

Name: _____

Date: _____ Period: _____

Lab Activity: Rock Cycle

INTRODUCTION:

The rock cycle is a never-ending process that is constantly recycling rock. Igneous rocks form from magma or lava that solidifies into solid rock. Weathering breaks those igneous rocks into sediments [pebbles, sands and silts]. These smaller pieces are then buried and undergo compacted and/or cemented from overlying layers. If they get buried deep enough, heat and pressure from inside the Earth changes the sedimentary rocks into metamorphic rocks. Still deeper the rocks remelt into lava or magma and begin the process over again.

OBJECTIVE:

Identify the different mechanisms that create the three rock types and show how they are interrelated.

PROCEDURE A:

Fill in the words that are associated with the three rock types.

Igneous Rocks	Sedimentary Rocks	Metamorphic Rocks

PROCEDURE B:

1. For each of the unknown three rocks at your station, look for an observable characteristic and identify the rock type. Afterwards, use your Earth Science Reference Tables to determine the method of formation. Record your results in "Data Table #1"
2. When time is called, move to the adjacent station and repeat step 1. Be sure to record your results in the correct data table.

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DATA TABLE #1

	Observable Characteristics	Rock Type	Method of Formation
Rock A		<input type="checkbox"/> Igneous <input type="checkbox"/> Sedimentary <input type="checkbox"/> Metamorphic	
Rock B		<input type="checkbox"/> Igneous <input type="checkbox"/> Sedimentary <input type="checkbox"/> Metamorphic	
Rock C		<input type="checkbox"/> Igneous <input type="checkbox"/> Sedimentary <input type="checkbox"/> Metamorphic	

DATA TABLE #2

	Observable Characteristics	Rock Type	Method of Formation
Rock A		<input type="checkbox"/> Igneous <input type="checkbox"/> Sedimentary <input type="checkbox"/> Metamorphic	
Rock B		<input type="checkbox"/> Igneous <input type="checkbox"/> Sedimentary <input type="checkbox"/> Metamorphic	
Rock C		<input type="checkbox"/> Igneous <input type="checkbox"/> Sedimentary <input type="checkbox"/> Metamorphic	

DATA TABLE #3

	Observable Characteristics	Rock Type	Method of Formation
Rock A		<input type="checkbox"/> Igneous <input type="checkbox"/> Sedimentary <input type="checkbox"/> Metamorphic	
Rock B		<input type="checkbox"/> Igneous <input type="checkbox"/> Sedimentary <input type="checkbox"/> Metamorphic	
Rock C		<input type="checkbox"/> Igneous <input type="checkbox"/> Sedimentary <input type="checkbox"/> Metamorphic	

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DATA TABLE #4

	Observable Characteristics	Rock Type	Method of Formation
Rock A		<input type="checkbox"/> Igneous <input type="checkbox"/> Sedimentary <input type="checkbox"/> Metamorphic	
Rock B		<input type="checkbox"/> Igneous <input type="checkbox"/> Sedimentary <input type="checkbox"/> Metamorphic	
Rock C		<input type="checkbox"/> Igneous <input type="checkbox"/> Sedimentary <input type="checkbox"/> Metamorphic	

DATA TABLE #5

	Observable Characteristics	Rock Type	Method of Formation
Rock A		<input type="checkbox"/> Igneous <input type="checkbox"/> Sedimentary <input type="checkbox"/> Metamorphic	
Rock B		<input type="checkbox"/> Igneous <input type="checkbox"/> Sedimentary <input type="checkbox"/> Metamorphic	
Rock C		<input type="checkbox"/> Igneous <input type="checkbox"/> Sedimentary <input type="checkbox"/> Metamorphic	

DATA TABLE #6

	Observable Characteristics	Rock Type	Method of Formation
Rock A		<input type="checkbox"/> Igneous <input type="checkbox"/> Sedimentary <input type="checkbox"/> Metamorphic	
Rock B		<input type="checkbox"/> Igneous <input type="checkbox"/> Sedimentary <input type="checkbox"/> Metamorphic	
Rock C		<input type="checkbox"/> Igneous <input type="checkbox"/> Sedimentary <input type="checkbox"/> Metamorphic	

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DISCUSSION QUESTIONS:

1. How are igneous rocks formed?
2. How are sedimentary rocks formed?
3. How are metamorphic rocks formed?
4. Why do limestone and marble react with hydrochloric acid [HCl]?
5. Describe the steps in which the rock shale changes into the rock gneiss.

CONCLUSION: What do igneous, sedimentary and metamorphic rocks all have in common?