Some of the samples used in Mineralogy Lab are museum specimens. Please do not destroy or heist them. You can do just about anything you want to the grungy ones, but be nice to the pretty specimens as they are irreplaceable.

Name_____

MINERALOGY LABORATORY
Sedimentary and Related Minerals - Halides, Carbonates, Borates, and Clays

1. BOCKS OF ROX

There are four trays each containing mineral varieties of Halides, Carbonates, Borates, and Clays. Examine all of the mineral varieties and record their **physical properties, chemical composition, habit, occurrence, and use** in your lab notebook. Then, answer the following questions.

A) What chemical similarities/differences do the minerals of the group have? Specifically, write down the chemical formulas of each and show the differences.

B) What physical similarities/differences do the minerals of the group have? Specifically, write down the characteristics of each mineral variety and compare and contrast.

2. DEFINITIONS – Write out the definition of each term below.

clastic rocks-

chemical sedimentary rocks-

micrite-

sparry calcite-

argillaceous-

3. SEDIMENTARY MINERALS IN THIN SECTION

Answer the following questions using the appropriate section, and fill in the table below.

#W45
This section is composed primarily of quartz and feldspar. Is this a clastic or chemical sedimentary rock? How can you tell? If clastic, describe the particle size, rounding, sphericity, sorting, bedding, and any other notable features (such as ooliths, fossils, etc.). If chemical, describe grain size.

#W52
This section is composed chiefly of a matrix of illitic clay. Within the matrix there exists a few calcite rhombs, a few quartz and feldspar pieces, and some opaque minerals. Observing the clay matrix, describe the particle size and interference colors. Is the clay easy to see? Is this a clastic or chemical sedimentary rock? How can you tell? If clastic, describe the particle size, rounding, sphericity, sorting, bedding, and any other notable features (such as ooliths, fossils, etc.). If chemical, describe grain size.

#W62
This section is dominated by oolitic calcite. What is an oolite? Describe what an oolite looks like in thin section. Describe the calcite. What order interference colors does calcite exhibit in this section? Does the calcite show any twinning? Is the calcite fine or coarse-grained?

Rock #	Rock Name
1 slide 45	
2 slide 52	
3 slide 62	

LAB NOTEBOOK

I need to check your mineral description notebooks. Show them to me by Thursday at 5:00. These should be your notebooks and not the notes you wrote down on the lab handouts. They should be neat and organized. Remember they need to follow the format of the handout from the first week of lab. This will be a pass - fail check. If I see them you pass. If I don't you fail.