Name _____ Class _____ Date _____

Section 10.2 Intrusive Igneous Activity

This section explains how to classify intrusive igneous features and describes where magma comes from.

Reading Strategy

Comparing and Contrasting After you read, compare the types of plutons by completing the table. 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.

Types of Plutons	Description
Sill	a.
Laccolith	b.
Dike	c.
Batholith	d.

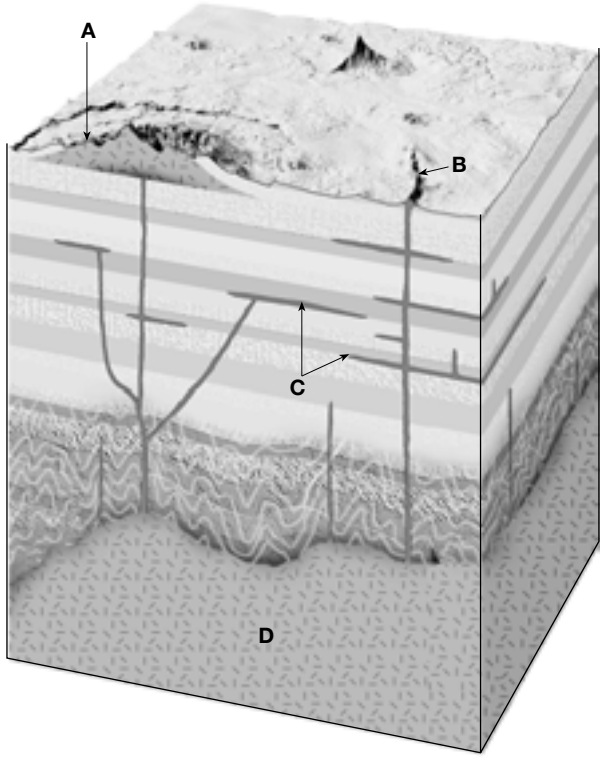
Plutons

1. Select the appropriate letter in the diagram that identifies each of the following igneous intrusive features.

_____ sill
_____ batholith
_____ laccolith
_____ dike

2. Is the following sentence true or false? Plutons can be studied on Earth's surface as they form.

_____



3. What three characteristics are used to classify intrusive igneous bodies? _____

_____

Match each way plutons formed with the pluton type.

	How Formed	Pluton
_____	**4.** when magma from a large magma chamber invades fractures in the surrounding rocks	a. sill
_____	**5.** when a large intrusive igneous body of greater than 100 km^2 accumulates and becomes exposed	b. laccolith
_____	**6.** when magma is injected between sedimentary layers close to Earth's surface and collects as a lens-shaped mass	c. batholith
_____	**7.** when magma is injected along sedimentary bedding surfaces close to Earth's surface	d. dike

Origin of Magma

8. Is the following sentence true or false? Magma forms when solid rock in the crust and upper mantle partially melts.

_____

9. Circle the letter of one way magma is generated.

a. The confining pressure of rocks is increased.

b. The water content of rocks is reduced.

c. The temperature of rocks is lowered below their melting points.

d. The temperature of rocks is raised above their melting points.

10. The rate at which temperature changes with depth below Earth's surface is called the _____.

11. How is decompression melting of rocks triggered? _____

_____

_____

_____

12. _____ rock buried at depth has a much lower melting temperature than does _____ rock of the same composition and under the same pressure.