

Name:\_\_\_\_\_

**Regents Lab #8-Rock ID**

Period:\_\_\_\_\_

Introduction

Familiarize yourself with various samples of **Igneous, Sedimentary and Metamorphic rocks**. Use the ESRT help you identify the rocks samples in your kit than answer the questions

**Igneous Rocks**

Rock #	Color (Light, Dark)	Cooling Rate (Slow/Fast)	Density (Low or High)	Composition (Felsic or Mafic)	Texture	Where did it form? (Intrusive or Extrusive?)	Identifying characteristic	Name
1								
2								
3								
4								
5								

- 1) How are the intrusive rocks different than the extrusive rocks?
  
- 2) How does the cooling rate affect crystal size?
  
- 3) What are the three characteristics that make it easiest to identify igneous rocks?

## Sedimentary Rocks

_____Rock	_____Rock	_____Rock
Fragments of other rocks are cemented and compacted together create this type of rock.	Rocks that are formed when minerals dissolved in water precipitate, form this type of rock.	Rocks that are formed from sediments consisting of the remains of plants and animals.

Collection #	Clastic/Chemical/Organic	Grain Size (mm) and shape (Rounded or Angular)	Composition	ID	Map Symbol
11					
13					
ASK ME!					
15					

1. Where do you think most rocks formed? (what types of environment)? \*HINT what did many of them need to form?
  
2. How do you think the pebbles in conglomerate become rounded before it was cemented into a sedimentary rock?
  
3. Why do you think fossils are only found in sedimentary rocks and not in either igneous or metamorphic rocks? \*HINT look at rock cycle
  
4. Why does glass on a quartz sand beach become rounded and frosted, while glass on a carbonate sand beach stays sharp and glassy (hint: think about MOH!)?

## Metamorphic Rocks

\_\_\_\_\_ - occurs when rocks are heated by contact with magma or lava

\_\_\_\_\_ - occurs over large areas when rocks buried deep beneath the earth's surface are changed by increases in temperature and pressure

\_\_\_\_\_ - a type of metamorphic rock texture having mineral crystals arranged in parallel layers

\_\_\_\_\_ - a type of metamorphic rock texture that does not have layers of crystals

Rock #	Texture	Grain Size	Type of Metamorphism	Comments/Former Rock	Map Symbol	Name
6.						
7.						
8.						

1. Why do you think there is only one rock? Why didn't I give you any unfoliated rocks to identify?

2. What mineral is often found in schist?

3. Explain how slate (metamorphic rock) is formed from shale (sedimentary rock).

4. Which rock has was organic at one time?

BE PRECISE			
	Not Yet	Meets Standards	Exceeds Standards
<b>Collect and record data following a scientific procedure</b>		___ Use appropriate scientific tools to <b>gather</b> data  ___ Collect accurate data	__ <b>Consistently</b> collect accurate data __ Demonstrate <b>understanding</b> of what is collected
<b>Ways to improve Be Precise:</b> ___ Use ESRT ___ Record correct rock properties onto table ___ Identify accurate type and identifying features			

DISCERN			
	Not Yet	Meets Standards	Exceeds Standards
<b>Determine which details/evidence supports an idea</b>		___ Student <b>accurately utilizes</b> scientific details and/or evidence which <b>supports</b> a scientific concept	___ Student <u>consistently</u> <b>utilizes multiple</b> scientific details and/or evidence which <b>supports</b> a scientific concept
<b>Ways to improve Discern:</b> ___ Explain “how you know” you’ve identified the correct rock/mineral ___ Use ESRT ___ Use related examples to expand			