## Identifying Minerals: Streak Test

**<u>Problem/Question</u>**: Can the identity of minerals be inferred using the properties of color, luster, streak, hardness, and cleavage/fracture?

## **DIRECTIONS FOR THE STREAK TEST**

**1.** Your team will work together to identify the mineral at your station using its properties. Begin by carefully observing the "class sample".

2. Record information for its color, luster, and breakage pattern.

**3.** Carefully wipe the streak plate with a paper towel and **boldly** swipe the mineral across the tile. Examine the streak and record the color of the powder. (Be specific! Is the streak brown or *reddish*-brown? Black or dark gray?) If there does not appear to be a streak left by the mineral, wipe your finger over the tile and see if any powder comes off on your finger. If some does, what was the color?

4. Use the "MINERAL KEY" to identify the mineral. <u>Be sure to start your identification using the color</u> of the streak!

**5.** After verifying the identity of the "class sample", repeat the process for the other sample at your station.

**6.** As you work, compare your conclusion about the mineral's identity with your teammates. If you disagree about the identity, go back and reevaluate the mineral until you reach agreement.

7. Return the mineral samples to the paper plate. Wipe off the streak plates with a damp paper towel.

8. When told to do so, rotate to the next station and repeat the procedure to identify the mineral.

STREAK TEST						
Sample #	Record your observations of the sample:					
	Color Of Mineral	Luster (shiny, dull, earthy, glassy, metallic, etc.)	Cleavage or Fracture?	Streak Color	Mineral Name	
Class Sample						
1						
2						
3						
4						
5						
6						
7						
8						

**IMPORTANT:** Handle all mineral samples carefully. If a mineral is soft or fragile, do not perform repeated tests. Do not break samples into smaller pieces.

Identifying Minerals: Streak Test Reflection Questions:
1. Describe the <b>process</b> that you used to <i>infer</i> the identity of the minerals at your station:
2. Which was the most helpful to finding the identity? Explain your choice.
<b>3.</b> Which mineral property was the most difficult to use or the least helpful? Explain your choice:
<b>4.</b> On the 0-4 scale, how would you rate your ability to correctly infer the identities of the samples? <b>Explain using data</b> .
5. If you were going to repeat this activity, how would you improve your performance?