Sedimentary Rocks

Textbook pages 120-132

1. Put the following terms in order to show the correct sequence of processes that form a sedimentary rock. (Compaction, Erosion, Cementation, Deposition)

2. Classify each of the following sedimentary rocks by writing Clastic, Crystalline, or Bioclastic.
   a. Sandstone _____________________________
   b. Coal _____________________________
   c. Breccia _____________________________
   d. Rock Salt _____________________________
   e. Shale _____________________________
   f. Conglomerate _____________________________
   g. Limestone _____________________________
      (made from shells)
   h. Limestone _____________________________
      (made from dissolved calcite)

Vocabulary Match-Up

1. erosion _____________________________
2. clastic rock _____________________________
3. sediment _____________________________
4. cementation _____________________________
5. organic rock _____________________________
6. compaction _____________________________
7. chemical rock _____________________________
8. deposition _____________________________

a. small, solid pieces of material from rocks or living things
b. the process that presses sediments together
c. sedimentary rock that forms from remains of plants and animals
d. the process in which water and wind loosen and carry away rock fragments
e. the processes in which dissolved minerals crystallize and glue sediments together
f. sedimentary rock that forms when rock fragments are squeezed together
g. the process by which sediment settles out of wind or water
h. sedimentary rock that forms when minerals dissolve in a solution crystallize
Sedimentary Rocks Scavenger Hunt

Use the Earth Science Reference Tables to answer the following questions.

1. What are the two categories sedimentary rocks are grouped into?

2. Which rock is clastic and has angular fragments?

3. Which rock is bioclastic and composed of carbon?

4. What is the composition of siltstone?

5. Which rock is composed of Dolomite?

6. What is the grain size of sandstone?

7. Which rocks have a grain size of 0.2cm or less?

8. Which rock is made from plant remains?

9. What is the composition and grain size of Rock Gypsum?

10. What is the grain size of limestone?
1. Which sedimentary rock would be composed of particles ranging in size from 0.0004 centimeter to 0.006 centimeter?
   (1) conglomerate (3) siltstone
   (2) dolostone (4) shale

2. Which property best describes a rock which has formed from sediments?
   (1) crystalline structure
   (2) distorted structure
   (3) banding or zoning of minerals
   (4) fragmental particles arranged in layers

3. Which characteristic determines whether a rock is classified as a shale, a siltstone, a sandstone, or a conglomerate?
   (1) the absolute age of the sediments within the rock
   (2) the mineral composition of the sediments within the rock
   (3) the particle size of the sediments within the rock
   (4) the density of the sediments within the rock

4. A rock that forms directly from land-derived sediments is
   (1) sandstone (3) gabbro
   (2) dolostone (4) granite

5. The diagram below represents a conglomerate rock. Some of the rock particles are labeled.

Which conclusion is best made about the rock particles?
   (1) They are the same age.
   (2) They originated from a larger mass of igneous rock.
   (3) They all contain the same minerals.
   (4) They have different origins.

6. Which rock was most likely formed from pebble sized sediment deposited in shallow water at an ocean shoreline?
   (1) shale (3) siltstone
   (2) basalt (4) conglomerate

7. Which kind of bedrock would most likely contain fossils?
   (1) a high-grade metamorphic rock layer made from mixed igneous and sedimentary layers
   (2) a series of alternating layers of shale and sandstone
   (3) a basalt lava flow from an ancient volcano
   (4) a mass of granite in the core of a mountain

8. Which sequence of events occurs in the formation of a sedimentary rock?

   (1) Source material eroded → Sediments deposited → Sediments compacted and cemented
   (2) Sediments compacted and cemented → Sediments deposited → Source material eroded
   (3) Sediments deposited → Sediments compacted and cemented → Source material eroded
   (4) Source material eroded → Sediments compacted and cemented → Sediments deposited

9. Which sample is composed of sediments 0.006 centimeter to 0.2 centimeter in size that were compacted and cemented together?
   (1) conglomerate (3) gneiss
   (2) sandstone (4) granite

10. Which sample would most likely contain fossils?
    (1) gneiss (3) sandstone
    (2) granite (4) basalt

11. Which sedimentary rock could form as a result of evaporation?
    (1) conglomerate (3) shale
    (2) sandstone (4) limestone
12. Base your answer to the following question on the diagram below.

Which sedimentary rock is shown in the diagram?

(1) conglomerate  (2) sandstone  (3) siltstone  (4) shale

13. Dolostone is formed by the

(1) local metamorphism of marble  (2) biological deposition of skeletons and shells  (3) chemical replacement of limestone  (4) mechanical deposition of silts

14. Large rock salt deposits in the Syracuse area indicate that the area once had

(1) large forests  (2) a range of volcanic mountains  (3) many terrestrial animals  (4) a warm, shallow sea

15. Which rock is formed by precipitation from evaporating water?

(1) granite  (2) sandstone  (3) shale  (4) salt

16. Limestone can form as a result of

(1) cooling of molten rock under the oceans  (2) metamorphosis of conglomerate rock  (3) precipitation from evaporating water  (4) radioactive decay of dolostone

17. The chemical precipitation of dissolved minerals from ocean water results in the formation of

(1) sedimentary rock  (2) metamorphic rock  (3) fine-grained igneous rock  (4) coarse-grained igneous rock

18. Which map symbol is used to represent an organically formed sedimentary rock composed mostly of carbon?

(1)  
(2)  
(3)  
(4)  

19. The diagram below represents the fossils found in a bedrock formation located in central Rhode Island.

In which type of rock were the fossils most likely found?

(1) sedimentary rock that formed in an ocean environment  (2) sedimentary rock that formed in a land environment  (3) igneous rock that formed in an ocean environment  (4) igneous rock that formed in a land environment

20. Which symbol represents the sedimentary rock with the smallest grain size?

(1)  
(2)  
(3)  
(4)  