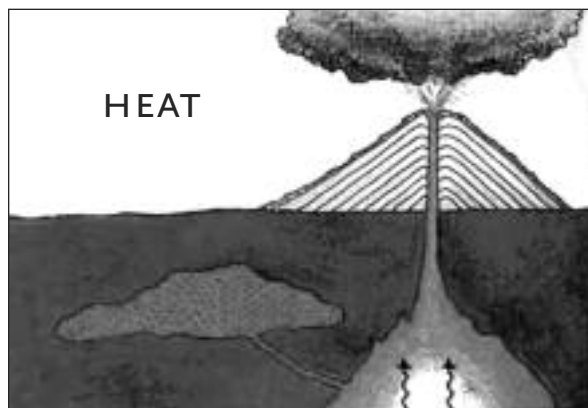




Rocks are very different from each other, depending on how they were formed and what has happened to them since. Scientists use three different categories for rocks.

IGNEOUS



Formed from minerals melted deep in the earth and cooled into rock.

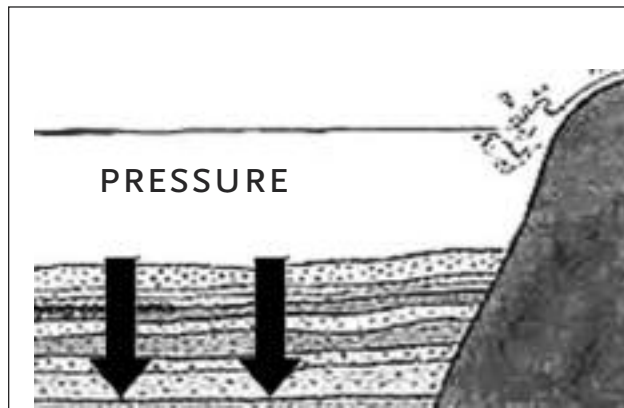
Possible Clues:

- Hard
- Large crystals if cooled slowly
- Holes formed if the rock cooled quickly above or near the earth's surface

Examples:

1. **Granite** – Formed deep underground. Has large crystals of Potassium feldspar (pink) and Quartz (clear). Very hard.
1. **Basalt** – Dark rock with some lighter minerals and sometimes iron. Can see holes where air was trapped as the rock cooled quickly. Small crystals.

SEDIMENTARY



Formed as sand, mud, and other materials are pressed down and harden over time into rock.

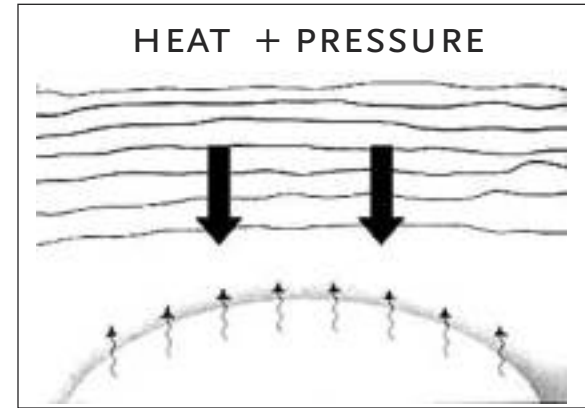
Possible Clues:

- Can see grains, like sand
- Softer
- Layers
- Fossils

Examples:

1. **Sandstone** – Formed from layers of sand. Can often see individual grains.
2. **Limestone** – medium grain size; often white or gray. Can be soft, like chalk.

METAMORPHIC



Formed when igneous or sedimentary rocks are changed by heat or pressure.

Possible Clues:

- Some crystals, small – medium, different sizes.
- Layers, may be wavy or broken.
- Easy flaking of layers.

Examples:

1. **Marble** – Metamorphosed limestone. Small to medium crystals. Softer rock, but does not flake.
2. **Schist** – Mix of smoky Quartz (clear, grayish crystals) between layers of Mica (black). Different size crystals.
3. **Slate** – Grains are very small and the same color. Does not have crystals. Can see layers.

Name: _____

Choose three rocks that interest you. Complete the chart below and decide whether you think the rock is *granite*, *sandstone*, *basalt*, *limestone*, *marble*, *schist*, or *slate*. Use the reverse side of this sheet to help you.

Think About...	Rock 1	Rock 2	Rock 3
Minerals <ul style="list-style-type: none">• How many different colored minerals do you see?• What colors?			
Layers <ul style="list-style-type: none">• Do you see any layers or stripes in the rock?• Are they straight or wavy?			
Crystals <ul style="list-style-type: none">• Can you see any crystals?• Are they large or small?			
Texture and Feel <ul style="list-style-type: none">• How hard are the minerals in the rock?• Do grains come off?• Does it flake easily?			
What else do you notice?			
What kind of rock do you think this is?			