



Properties of Coal



Essential Question: What are the major categories of coal, and what are the most observable properties of each?

Overview

In this activity, you will begin to explore coal. Coal is the energy source that is most commonly used in the U.S. to generate electricity.

Materials

For each group:

- samples of four different types of coal: anthracite, bituminous, lignite, and peat
- electronic balance
- streak plate
- magnifying glass
- 100-mL graduated cylinder
- access to water

Safety Concerns

Follow standard safety rules and school safety rules for laboratory activities.

Procedure

You will test the following five properties for each sample of coal: color, luster, texture, hardness, and density. Construct a data table to record your observations.

Read the descriptions below for each property test before creating a data table.

Color

1. Using the magnifying glass, carefully observe the appearance of each coal sample. Be sure to describe any color patterns or variations that exist.

Luster

2. Luster refers to the shininess of an object. Using the magnifying glass, carefully observe the appearance of each coal sample. Record whether or not it shines.