

Convection

Students can perform this experiment in groups or individually depending on supplies.

Time: 60 minutes

Experiment Instructions:

1. Prior to starting the experiment, write the materials list and procedures in your notebook.
2. Predict the results:
 - What will happen to the jar with warm water?
 - What will happen to the jar with cold water?
4. Perform the experiment.
5. Record the results of the experiment in your notebook.

Materials:

Two juice glasses that will fit into a quart jar or similar setup

Two quart jars

Food coloring

Half-gallon of warm water in an easy-to-pour container

Quart of cold water in an easy-to-pour container

Two small squares of tin foil

Sharpened pencil

Device for stirring water

Procedure:

1. Prepare an easy to clean, clutter-free space to work in.
2. Fill both juice glasses three-fourths full of warm water. Put drops of food coloring in until the water is a deep shade of the color chosen. (*Different types of food coloring act differently. The best is Easter egg coloring tablets, using a half a tablet per glass. These tablets are also the best at staining a work surface.*)
3. Stir well.
4. Carefully fill the juice glasses to the rim with warm water.
5. Place the tin foil tightly around the rim of the juice glasses. Make a tight seal that will not spill.
6. Set each juice glass into its own quart jar.
7. Fill one quart jar with warm water.
8. Fill the other quart jar with cold water.
9. Use a pencil to poke three holes in each jar's tin foil. The foil may need to be gently pushed down if the food coloring jar is not full enough.
10. Observe and record your results.