

# Convection in a Pan

Name: \_\_\_\_\_ Date: \_\_\_\_\_

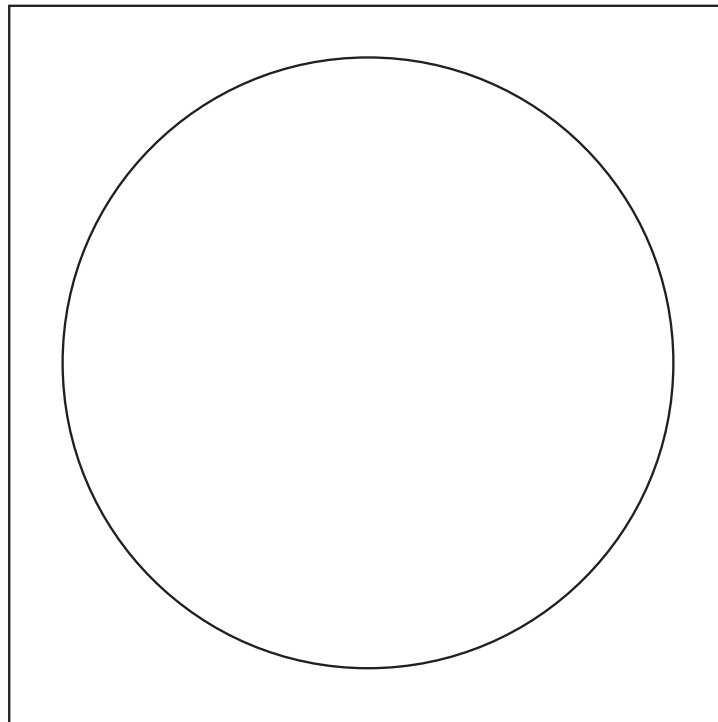
After you light the heat source under the water bath in front of you, wait three to five minutes and carefully observe the surface of the soapy water. If you are using a Bunsen burner as your heat source, then, owing to the extra heat generated, things will start happening quicker than if you are using a candle.

With your group, try these things to help you figure out what is happening:

1. Add one drop of food colouring to the centre of the liquid, directly above the candle flame
2. Add one drop of food colouring of a different colour to the liquid between the centre and the rim of the pan.
3. Add one drop of food colouring of a different colour to the edge of the liquid, near the rim of the pan.

When you think you know how the liquid is moving, use arrows to show the direction of motion of the liquid from these two different views:

What do you see looking down onto the surface of the liquid?



What do you see as you look through the side of the water bath (or draw what you would expect to see if you are using a water bath without clear sides)

Side of water bath      Surface of liquid

