

Convection Currents

6th - 8th
Grade

Materials

- Clear container
- Small cup
- Blue and red food coloring
- Ice cube tray

Students will gain a better understanding of how Convection Currents work.

Directions

Prepare ahead of time:

- Put 2 drops of blue food dye in an ice cube well, add water and freeze.
- Fill clear container with water and allow it to reach room temperature.

Experiment

- Fill the small cup with about $\frac{1}{4}$ cup hot water and a few drops of red food dye.
- Slowly and carefully, add the hot, red water down one side of the clear container filled with water. You don't want it to mix in with the water.
- Place the blue ice cube on the other side of the clear, water filled container.
- Observe for the next 5-10 minutes.

Convection

Circular motion caused by the warmer, less dense substances (liquids and gasses) rising, while cooler, more dense substances fall.

The cold, blue water should fall to the bottom, while the red, hot water should stay at the top. As the hot water cools, it will start to fall, and as the cold water warms up, it will begin to rise.

Convection Current

