

**Volcanoes** ▪ *Guided Reading and Study*

# Volcanoes and Plate Tectonics

*This section explains what volcanoes are and identifies where most volcanoes occur.*

## Use Target Reading Skills

As you preview the headings in this section, complete the graphic organizer with questions in the left column. Then as you read, fill in the answers in the second column.

Volcanoes and Plate Tectonics	
Question	Answer
Where are volcanoes found?	Most volcanoes are found along plate boundaries.

## Introduction

1. What is a volcano? \_\_\_\_\_  
 \_\_\_\_\_  
 \_\_\_\_\_
2. A molten mixture of rock-forming substances, gases, and water from the mantle is referred to as \_\_\_\_\_.
3. When magma reaches the surface, it is called \_\_\_\_\_.

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**Volcanoes and Plate Tectonics** *(continued)*

**Volcanoes and Plate Boundaries**

4. What is the Ring of Fire? \_\_\_\_\_

\_\_\_\_\_

5. Where do most volcanoes form? \_\_\_\_\_

\_\_\_\_\_

6. Describe how volcanoes form along the mid-ocean ridges. \_\_\_\_\_

\_\_\_\_\_

7. Is the following sentence true or false? Volcanoes can form along diverging plate boundaries on land. \_\_\_\_\_

8. Is the following sentence true or false? Many volcanoes form near converging plate boundaries where oceanic crust returns to the mantle.

\_\_\_\_\_

9. How does subduction at converging plate boundaries lead to the formation of volcanoes? \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

10. Volcanoes at boundaries where two oceanic plates collide create a string of islands called a(n) \_\_\_\_\_.

11. What are three major island arcs? \_\_\_\_\_

\_\_\_\_\_

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12. Circle the letter of the types of plates that collided to form the Andes Mountains on the west coast of South America.
- a. two oceanic plates
  - b. a continental plate and an oceanic plate
  - c. a continental plate and an island plate
  - d. two continental plates

**Hot Spot Volcanoes**

13. What is a hot spot? \_\_\_\_\_  
\_\_\_\_\_  
\_\_\_\_\_
14. How did the Hawaiian Islands form? \_\_\_\_\_  
\_\_\_\_\_
15. Is the following sentence true or false? Hot spots form only under oceanic crust. \_\_\_\_\_  
\_\_\_\_\_