

Rocks Study Guide

1. Classifying Rocks

- a. When studying a rock sample, geologists observe the rock's mineral composition, color, and texture.
- b. Geologists classify rocks into three major groups; igneous rocks, sedimentary rock, and metamorphic rock.
- c. Key Terms
 - i. Rock-forming mineral
 - ii. Granite
 - iii. Basalt
 - iv. Grains
 - v. Texture
 - vi. Igneous rock
 - vii. Sedimentary rock
 - viii. Metamorphic rock

2. Igneous Rocks

- a. Igneous rocks are classified according to their origin, texture, and mineral composition.
- b. People throughout history have used igneous rock for tools and building materials.
 - i. Extrusive rock
 - ii. Intrusive rock

3. Sedimentary Rocks

- a. Most sedimentary rocks are formed through a series of processes: erosion, deposition, compaction, and cementation.
- b. There are three major groups of sedimentary rocks: clastic rocks, organic rocks, and chemical rocks.
- c. People have used sedimentary rocks throughout history for many different purposes, including building materials and tools.
- d. Key Terms
 - i. Sediment
 - ii. Erosion
 - iii. Deposition
 - iv. Compaction
 - v. Cementation
 - vi. Clastic rock
 - vii. Organic rock
 - viii. Chemical rock

4. Rocks From Reefs

- a. When coral animals die, their skeletons remain. More corals build on top of them, gradually forming a reef.
- b. Limestone deposits that began as coral reefs provide evidence of how plate motions have changed Earth's surface. These deposits also provide evidence of past environments.

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- c. Key Term
 - i. Coral reef
- 5. Metamorphic Rocks
 - a. Heat and pressure deep beneath Earth's surface can change any rock into metamorphic rock.
 - b. Geologists classify metamorphic rocks according to the arrangement of the grains that make up the rocks.
 - c. Certain metamorphic rocks are important materials for building and sculpture.
 - d. Key Term
 - i. Foliated
- 6. The Rock Cycle
 - a. Forces deep inside Earth and at the surface produce a slow cycle that builds, destroys, and changes the rocks in the crust.
 - b. Plate movements start the rock cycle by helping to form magma, the source of igneous rocks. Plate movements also cause faulting, folding, and other motions of the crust that help to form sedimentary and metamorphic rocks.
 - c. Key Term
 - i. Rock cycle