

Chapter 3 Rocks

## Section 3.2 Igneous Rocks

*This section discusses the characteristics of igneous rocks.*

### Reading Strategy

**Outlining** Complete the outline as you read. Include points about how each of these rocks form, some of the characteristics of each rock type, and some examples of each. For more information on this Reading Strategy, see the **Reading and Study Skills** in the **Skills and Reference Handbook** at the end of your textbook.

<p>I. Igneous Rocks</p> <p style="margin-left: 20px;">A. Intrusive Rocks</p> <p style="margin-left: 40px;">1. _____ _____</p> <p style="margin-left: 40px;">2. _____ _____</p> <p style="margin-left: 20px;">B. Extrusive Rocks</p> <p style="margin-left: 40px;">1. _____ _____</p> <p style="margin-left: 40px;">2. _____ _____</p>
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### Formation of Igneous Rocks

*Match each description to its term.*

	Description	Term
_____	1. the meaning of the Latin word <i>ignis</i>	a. magma
_____	2. rocks that form when magma hardens beneath Earth's surface	b. granite
_____	3. rocks that form when lava hardens	c. intrusive igneous
_____	4. melted material beneath Earth's surface	d. lava
_____	5. melted material at Earth's surface	e. rhyolite
_____	6. an intrusive igneous rock that forms when magma cools slowly beneath Earth's surface	f. fire
_____	7. an extrusive igneous rock that forms when lava cools quickly at Earth's surface	g. extrusive igneous

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8. Complete the table below.

Compare and Contrast Igneous Rocks		
	Granite	Rhyolite
Compare		
Contrast		

**Classification of Igneous Rocks**

9. Two characteristics used to classify igneous rocks are \_\_\_\_\_ and \_\_\_\_\_.
10. Is the following sentence true or false? Igneous rocks that are composed primarily of quartz and feldspar have a granitic composition. \_\_\_\_\_
11. Rocks that contain dark silicate minerals and plagioclase feldspar have a(n) \_\_\_\_\_.
12. Circle the letters of the minerals that are found in andesitic rocks.
  - a. amphibole
  - b. pyroxene
  - c. biotite
  - d. plagioclase feldspar
13. Peridotite is composed almost entirely of dark silicate minerals. Its chemical composition is referred to as \_\_\_\_\_.
14. Is the following sentence true or false? Much of the upper mantle is thought to be made of granite. \_\_\_\_\_
15. Circle the statements that are true about the texture of igneous rocks.
  - a. Slow cooling results in rocks with small, interconnected mineral grains.
  - b. Rapid cooling of magma or lava results in rocks with small, interconnected mineral grains.
  - c. A glassy texture is the result of lava that has cooled very slowly.
  - d. An even rate of cooling results in rocks with very different-sized minerals.