

UNIT 2: Earth Materials

LAB 2-6: THE ROCK CYCLE

INTRODUCTION: A **rock** is any natural aggregate of minerals, mineral-like solids, glass, or organic particles. The properties that can be observed in a rock are clues to its origin. These properties are used to classify it.

Rocks form as a result of several different Earth processes which interact in a continuous rock cycle. These rock-forming processes produce the three general types of rocks you have previously studied: igneous, sedimentary, and metamorphic. Each of these rock types forms characteristic rock bodies and has characteristic textures.

OBJECTIVE: You will classify rocks and investigate how all rock-forming materials are part of a rock cycle that has igneous, sedimentary, and metamorphic components.

VOCABULARY:

aggregate:

weathering:

erosion:

igneous rock:

sedimentary rock:

metamorphic rock:

vesicular:

stratification:

PROCEDURE:

1. Obtain a set of rocks from your instructor.
2. Arrange your samples in the order demonstrated by your instructor.
3. Complete the Report Sheet using your samples and the rock charts in the Appendix.

REPORT SHEET

#	Observed Properties	Texture	How Formed	Rock Type
1				
2				
3				
4				
5				
6				
7				
8				
9				

NAME _____ DATE _____

UNIT 3: Earth Materials

LAB 5-6: THE ROCK CYCLE

OBJECTIVE: You will identify rocks and investigate how all rocks form in nature as part of a rock cycle. This lab focuses on sedimentary, igneous, and metamorphic rocks.

INTRODUCTION: A rock is any natural aggregate of minerals, mineral grains, or organic particles. The properties that can be observed in a rock are due to its size, shape, and composition. The rock-forming processes produce the three general types of rocks: igneous, sedimentary, and metamorphic. Each of these rock types is characterized by its own set of diagnostic features and has characteristic textures.

PROCEDURE:

- Obtain a set of rocks from your instructor.
- Analyze your samples in the order demonstrated by your instructor.
- Complete the report for each sample and place it in the appropriate folder.

DISCUSSION QUESTIONS: *(Answer in Complete Sentences)*

1. Why do rocks vary in color?
2. In general, what is meant by the texture of a rock?
3. What general characteristics are used to identify igneous rocks?
4. What general characteristics are used to identify sedimentary rocks?
5. What general characteristics are used to identify metamorphic rocks?
6. Why is it unlikely that fossils would be found in igneous rocks?
7. If fossils are found in metamorphic rocks, how would they likely appear?
8. From the rock cycle, describe the changes that an igneous rock could undergo.
9. From the rock cycle, describe the changes that a sedimentary rock could undergo.
10. From the rock cycle, describe the changes that a metamorphic rock could undergo.

CONCLUSION: Describe the rock cycle.