

Density Lab of Earth Materials

Summary

Students will design an experiment to measure the density of 6 Earth Materials. They will also predict how these materials would sort.

Time Frame

2 class periods of 45 minutes each

Group Size

Small Groups

Materials

- paper clips
- sand
- pebbles
- potting soil
- water
- marbles
- water
- triple beam balance
- beakers
- graduated cylinders
- overflow cans
- calculators
- 2 liter bottle
- large funnel
- [lab worksheet](#)

Student Prior Knowledge

mass, volume, density

Instructional Procedures

Students must come up with a plan that the teacher will check off for measuring the density of each of the 6 Earth materials. Make sure that they include exact amounts. Do not let them use more than 30 mL of each material.

Students will measure the density of each material.

After measuring each material the students will dump that material into the 2 liter bottle.

EXCEPT the marbles. The teacher may put some in to represent the marbles.

Have the students check their math. Do the densities make sense. Students have a tendency to believe the number on the calculator and not check the numbers.

After all the groups have completed the teacher will add enough water to the 2 liter bottle to fill it up. Shake the bottle and let the materials sort.

Discuss the layering. Talk about the density of each

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

Authors

[Utah LessonPlans](#)