

# Earth Science Ch 5 - Earth's Rocks

What is a rock? What is the rock cycle?  
 What is uniformitarianism?  
 What value is there in knowing about rocks?

## Igneous Rocks:

magma vs lava -

**relationship between texture & location -**

**volcanic = extrusive -**

**plutonic = intrusive -**

**porphyry -**

composition/color	felsic	intermediate	mafic
volcanic: glassy or porous			
volcanic: fine-grained			
plutonic: coarse-grained			

**relationship between color & composition -**

felsic (feldspar + silica) -

mafic (ferromagnesian minerals Fe + Mg) -

## Sedimentary Rocks

Three kinds of sedimentary rocks

1) clastic:

What are cements:

2) chemical

3) organic

Sediment Material	Sedimentary Rock	Origin (clastic/chemical/organic)
clay (usually kaolin), silt		
sand grain (usually quartz)		
pebbles & sand		
angular fragments of rock		
tiny grains of calcite deposited from water		
sodium chloride precipitating from solution		
shells & shell fragments		
compressed plant remains		

Features:

**stratification**

**fossils**

**ripple marks & mud cracks**

**nodules, concretions, geodes**

## Metamorphic Rocks

Two processes

1) regional metamorphism

What is foliation?

2) contact metamorphism

Original Rock	Metamorphic Rock	Comments
conglomerate, granite, schist		
sandstone		
shale, mudstone		
limestone		