

**Note-taking
Worksheet****Rocks****Section 1 The Rock Cycle**

- A. _____—mixture of minerals, volcanic glass, organic matter, or other material
- B. _____—model showing processes that create and change rock
1. _____ rock can be changed by heat and pressure into metamorphic rock.
 2. _____ rock can melt and cool to form igneous rock.
 3. _____ rock can be broken into fragments that may later form sedimentary rock.
- C. Conservation of _____—rock cycle never destroys elements of rocks but merely redistributes them
- D. _____ recognized the rock cycle in 1788 by observing Siccar Point, Scotland.

Section 2 Igneous Rock

- A. _____ form from magma found deep under Earth's surface.
1. Magma reaching the surface flows from a volcano as _____.
 2. Magma trapped below the surface forms large-grained _____ igneous rock when it cools.
 3. Magma cooling at or near Earth's surface forms small-grained _____ igneous rock.
 4. _____ igneous rocks are dark-colored and dense.
 - a. Contain _____ and _____ but very little silica
 - b. Basaltic lava flows _____ from a volcano.
 5. _____ igneous rocks are lower density and lighter color.
 - a. Contain more _____ and less iron and magnesium
 - b. Granitic magma is _____ and _____.
 6. _____ rocks have a more balanced composition of minerals and density than basaltic or granitic rocks.
 7. Crystal _____, large or small, can help identify an igneous rock as intrusive or extrusive.
 8. Volcanic glass rocks _____ so quickly that few crystals form.
 9. Some rocks have _____ formed around once-trapped air and other gases.

Note-taking Worksheet (continued)

B. Igneous rocks are _____ in two ways.

1. Where they formed—_____ (under the Earth's surface) or _____ (at or near the Earth's surface)
2. _____ type—basaltic, granitic, or andesitic

Section 3 Metamorphic Rocks

A. Metamorphic rocks—changed by _____, _____, and hot fluids

1. _____ and _____ result from one layer of rock on top of another layer.
 - a. Sometimes temperature and pressure are great enough to _____ rock, forming magma.
 - b. Sometimes pressure _____ mineral grains in rocks without melting them.
 - c. As pressure and temperature continue to increase over time, one type of rock can change into _____ metamorphic rocks.
2. Hot, water-rich _____ can move through rock, chemically changing it.

B. Classification of metamorphic rocks—by composition and _____

1. _____ texture—mineral grains flatten and line up in parallel layers or bands
2. _____ texture—mineral grains grow and rearrange but do not form layers

Section 4 Sedimentary Rocks

A. _____ rocks—mostly found on the exposed surface of Earth

1. Rock fragments, mineral grains, and bits of plants and animal remains moved by wind, water, ice or gravity are called _____.
2. Sedimentary rocks form in _____.

B. Sedimentary rocks—_____ by what they were made of and how they were formed

C. _____ sedimentary rocks—made from broken fragments of other rocks

1. When layers of small sediments stick together because of pressure, _____ occurs.
2. When water and other minerals move through open spaces between larger sediments, gluing them together, _____ occurs.
3. Detrital rocks often have a _____ texture.

Note-taking Worksheet (continued)

4. Rocks are named according to _____ and _____ of sediments.
- Sediment size can be large like _____ or small like _____.
 - Sediments can be _____ or have _____ angles.
- D. Chemical sedimentary rocks—non-clastic rocks formed when dissolved _____ came out of solution
- Limestone forms from _____, which was calcium carbonate in solution.
 - Rock salt forms from _____, which was salt in solution.
- E. Organic sedimentary rocks—made from _____ of once-living plants or animals
- _____—made of microscopic calcite-shell remains of animals
 - _____—made of plant remains, chemically changed by microorganisms and compacted over millions of years
- F. Rock cycle—a _____ and dynamic process