**Minerals 101 – Student Worksheet**

1. Rocks are made of different combinations of Minerals ?
2. Minerals are made of elements.
   1. Define an element: Any substance that cannot be broken down into simpler substances.
3. Outline the properties of minerals with an explanation for each:
   1. **S** – Solid
      1. Not a liquid or gas
   2. **N** – Naturally Occurring
      1. Found in nature not man made
   3. **I** – Inorganic
      1. Not living, not formed by living processes
   4. **F** – Fixed Composition
      1. Has a chemical formula
   5. **C** – Crystal Form
      1. A structure where atoms are in an orderly and repeated pattern.
4. What are the 5 steps for mineral identification?
   1. Luster
   2. Hardness
   3. Color
   4. Cleavage
   5. Streak
5. Define: Luster
   1. Luster refers to how light is reflected from the surface of a mineral.
6. Define: Hardness
   1. Hardness of a mineral is its ability to resist scratching.
7. Who developed the hardness scale, and what mineral has a hardness of 10?
   1. Friedrich Mohs, and the diamond
8. Define: Color
   1. Caused by the absorption of wavelengths of light by the mineral and their combination of wavelengths reaching the eye.

1. Define: Cleavage
   1. The ability of a mineral to break along preferred planes.
2. Define: Streak
   1. The color of the powder left on a streak plate when the mineral is scraped across it.

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**Fun Fact:** The mineral pictured above is Obsidian!

* Its name comes from the name of a man, Obsius, who was supposed to have found this rock in Ethiopia thousands of years ago. Obsidian is ancient volcanic glass and was once widely used for arrowheads.