

Plate Tectonics Convection Lab

Summary

Students will model and observe the process of convection as it moves Earth's crust.

Main Core Tie

Science - Earth Science

[Standard 2 Objective 1](#)

Additional Core Ties

Science - Earth Science

[Standard 2 Objective 3](#)

Time Frame

1 class periods of 60 minutes each

Group Size

Small Groups

Materials

Per group:

1 clear plastic or glass pie pan

5 Styrofoam cups

pipettes

food coloring

water

paper towels

heat source

sawdust

- [student worksheet](#)
(attached)

Instructional Procedures

Collect the materials including finding a source of hot water. Very hot tap water will work but is often unavailable.

Ask students if they have ever swum in a lake. Ask where the coldest water is and see if students know why. Ask students if their feet are ever cold indoors in the winter and why that might be.

Read the introduction and directions with the students and show them where materials are located.

Allow time for students to work in groups to complete the tasks.

Ask a representative from different groups to come to the board and draw their results on the different tests. Discuss what happened on each and why.

Allow time for students to finish the analysis questions.

Assessment Plan

Scoring Guide

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1. Students set up and test their apparatus.4
2. Students record data accurately4
3. Students participate in post lab discussion.4
4. Analysis questions are correctly answered .4
5. Conclusion thoughtfully written..4

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

Authors

[Utah LessonPlans](#)