



# MINERALS

## Activity #5 – Streak Test

**Recommendations: For Grades 3-6. Can be done inside or outside (outside would be better because this activity could create a mess). Adult supervision is recommended.**

**Purpose:** Determine the color of a mineral in powdered form, this can help you to identify the mineral.

### Materials:

- 5 different mineral samples
- White piece of unglazed porcelain (*streak plate*). If you do not have streak plates you can use other things made of porcelain (ie. Plates, bathtub, vases etc.)
- Black streak plate. If you do not have a black streak plate that is okay, the white one will be fine.

### How it Works:

*Context: The streak test is done by scraping an edge of the mineral across a piece of unglazed porcelain known as a "streak plate." This can produce a small amount of powdered mineral on the surface of the plate. The color of the streak can help to identify the unknown mineral. For example: iron pyrite (fool's gold) has a black streak and real gold will have a gold streak.*



**Step 1:** Copy out the chart below

Sample:	Color of streak:	What mineral is it:
1		
2		
3		
4		
5		

**Step 2:** Using the streak plate or a piece of porcelain, scratch each mineral one at a time and record the color they leave behind. (*some minerals will be harder to streak because of their hardness, so adjust pressure as needed*)

**Step 3:** Now that you have the color of streak left behind from each sample, do some research to see if you can figure out what mineral each sample is.

### Conclusion:

Only minerals with a hardness less than 7 will leave a streak. The reason for this is because the streak plate (*porcelain tile*) only has a hardness (*Mohs scale*) of 7, which means anything with a hardness greater than 7 will “scratch” the streak plate rather than leave a “streak”.

Lots of minerals can come in different colors but even though they are different colors they will still have the same colored streak. For example: Calcite is usually a whitish color but it can be gray, yellow, pink, brown, green, black, or blue but no matter the color the streak will always be white.

Did any of the minerals not leave a streak? Why did this happen?

**Also,** now that you have found out the color of streak for each of your samples, **try out the other 3 activities** to see if you can identify the type of minerals you have. The other activities are:

- Minerals 2 - Hardness
- Minerals 3 - Luster
- Minerals 4 - Breakage

### Resources:

**Check out this YouTube video!**

<https://www.youtube.com/watch?v=KaUPm-PkaV8>