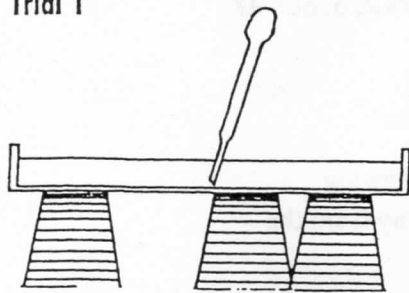


# Convection

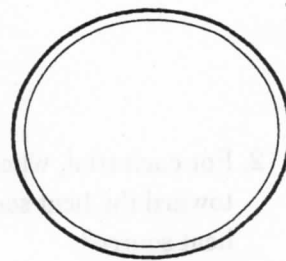
Name: \_\_\_\_\_  
Period: \_\_\_\_\_ Date: \_\_\_\_\_

## DATA SHEET

Trial 1



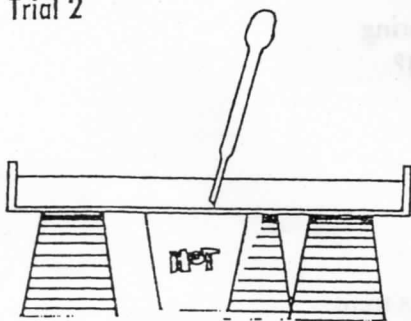
Side View



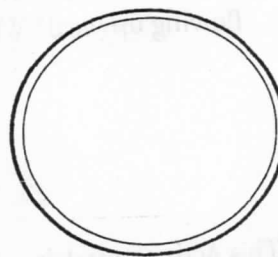
Top View

Description: \_\_\_\_\_  
\_\_\_\_\_

Trial 2



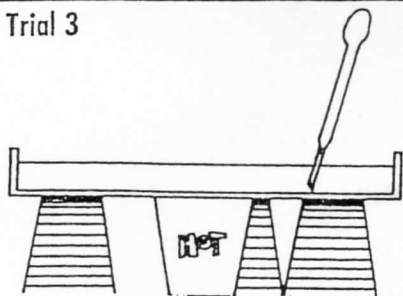
Side View



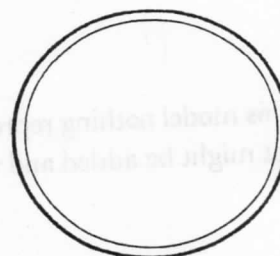
Top View

Description: \_\_\_\_\_  
\_\_\_\_\_

Trial 3



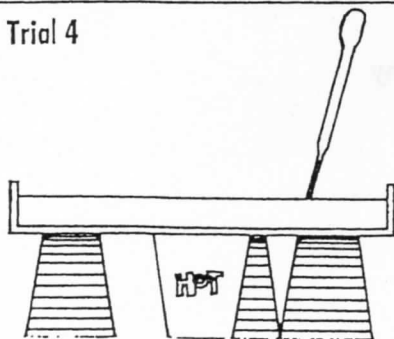
Side View



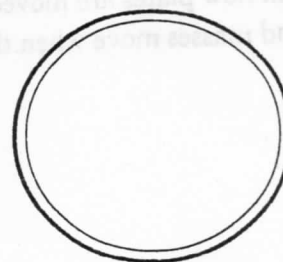
Top View

Description: \_\_\_\_\_  
\_\_\_\_\_

Trial 4



Side View



Top View

Description: \_\_\_\_\_  
\_\_\_\_\_

## Questions/Conclusions

1. Review the results of the four trials within your group.  
Contrast the different outcomes to the control experiment.  
What effect does the heat source have on Trials 2, 3, and 4?

2. For each trial, where in the pan was the current flowing toward the heat source? Where was it flowing away from the heat source?

3. For each trial, where in the pan was the food coloring flowing upward? Where was it flowing downward?

4. This Activity models one of the mechanisms geologists think might drive plate tectonics. In this model, what does the water represent? What does the hot water in the cup represent?

5. In this model nothing represents the plates. To include them, what might be added and where should they be placed?

6. If this model accurately represents a portion of Earth, explain how plates are moved about on Earth's surface. Why do land masses move when their underlying plates move?

7. The currents in the water cause the food coloring to move at a rate of two to three centimeters or more per minute. Investigate comparisons between this rate and the rate estimated for tectonic plate motion.