Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

MINERAL IDENTIFICATION

Question: What methods can we use to identify minerals?

Procedure: We will be using the physical properties of minerals to identify 14 minerals.

Materials at each station:

-3 to 4 minerals

-Streak plate

-Glass plate

-Penny

Procedure:

1. Record your data in the chart provided
2. You will be testing each mineral for the following properties and then determine the mineral by using the identification chart that will be given after you have completed your chart.
   1. Color
   2. Luster
      1. Metallic
      2. Non-metallic
   3. Streak
   4. Hardness
      1. Fingernail- 2.2-2.5
      2. Penny- 3.2-3.5
      3. Glass plate- 5.5
      4. Streak plate- 7.0
   5. Breakage
      1. Cleavage
      2. Fracture

|  |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Name |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Break Cleavage/Fracture |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Density  (g/mL) | 6.0-8.0 | 1.0-3.0 | 1.0-3.0 | 1.0-3.0 | 1.0-3.0 | 2.0-4.0 | 2.0-4.0 | 1.0-3.0 | 2.0-4.0 | 1.0-3.0 | 4.0-6.0 | 1.0-3.0 | 3.0-5.0 | 1.0-3.0 |
| Hardness  1-10 |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Color of  Streak |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Luster  M/NM |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Color |  |  |  |  |  |  |  |  |  |  |  |  |  |  |
| Mineral # | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 | 13 | 14 |

Questions: Using the information from you lab, answer the following questions in COMPLETE SENTENCES.

1. Which mineral was the hardest to identify? Why?
2. Which mineral was the easiest to identify? Why?
3. Which physical property was the most useful in identifying minerals? Why?
4. Which physical property was the least useful in identifying your minerals? Why?

**MINERALS:**

Graphite

Galena

Pyrite

Bauxite

Gypsum

Muscovite

Halite

Calcite

Flourite

Orthoclase

Augite

Quartz

Garnet

Corundum