Name \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Lab: Are you Ready to Rock???

Identifying Rock samples

|  |  |  |
| --- | --- | --- |
| **Rock Type** | **Rock sample #** | **Rock sample Name** |
| Igneous | I-1 |  |
| Igneous | I-2 |  |
| Igneous | I-3 |  |
| Metamorphic | M-4 |  |
| Metamorphic | M-5 |  |
| Metamorphic | M-6 |  |
| Sedimentary | S-1 or S-2 |  |
| Sedimentary | S-3 |  |
| Sedimentary | S-9 |  |

**Igneous Rocks**

1. Using the **Igneous Rock ID chart**, identify the igneous rocks. Make sure everybody in your group has a chance to handle the rocks, use their charts, and has some input in the naming them. (This is Important.)
2. What does texture look like in an igneous rock? Describe how you used this concept to ID your rocks: How does this relate to the terms intrusive and extrusive?
3. What does composition look like in an igneous rock? Describe how you used this concept to ID your rocks.
4. What evidence do you see in igneous rocks that show they are really made of minerals? Give specific examples..
5. Examine the samples of pumice and scoria. How are they alike? How are they different?
6. Rocks like pumice and scoria are extrusive. How do you suppose they got their holes?
7. Rocks like granite are intrusive. How is granite similar to pumice? How is it different? Give specific examples.

**Sedimentary Rocks**

1. Using you **Sedimentary Rock ID Chart**, identify the sedimentary rocks. Make sure everybody in your group has a chance to handle the rocks, use their charts, and has some input in the naming them. (This is Important.)
2. Sandstone and conglomerate are really made of the same stuff. Why are they classified as 2 separate rocks?
3. How do non-clastic rocks like limestone, help demonstrate a major difference between minerals and rocks?
4. The Bonneville Salt Flats here in Western Utah were deposited by Lake Bonneville some 10,000 years ago. Why are they classified as “evaporates”? Which chemical phase change had to occur to change them?

**Metamorphic Rock**

1. Using your **Metamorphic Rock ID Chart,** identify the metamorphic rocks. Make sure everybody in your group has a chance to handle the rocks, use their charts, and has some input in the naming them. (This is Important.)
2. Just using your hands compare the density (heaviness) of sedimentary, igneous, and metamorphic rocks. How can this difference be explained?
3. Why does the metamorphic rock gneiss look so much like the igneous rock granite? How does this observation help geologists’ construct a rock cycle?
4. The metamorphic rock marble does not look like the sedimentary limestone rock that it formed from. How is this best explained?