

Name _____ Pd _____ Date _____

Aim: Can we see the relationship between rocks and minerals?

Introduction:

You've learned a bunch about minerals. And now, you've begun to learn about rocks. Most rocks are made of minerals. Okay, there I've said it! Now, let's prove it. I want you to examine rocks and minerals to see if you can detect similarities—or maybe differences. I want you to observe the rocks and minerals and then make some inferences about the presence of minerals in rocks.

Materials:

You will have 3-4 minerals: olivine, feldspar, quartz and amphibole, a hand lens, a piece of gneiss, a sample of conglomerate, an ESRT and a sample of granite.

Procedure: You will be working together as a group, but make sure that *each* of you sees everything!

1. Pick up a piece of gneiss and a hand lens.
2. Describe the gneiss. What do you see? Fill in the data table below.
3. Repeat this process with the granite, and then with the conglomerate.
4. When you are finished examining the rocks look at the minerals. Write their descriptions in Table 2.
5. Now compare Table 1 and Table 2, and your mineral and rock samples. Which minerals do you think are found in each of the rocks you've examined? Place the names of the minerals in Table 3.
6. Now get out your ESRT (or mine if you don't have yours.). Find the rocks you've examined.
7. Classify the rocks as sedimentary, igneous or metamorphic.
8. Using the appropriate chart in the ESRT, find out which minerals are found in your rocks. Place those in the table below.

Results: Table 1

	Gneiss	Granite	Conglomerate
Are there crystals?			
Are the crystals big? Small?			
What colors do you see?			
Bands or stripes (Y or N)			

Results: Table 2

	Name of Mineral ▼	Name of Mineral ▼	Name of Mineral ▼
Mineral			
Description			

Results: Table 3

	Gneiss	Granite	Conglomerate
Minerals you think you see in the rock			

Results: Table 4

	Sedimentary	Igneous	Metamorphic
Rock Name			
Minerals (from ESRT)			

Evaluate your work.

1. Where were you right? Where were you wrong?

2. Why do you think you made the mistakes that you did? What was confusing?

Summary: Fill out a lesson evaluation sheet.