**Name\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period\_\_\_\_\_Date\_\_\_\_\_\_\_\_\_\_\_\_**

**Geology Scientific Method Lab**

**Objectives:**

* **To practice the scientific method**
* **To learn and distinguish among some common earth materials**

**Use the box of samples labeled Geologic Materials to complete the following exercise. Each group needs 1 set of samples.**

**Procedure**

1. **Spread out the samples on your lab table**
2. **In your own words, briefly describe the characteristics of each of the samples in your box.**

|  |  |
| --- | --- |
| **Sample #** | **Characteristics** |
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1. **A) Make a list of characteristics that you think might be useful for dividing the categories into 3 or 4 MAJOR categories. List these characteristics in the first column below.**

**B) When you are finished, examine each sample in your box and assign it to ONE of the major categories you needed. Use the scientific method and revise your categories if necessary. Write the sample numbers in the second column.**

|  |  |
| --- | --- |
| **Characteristic Category** | **Sample Number(s)** |
|  |  |
|  |  |
|  |  |
|  |  |

**C. Did you have to revise your list at all? If so explain how. If not, explain how you knew to categorize the way you did.**

1. **List three characteristics you might use to distinguish between the samples within each major category**

|  |
| --- |
| **Subdivision Based on:** |
|  |
|  |
|  |

1. **When your group is happy with the classifications. Have the teacher “test” your system with some new samples. If necessary, modify your classification system. WRITE ANY MODIFICATIONS BELOW.**
2. **At the end of the exercise, each group will discuss their classification system with the rest of the class. (Be prepared to defend your choice of distinguishing characteristics.) We will try to establish one system that everyone agrees upon and compare it with the way a geologist would categorize these materials.**
3. **Explain how this activity demonstrates the scientific method. *(This section is a large portion of your grade!!)***