

LAB 2 – ROCK IDENTIFICATION

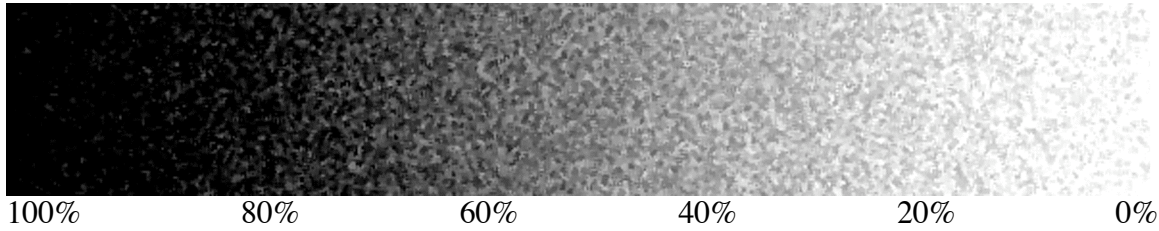
1. Which two basic rock types are commonly made of interlocking crystals? Name the types, and give two examples (rock name and number) that are present in your kit.

2. How can you tell the difference between rocks of these two types?

3. Which two basic rock types include rocks that look banded or layered? Name the types, and give two examples that are present in your kit.

4. How can you tell the difference between rocks of these two types?

5. Use the scale below to estimate the percentage of dark minerals in each hand sample of intrusive igneous rocks:



granite: _____ diorite: _____ gabbro: _____

6. Which of the three basic rock types is likeliest to contain fossils? Why? Why not the other two?

7. What's the difference between detrital and chemical sedimentary rocks?

8. Use your rock samples to describe how you could distinguish detrital and chemical sedimentary rocks. (In other words, what are the differences in texture, composition, etc. between the two?)

9. Use the rock sample kits to fill in these blanks:

Rock #3 and rock #__ are both _____, but the difference between them is that rock #3 is more mafic.

Rock #1 and rock #__ are both _____, but the difference between them is that rock #1 is intrusive.

Rock #6 and rock #__ are both mafic, but the difference between them is that rock #6 is _____.

Rock #8 and rock #9 are similar in composition, but how do they differ in structure? And why are they different in structure?

Rock #__ and #__ fizz when you drop weak acid on it, because they're made mostly of the mineral _____.

Rock #13 and rock #14 formed under different environments. Make a hypothesis: what were conditions like when rock #13 and rock #14 formed, and how did those conditions affect the features that you see?

Rock #16 could metamorphose into rock #___ if it was compressed on all sides.

Rock #1 could metamorphose into rock #___ if it was compressed in one direction.

Rock #15 could metamorphose into rock #___ if it was compressed on all sides.

Rock #21 could metamorphose into rock #___ and then into rock #___, if it was compressed in one direction.

Rock #26 is formed when mafic intrusive rocks such as _____ are metamorphosed by heat and pressure.

Rock #29 and #30 were formed by *contact metamorphism*. What is contact metamorphism?

Rock #29 differs from #30 because #30 was metamorphosed by *metasomatism*. What is metasomatism? And from looking at the samples, what changes does metasomatism seem to make in a rock? Describe in your own words.
