

Directed Reading A

Section: Sedimentary Rock

1. Over time, grains of sand may be compacted and cemented together to form a rock called _____.

ORIGINS OF SEDIMENTARY ROCK

2. When sediment is deposited in layers and compacted, _____ is formed.
3. Dissolved minerals separate from water and become a natural _____ that binds the sedimentary rock together.
4. Sedimentary rocks form at or near the Earth's _____.
5. The most noticeable feature of sedimentary rock is often its layers, or _____.

COMPOSITION OF SEDIMENTARY ROCK

6. Rock or mineral fragments are called _____.
7. Sedimentary rock that forms when rock or mineral fragments are cemented together is called _____ sedimentary rock.
8. Clastic sedimentary rocks can have coarse-, medium-, or fine-grained _____.
9. Sedimentary rock that forms when minerals crystallize out of solution, such as sea water, to become rock is called _____ sedimentary rock.
10. Sedimentary rock that forms from the remains, or fossils, of plants and animals is called _____ sedimentary rock.
11. Some limestone is made of the skeletons of tiny organisms called _____ that live in the ocean in huge colonies called _____.
12. Limestone made from the calcium carbonate from skeletons and shells of sea creatures is called _____ limestone.

Directed Reading A *continued*

- 13.** An organic sedimentary rock that forms from the action of heat and pressure on plant material over millions of years is called _____.

SEDIMENTARY ROCK STRUCTURES

- _____ **14.** What is the process in which sedimentary rocks are arranged in layers?
- a.** mud cracking
 - b.** weathering
 - c.** stratification
 - d.** erosion
- _____ **15.** What are the markings on sedimentary rocks that record the wave motion of wind or water called?
- a.** ripple marks
 - b.** stratification
 - c.** fossiliferous limestone
 - d.** mud cracks
- _____ **16.** What do we call the structures that form when fine-grained sediments at the bottom of a shallow body of water are exposed to the air and dry out?
- a.** ripple marks
 - b.** fossiliferous limestone
 - c.** coal
 - d.** mud cracks

Section Review

Sedimentary Rock

USING KEY TERMS

1. In your own words, write a definition for each of the following terms: *strata* and *stratification*.

UNDERSTANDING KEY IDEAS

- _____ 2. Which of the following is an organic sedimentary rock?
- a. chemical limestone
 - b. shale
 - c. fossiliferous limestone
 - d. conglomerate

3. Explain the process by which clastic sedimentary rock forms.

4. Describe the three main categories of sedimentary rock.

Section Review *continued*

MATH SKILLS

5. A layer of a sedimentary rock is 2 m thick. How many years did it take for this layer to form if an average of 4 mm of sediment accumulated per year? Show your work below.

CRITICAL THINKING

6. **Identifying Relationships** Rocks are classified based on texture and composition. Which of these two properties would be more important for classifying clastic sedimentary rock?

7. **Analyzing Processes** Why do you think raindrop impressions are more likely to be preserved in fine-grained sedimentary rock rather than coarse-grained sedimentary rock?
