E/S Science-Drusky Igneous Rock Identification Lab Name:\_\_\_\_\_\_\_\_\_\_\_\_

**PART 1:** Fill in the following table from the 6 common rocks we talked about in class:

(gabbro, diorite, rhyolite, andesite, granite, basalt)

|  |  |  |  |
| --- | --- | --- | --- |
|  | Mafic | Intermediate | Felsic |
| Aphanitic |  |  |  |
| Phaneritic |  |  |  |

**PART 2:** Go to the following website and practice identifying rocks prior to completing the remainder of this assignment. http://profharwood.x10host.com/GEOL101/Labs/Igneous/igsamp02.htm

**PART 3:** Fill in the chart below using rock samples.

PROCEDURE:

1. Determine the overall color of the sample: some examples include pink, light grey, dark grey, black, white, etc.
2. What is the composition of the sample?

mafic, intermediate, or felsic are your options

1. What is the texture of the sample?

Aphanitic, phaneritic, vesicular, glassy, porphyritic, and pegmatitic are your options

1. What are the major minerals present in the rock?
   1. Mafic: plagioclase, pyroxene, olivine
   2. Intermediate: plagioclase, amphibole, biotite
   3. Felsic: potassium feldspar, quartz, biotite, muscovite
2. What is the rock name – refer to the list above. There is only one of each!

Pumice, Scoria, Obsidian, Rhyolite, Porphyritic Rhyolite, Basalt, Vesicular Basalt, Granite, Gabbro

|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| Sample # | Color | Composition | Texture | Major Minerals | Rock Name |
| 1 |  |  |  |  |  |
| 2 |  |  |  |  |  |
| 3 |  |  |  |  |  |
| 4 |  |  |  |  |  |
| 5 |  |  |  |  |  |
| 6 |  |  |  |  |  |
| 7 |  |  |  |  |  |
| 8 |  |  |  |  |  |
| 9 |  |  |  |  |  |
| 10 |  |  |  |  |  |

**PART 4:** Post-Lab Assignment

Procedure: Classify the following rocks into the categories below.

Granite, basalt, obsidian, rhyolite, pumice, scoria, andesite, diorite, gabbro

* The object is to see the relationships between the terms and the rocks. There will definitely be more than one rock listed for each.

1. List all of the rocks that are felsic.

2. List all of the rocks that are intermediate.

3. List all of the rocks that are mafic.

4. List all of the rocks that are intrusive.

5. List all of the rocks that are extrusive.

6. List all of the rocks that are volcanic.

7. List all of the rocks that are plutonic.

8. List all of the rocks that can be aphanitic.

9. List all of the rocks that can be phaneritic.

10. List all of the rocks that can be vesicular.

11. List all of the rocks that can be porphyritic.

12. List all of the rocks that can be pegmatitic.