

Scale Model of Earth

Summary

Students will draw a scale model of Earth.

Time Frame

2 class periods of 45 minutes each

Group Size

Small Groups

Materials

- 1.5 m x 1.5 m piece of butcher paper (butcher paper is about 1 meter wide. You will need to cut a piece in half and glue to another to get these dimensions) [illustration](#)
- 1 meter of string
- metric rulers
- markers
- [student sheet](#)
(see below)

Background for Teachers

Earth is a remarkably round, smooth object when viewed from space. It is important that students understand that from their view of Earth, it is bumpy but from space, it is quite smooth. A picture of Earth taken from space is helpful to have to point this out to them. Make sure students understand that the layers of Earth are NOT visible from space. You might also discuss the reasons scientists use models (for things too small, too large, too dangerous or that occurred in the past) to study and test. Remind them that no one has ever drilled into Earth past the Core although it has been attempted. Temperatures, pressures and difficulty with the drilling process currently make it very difficult to drill very far into Earth.

Instructional Procedures

- Discuss the introduction on the lab sheet.
- Describe where materials are located.
- Demonstrate how a pencil and string can be used for a compass. [\(see illustration attached\)](#)
- Emphasis that the layers of Earth are additive. Each level of thickness must be measured from the previous one, NOT from the center each time.
- If you would like students to do some research, do not give them the information on the 3rd table on the student sheet. This information is probably available in their books or the Internet if you have computers.
- Students can display their work on the walls of your room and you can quickly discuss the merits of each or have student groups report.

Assessment Plan

Scoring guide

:

1. Student works and participates in group.....4
2. Group produces reasonably accurate model.....4

- 3. Model is correctly labeled.....4
- 4. Student correctly records data and answers analysis questions.....4
- 5. Student writes thoughtful and thorough conclusion.....4

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

Authors

[Utah LessonPlans](#)