

Unit  
3Handout  
\_\_\_\_\_*Igneous Activities***Activity 1****1.** Describe the texture of the granite.

a. Grain size: \_\_\_\_\_ b. Grain Shape: \_\_\_\_\_

c. Grain pattern: \_\_\_\_\_

**2.** What is the origin of this rock?

a. Where did this rock form? \_\_\_\_\_

b. What molten substance formed this rock? \_\_\_\_\_

c. Did it cool slowly or quickly? \_\_\_\_\_

d. How do you know your answer to c? \_\_\_\_\_

\_\_\_\_\_  
\_\_\_\_\_**3.** Granite is an igneous rock made of several different minerals. On your tray are several minerals. Try to determine which minerals are in the granite. Use the hand lens to help you determine your answer. Which three minerals are in granite?

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**4.** Last year, a student said "The black mineral in granite is obsidian." The student is incorrect for two reasons. First, obsidian is not a mineral. What else is a reason why obsidian would not be found in granite?  
*Hint: think of the origins of each rock (granite and obsidian).*

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*Activity one questions are continued on the back.*

**Activity 1  
Continued:**

5. Is granite high or low in silica? To answer this question, first answer the questions below.

Minerals in Granite	Chemical Formula
1	
2	
3	

Find the chemical formulas on pages 196-198 in the textbook.

6. Silica is a compound that is made of which two elements?

\_\_\_\_\_

7. Igneous rocks that are low in silica often have magnesium (Mg) and iron (Fe) in their chemical formulas. Rocks that are high in silica often have Feldspar and silica (Si + O) in them. We say these rocks are felsic. Is granite mafic or felsic? \_\_\_\_\_

8. Mafic = low silica. Felsic = high silica. **Therefore**, is granite high or low in silica? \_\_\_\_\_

**Activity 2**

Watch the demonstration and then answer the following questions.

1. Why was the demonstration an example of how igneous rock forms?

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 \_\_\_\_\_  
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2. Would the demonstration be an example of an extrusive or intrusive rock? Explain (scientifically) how you know. \_\_\_\_\_

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