

Rock notes

Rock - _____ of more than one _____, volcanic glass, organic matter or other materials.

Three Rock types...

- 1.
- 2.
- 3.

Igneous Rocks

- Igneous means having to do with _____.
- forms when molten rock _____.
- _____ cools below the surface and forms _____ rocks.
- _____ cools above the surface and forms _____ rocks.

Intrusive Igneous

- Forms _____ from magma
- Cools _____
- Has _____ crystals - Coarse grained

Extrusive Igneous

- Forms _____ from lava
- Cools _____
- Has _____ crystals - fine grained

Volcanic Glass

- _____
- Instant cooling
- _____ crystals
- Usually lava into _____.

Igneous Rock Color

- Igneous rocks are identified partially by _____. The color is determined by what _____ are in the rock.

Basaltic Rock

- Called _____
- _____ in color
- High in Iron and Magnesium
- Low in Silica
- High _____ (Heavy)
- Calm volcanoes, the lava _____
- Example: Hawaii, black sand beaches

Andesitic Rock

- _____ in color
- Between _____ and _____.

Granitic Rock

- _____ in color
- High in silica
- Low _____ (Lighter)
- Builds up great _____ inside volcanoes
- Violent, _____, ashy eruptions

Metamorphic Rock

- Preexisting rocks are subjected to massive _____ altering them into a _____.
- The _____ thing to remember is...
- _____ !!!
- _____ !!!
- Heat and Pressure!!!
- _____ !!!
- Heat and Pressure!!!

Metamorphic Rocks are grouped by the way the grains are

_____.

Foliated

- When mineral grains _____ in parallel layers.

NonFoliated

- Layering does _____. Mineral grains grow and rearrange, but _____.

More Metamorphic Rock

- Form deep in the earth where high temperature and pressure exist
- new rock: _____
- new rock: looks different, _____.
- _____ in the rock _____.

Metamorphic Examples:

- Gneiss: changed from granite
- Marble changed from limestone
- Slate: changed from shale
- Quartzite: changed from sandstone

Sedimentary

- Form from the building up of _____.
- Sediments – _____ such as rock fragments, mineral grains, and bits of shell

Weathering

- Process by which water, wind, and ice _____ and break them into _____.

Erosion

- The _____ of sediment from one place to another by wind, water, ice, or gravity.

Sedimentary

- rocks with _____ grains are _____ GRAINED
- rocks with _____ grains are _____ GRAINED

Compaction

- _____ pushes down, if the rock fragments are small enough they can just stick together forming rock.

Cementation

- If fragments are big, like sand or pebbles, they cannot stick by themselves.
- _____ gets between the grains and as the minerals form the “cement” the grains _____.

Clastic or Deitrital

- Rocks that are sediments that have been _____ by compaction or cementation.

Chemical

- Form when dissolved minerals come _____.
- Salt evaporating from _____.
- _____ sinking to the bottom of the ocean and builds up forming limestone.

Organic

- Fossilized _____.
- Bits of shells or other _____ material
- Example: _____ is made of microscopic animal shells

Rock Cycle

- A model that describes _____ from one form to another through time.