

# Heat Currents Illustrated

## **Action**

The heat currents from a candle will be seen when drops of food colouring in oil begin to move.

## **Grade Level**

Grade 5 - Convection

## **Materials**

- Heat proof glass dish
- Eye dropper
- Candle
- Wooden blocks
- Food colouring
- Cooking oil
- Matches

## **Instructions**

- Place the wooden blocks on either side of the candle and light the candle.
- Fill the glass dish approximately half full with cooking oil.
- Use the eyedropper to place several drops of food colouring at the bottom of the dish.

## **Safety**

Be careful when using the candle. The oil may splatter so stand back. You may also wish to use safety glasses.

## **Science Principle**

Warm currents begin to circulate the oil. The food colouring moves with the heat currents and rises to the surface. As the food colouring sits on the surface, it cools and falls back down to the bottom. The same principle can be applied to air. When you put a heater in a room the warm air currents circulate upwards heating the room through a process called convection.