Rock Cycle Interactive Guided Worksheet

Name: _____

Date:_____

Website used: www.learner.org/interactives/rockcycle

Essential Question: How Do Rocks and Minerals Cycle Through our Environment?

Enduring Understandings: Earth's Materials (rocks and minerals) are formed and may undergo change by certain conditions, such as erosion or metamorphism and can occur over various amounts of time.

Assessing Prior Knowledge: Fill out this KWL sheet together with the class. At the end of our activity we will fill out the L portion of the chart.

What we Know	What we Want to Know	What we've Learned

Using the website and these note pages you will journey through the rock cycle, learning about how rocks are formed, what types of rocks there are, build your own rock collection and be assessed on your knowledge. Follow the directions throughout the worksheet to guide you through the website. You will be stopping at various points along the way to discuss what you are learning with your partner. When you see the **STOP!** sign stop what you are doing, turn to your partner and complete the interview questions.

Introduction

Rocks come in cool _____, _____, _____ and _____ and are found all over the world.

Look at the rock next to you. Pick it up and feel it. Describe it's color, shape, texture and size below.

Prediction: Do you think this rock was formed inside or outside (on the surface) of the earth? Why?

Look at the rock cycle diagram on the webpage. Where do you think your rock belongs in the cycle?

_____

STOP! Turn to your partner and tell them about your rock.

Look at the box below the student. What will you be doing during this activity?

Creating a _____,
learning about the _____ main types of rocks, finding out how to _____
_____ and seeing how rocks change _____.

Before you go to the next webpage, fill out this rock cycle diagram:

Click on “begin with types of rocks”

Types of Rocks

How many main types of rocks are there? (circle the correct answer)

1 2 3 4 5

STOP! Turn to your partner, ask each other the following question - how many different kinds of rocks do you think exist? Not types but varieties of those types. Write your number down.

Sedimentary Rocks

Sedimentary rocks are formed from particles of _____
_____.

The sedimentary particles accumulate (build up) in _____ and over a _____ hardens into _____.

Real life tip ** Always use caution when rock climbing on sedimentary rocks - they break apart very easily!!

Bonus questions → What environment would you be in if you were seeing sedimentary rocks? (circle your answer)

A beach or shoreline Mountains

Example of a sedimentary rock _____

STOP! Can fossils be found in sedimentary rocks? Discuss with your partner.

Metamorphic Rocks

Metamorphic rocks are formed _____ from the metamorphosis (change) that occurs due to _____ and _____. The rocks resulting from these processes often have _____ layers, shiny _____ that are formed by _____ and grow _____ over time.

An example of a metamorphic rock is _____.

Bonus question → how might a rock come into contact with heat and pressure?
_____

<u>** Remember** Metamorphic = Heat + Pressure</u>

STOP! Tell your partner one thing you now know about metamorphic rocks.

Igneous Rocks

Igneous Rocks are formed when _____ cools and hardens. They can be formed inside and on the earth's surface.

Sometimes magma _____ and other times it erupts onto the surface from a volcano.

When magma erupts onto the surface of the earth it is then called _____.

When lava cools quickly do crystals form? (circle your answer) Yes or No

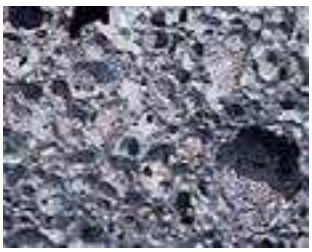
Based on your answer above, does lave need to cool quickly or slowly for crystals to form?
_____

The rock looks _____ and _____. There can be _____ trapped in the rock when it cools leaving _____ and _____ spaces in the rock.

STOP! What is the difference between magma and lava? Discuss with your partner.

Using the diagram on the bottom of the webpage, complete the matching by matching the correct texture with it's definition.

1. Glassy Surface _____	A. 
2. Sand or Pebbles _____	B. 
3. Fossils _____	C. 

4. Ribbon Like layers _____	D. 
5. Crystals _____	E. 
6. Gas Bubbles _____	F. 

Before we move on to creating our own rock collection, let's review! Go back to the front page of this packet and complete the "What We've Learned" portion of the KWL chart.

Final thoughts - go back to your rock sample. After what you've learned today, what more can you say about your rock? Have your predictions changed? Identify the textures above that are present in your rock, if any.

How do rocks and minerals cycle through the environment?

Building Your Rock Collection

Fill out this diagram with the names of each rock you collect and one fact about them.