Name_____ Date_____ Section_____

Life Science 7: Rock Collection and Rock Cycle Project

All rocks are the same, right? Many people think that's true, but they couldn't be more wrong. There are many different kinds of rocks, and each has a story to tell about where and how it formed. If you look closely at rocks, you'll find there are striking differences between them, just as there are differences between various kinds of trees or birds. In this project, you will create a display of the rocks you collected over the summer.

General Project Rules:

• In your lab group of 4, combine your individual rock collections to make one complete 9 – 12 specimen rock collection that contains: (***20 points total***)

- 3 - 4 distinct sedimentary rocks
- 3 - 4 distinct igneous rocks
- 3 - 4 distinct metamorphic rocks

• Classify each rock as sedimentary, igneous, or metamorphic.

• Identify each rock sample using a field guide to rocks and minerals, a rock kit, or use the Internet, as long as you cite your sources using MLA standard citation.

• Create a display of your rock collection that shows off your best rock samples and your best efforts at classification and identification. Use an index card to make an information card for each rock in your display (follow the **A Record of Each Rock** guidelines). On this card, include as much information about the rock as you can. Booklets are also ok.

• Prepare a 3 – 5 minute presentation to the class of your completed group rock collection. See **Rock Collection and Rock Cycle Project Presentation Rubric** for more information. Describe each rock, including how your group classified it and identified it.

Project Hints:

• Examine each rock with a hand lens. Notice its texture. Do a streak test. Note its color. Try to identify the minerals in it. Determine the rock's relative density to water. In other words, do everything you can to correctly classify and identify the rocks you collected.

• As you create your rock display, think of how you've seen other sorts of collections displayed. Display each rock in a separate compartment, with numbers on the rocks or labels nearby. Your information card can be part of the display, or you could make special labels.

• As you prepare your presentation, think of what you want to say and the order in which you want to present the information.

• PLEASE refer to the **Rock Collection and Rock Cycle Project Presentation Rubric** for completion/assessment guidelines for your presentation.

• Some helpful websites:
http://geology.com/rocks/
https://kids.usa.gov/teens/science/geology/index.shtml
http://www.usgs.gov/

Project Time Line: You will be given class time to complete this project with your lab group. Please fill-in dates below:

1. Classify your rocks into major groups _____

2. Identify rocks using classroom and online resources _____

3. Create rock collection display _____

4. Present rock collection to class _____

A Record of Each Rock (***30 points total***)

Make a record card for each rock in your collection. To help you in this task, make completed copies of this information for each rock on index cards [(4" x 6") or (5" x 8")]. Your descriptions must include this information.

Rock number: _____

Description of Rock:

_____

_____

Classification (igneous, sedimentary, metamorphic):

_____

Reasons for classification:

_____

_____

Identification of rock (specific kind of rock):

_____

Reasons for identification:

_____

_____

Source(s) used for information:

_____

_____

Group Member
Name(s):_____

Rock Collection and Rock Cycle Project Presentation Rubric

Your group presentation must follow these criteria:

_____ Answers the following questions: (5 pts)
"What is a rock?"
"How do rocks form?"
"Why study rocks?"

_____ Incorporates your actual rock specimens (5 pts)

_____ Include a general overview of the **Rock Cycle** and discussion: What is it? How does it happen? Why does it happen? etc. (5 pts)

_____ Demonstration/Interpretation of the **Rock Cycle** (can be an original picture/drawing, animation, video, 3D model, live performance, etc.) (10 pts)

_____ Proper spelling and grammar in all written material (5 pts)

_____ Meets 3 – 5 minute presentation time limit (5 pts)

_____ Demonstrates teamwork, collaboration, and equitable contribution of all group members (5 pts)

Project Presentation Total Points (40 pts): _____

Group Rock Collection Total Points (20 pts): _____

A Record of Each Rock **Index Cards Total Points** (30 pts): _____