

Convection Currents Lab

Convection is the movement of heat in a liquid or a gas. Convection is a process that we talk about a lot in Earth Science. Convection within the mantle of the Earth is responsible for the movement of tectonic plates. Convection also takes place in our atmosphere and is responsible for cloud formation and weather patterns. Convection can even be found in our oceans and lakes. In this lab you will be predicting, observing, and documenting convection currents.

You will need a clear plastic shoebox full of water, hot water (colored red), cold water (colored blue), and an iPad. You will be pouring the hot water into one end of the shoebox and cold water into the other and documenting what happens.

Hypothesis - Predict what will happen when you pour the water into the shoebox.

Observations - Make at least 5 observations about what you are seeing happen during this experiment.

- 1.
- 2.
- 3.
- 4.
- 5.

Conclusion - Write a conclusion that summarizes and explains the observations you made during the experiment.

Explain - How does this experiment relate to the theory of plate tectonics? In your explanation draw a picture of the lithosphere and mantle at a mid-ocean ridge.

After you complete this worksheet you need to put the information contained in this worksheet into an education and include your pictures. This will be your lab report. In your education you need to explain what you did (step by step), what happened (with pictures), and why we did this experiment.