



Materials Needed

For this investigation your group will need:

- hard-boiled egg
- tools, including: toothpicks, plastic knife, tongue depressor
- filter paper
- paper towels
- cereal samples in sealed plastic bags
- crushed sulfide ore
- steel shot
- small plastic jar with tight-fitting lid
- terrycloth towel
- fine mesh screen or kitchen sieve
- clear plastic cup (8 oz. size)
- liquid bubble bath
- bicycle pump (or other air pump) with connector
- file card
- balance
- ruler
- calculator

You will also require materials to extract iron from the cereal. Consult with your teacher about what other materials are available.



Wear safety goggles throughout this investigation.

Investigation 6:

Extracting Minerals

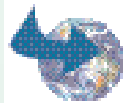


Key Question

Before you begin, first think about this key question.

How are minerals mined and removed from the ground?

You have modeled the process of looking for minerals. What happens when minerals are found? Share your thoughts with your classmates. Be sure to include a record of the discussion in your journal.



Investigate

Part A: Modeling the Mining Process

1. You will use a hard-boiled egg and some “mining tools” (toothpicks, filter paper, etc.) as the starting point to construct a model. You will need to think of how you can use the egg to model the mineral mining process.

To do this you will need to consider all of the concerns that are important to a mining