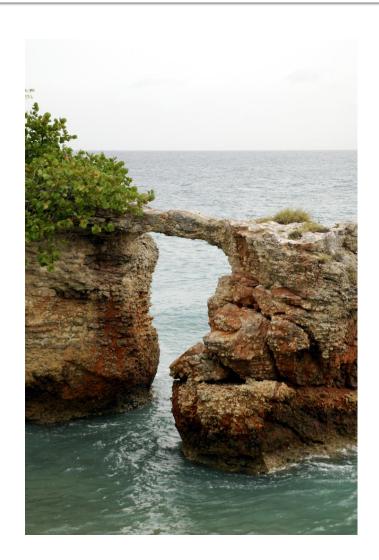
# Types of Rock

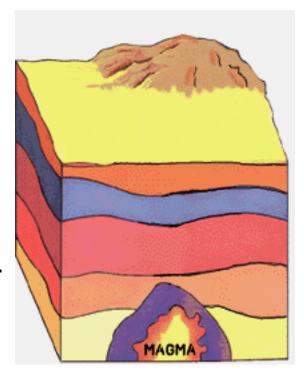
### What are Rocks?

- A rock is a <u>naturally</u> occurring solid mixture of one or more <u>minerals</u>, or <u>organic</u> matter
- Rocks are <u>classified</u> by <u>how</u> they are formed, their <u>composition</u>, and <u>texture</u>
- Rocks change over time through the <u>rock cycle</u>



## Igneous Rocks

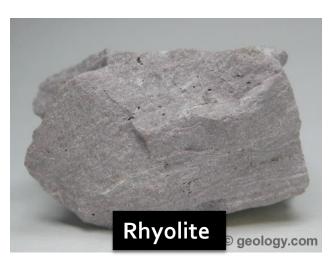
- Igneous rock begin as magma.
- Magma can form:
  - When rock is heated
  - When <u>pressure</u> is released
  - When rock changes <u>composition</u>
- Magma is a <u>mixture</u> of many <u>minerals</u> that is <u>melted</u> <u>below</u> the Earth's surface.



## Igneous Rocks



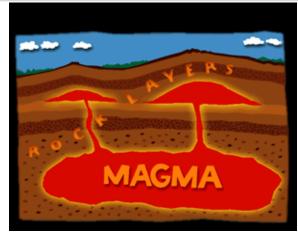






## Igneous Rocks

 Intrusive Igneous Rocks: magma <u>pushes</u> into surrounding rock <u>below</u> the Earth's surface



 Extrusive Rocks: forms when magma erupts onto the Earth's surface (lava), cools quickly with very small or no crystals formed



Sedimentary rock is formed by <u>erosion</u>

 Sediments are <u>moved</u> from one place to another

 Sediments are deposited in layers, with the <u>older</u> ones on the <u>bottom</u>

 The layers become <u>compacted</u> and <u>cemented</u> together

 Sedimentary Rocks are formed <u>at or near</u> the Earth's surface

No heat and pressure involved

Strata – <u>layers</u> of rock

 Stratification – the <u>process</u> in which <u>sedimentary</u> rocks are arranged in layers

#### **Breccia**



#### <u>Limestone</u>



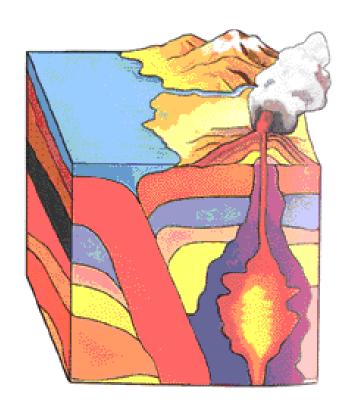
#### Coal



## **Metamorphic Rock**

- Meaning to <u>change</u> shape
- Changes with <u>temperature</u> and <u>pressure</u>, but remains solid

 Usually takes place <u>deep</u> in the Earth

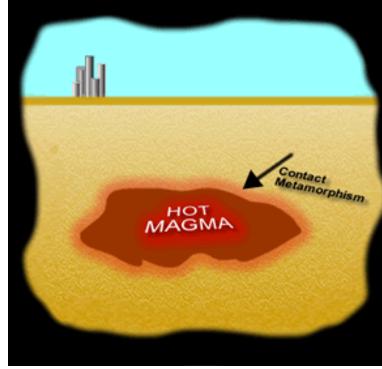


## **Metamorphic Rocks**

- Contact Metamorphism heated by nearby magma
- Increased temperature <u>changes</u> the <u>composition</u> of the rock, minerals are changed into <u>new</u> minerals

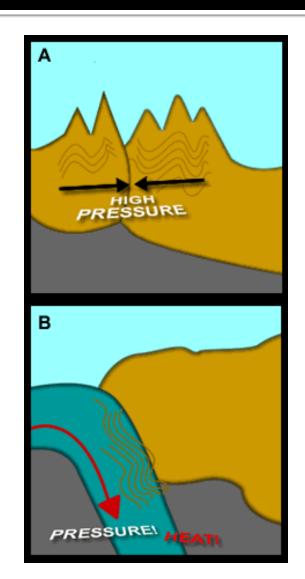






### **Metamorphic Rocks**

- Regional Metamorphism <u>pressure</u> builds up in rocks that is deep within the Earth
- Large pieces of the Earth's crust <u>collide</u> and the rock is <u>deformed</u> and <u>chemically</u> changed by <u>heat and pressure</u>



## **Metamorphic Rock**

#### Gneiss

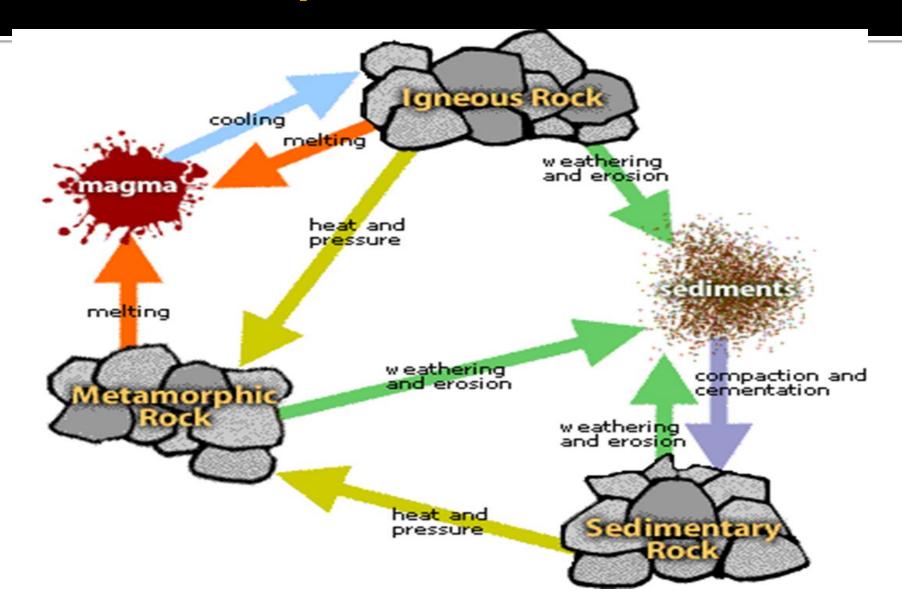


## **Metamorphic Rock**

#### Marble



## The Rock Cycle



## Simply Put Rock Cycle

