

Modeling Earth's Mantle

Summary

In this lab students make a fluid that models Earth's mantle made of rocks that are solid yet can flow like a liquid.

Main Core Tie

Science - Earth Science

[Standard 2 Objective 1](#)

Time Frame

1 class periods of 60 minutes each

Group Size

Pairs

Materials

- 4 Tablespoons of cornstarch in a cup
- 20 ml water
- 3 drops food coloring
- plastic fork
- ice cubes in a Styrofoam cup
- hot water in Styrofoam cups
- [student worksheet](#)
(attached)

Instructional Procedures

All of these procedures are repeated on the student worksheet.

Start by measuring 20 ml of water into a graduated cylinder. Add three drops of the color of your choice to the water. You must add the food coloring; it adds both extra water as well as fabulously awesome color to your mantle magma. Return food coloring to lab prep table.

Pour the water and color mixture on top of the cornstarch and mix thoroughly with a fork. If you had the right amount of water it will be tough to stir. Call your teacher over to check your mixture before proceeding with the testing.

Answer the questions below.

Waste disposal- rinse out cup, in sink, with lots of running water and return cup to lab prep area.

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

Authors

[Utah LessonPlans](#)