

Name _____ Date _____ Class _____

Volcanoes ▪ *Guided Reading and Study*

Volcanoes and Plate Tectonics

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

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 _____.

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? _____

Name _____ Date _____ Class _____

Volcanoes ▪ *Guided Reading and Study*

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. _____

Volcanoes

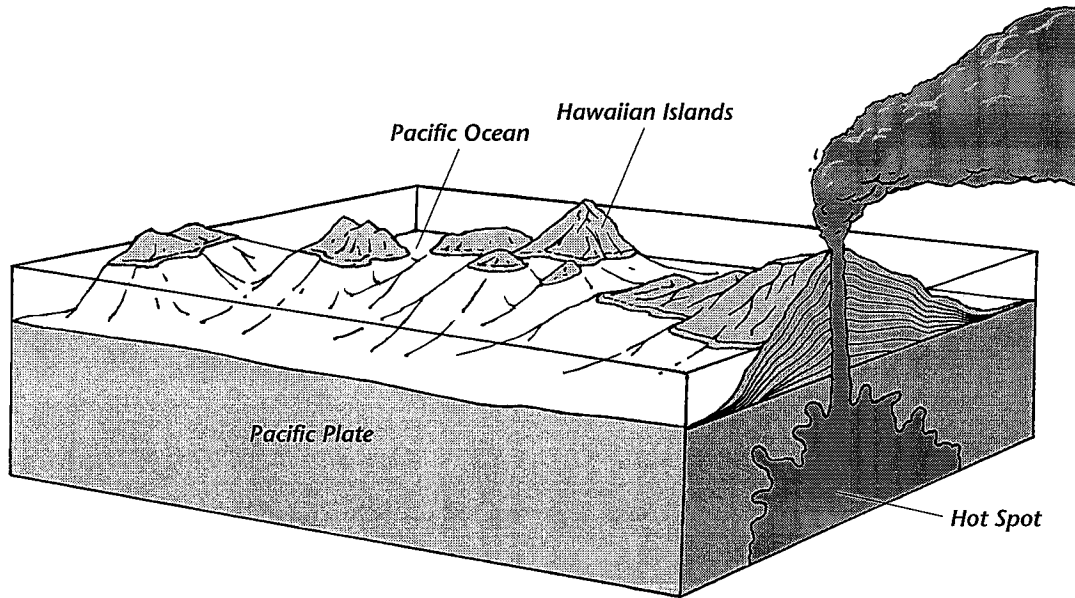
Volcanoes ▪ *Review and Reinforce*

Volcanoes and Plate Tectonics

Understanding Main Ideas

Answer the following questions on a separate sheet of paper.

1. How do volcanoes change Earth's surface?
2. Why do so many of Earth's volcanoes occur along plate boundaries?



3. Explain how the hot spot shown in the diagram above created the Hawaiian Islands. Draw an arrow on the diagram to help explain the process.

Building Vocabulary

Answer the following questions on a separate sheet of paper.

4. What is the difference between magma and lava?
5. Define each of these terms in your own words.
 - a. volcano
 - b. Ring of Fire
 - c. island arc

Volcanoes and Plates

Active Volcanoes

Volcano	Location	Volcano	Location
Arenal	Costa Rica	Mount Rainier	Washington, USA
El Chichón	Mexico	Oi Doiyo Lengai	Congo
El Misti	Peru	Pinatubo	Philippines
Erta Alè	Ethiopia	Rabaul	Papua New Guinea
Falcon	Tonga Islands	Ruapehu	New Zealand
Hekla	Iceland	Tambora	Indonesia
Katmai	Alaska, USA	Unzen	Japan
Mauna Loa	Hawaii, USA	Villarrica	Chile

Find each location listed above on a world map. Compare the location with the map of Earth's plates in your textbook. Then answer the following questions in the spaces provided.

1. Which volcanoes are located along converging plate boundaries?

2. Which volcanoes are located along diverging plate boundaries?

3. Which volcanoes are located at hot spots?

4. Which volcano is in the middle of a continent?
