand rapidly, forming glasslike slivers

32. When large amounts of hot ash, dust and gases are ejected from a volcano, the result is a dangerous type of volcanic flow called a(n)

_____.

33. Pyroclastic materials can race downhill at speeds of more than

_____.

34. The temperature at the center of a pyroclastic flow can exceed

_____.