

Unit 3 Handout 107

Lesson 13: Observing Igneous Rock

Purpose: Observe the properties of five igneous rock and sort and classify igneous rocks on the basis of their characteristics.

Guiding Questions: How are igneous rocks classified?

1. Read and follow steps 1-3 on page 177. Wait before moving on.
2. Read step 4a (p. 177) and step 5 a-d. Record your observations in the table below.

Rock #	Colors of Minerals	Texture*	Other Observations (pictures, notes, composition, etc.)

*Texture options: Fine (small) grain, coarse (large) grain, glassy (no visible grain), porphyritic (both fine and coarse grain)

3. Now that you have made observations of the igneous rock, classify them into groups of your choosing. You will decide how many groups there are and what the common characteristic(s) between them is/are. Use the table below to indicate which rock numbers are together and provide your explanation for why they are grouped together. You will need to divide the table into rows based on your classification.

Our Igneous Rock Classification System	
Rock No	Reason we grouped them together

4. Look at the minerals in figures 13.1, 13.3, 13.4, and 13.5 on pages 176-178. Use these photographs to identify some of the minerals that make up each of the rocks. List these on the data table on the front side of this sheet.

5. Read page 179 and the answer the following questions.

a. What are the variables that determine the classification of igneous rock?

b. Which of your rock samples do you think cooled slowly? Which rocks do you think cooled quickly? How do you know?