

Separating Mechanical Mixtures

There are different ways to separate the parts of a mechanical mixture. In this activity, you will explore some of these methods.

SKILLS MENU

- | | |
|--|---|
| <input type="checkbox"/> Questioning | <input checked="" type="checkbox"/> Performing |
| <input type="checkbox"/> Hypothesizing | <input checked="" type="checkbox"/> Observing |
| <input type="checkbox"/> Predicting | <input checked="" type="checkbox"/> Analyzing |
| <input type="checkbox"/> Planning | <input checked="" type="checkbox"/> Evaluating |
| <input type="checkbox"/> Controlling Variables | <input checked="" type="checkbox"/> Communicating |

Purpose

To separate mechanical mixtures using different methods.

Equipment and Materials

- apron
- eye protection
- spoon
- 2 beakers
- 3 watch glasses
- magnet and paper
- sieve
- funnel
- plastic container
- wash bottle containing water
- three mystery mixtures
- paper towels
- coffee filter



apron



eye protection



spoon



2 beakers



3 watch glasses



magnet and paper



sieve



funnel



plastic container



wash bottle containing water



3 mystery mixtures



paper towels



coffee filter

Procedure

Part A: Floating and Settling

- Put on your apron and eye protection. Use the spoon to stir mixture #1. After stirring, examine the mixture and record your observations.
- Let the mixture sit for 15 min. (You can work on Parts B and C while you wait.)
- Examine the mixture. What parts floated to the top? What parts settled to the bottom? Record your observations.
- Use the spoon to skim off the floating parts of the mixture (Figure 1). Put them onto a watch glass.



Figure 1 Separating the parts of mixture #1 by floating

- Pour the liquid part of the mixture into an empty beaker, leaving the settled solids behind.