Matching by Density

Summary

The student will calculate the density of a given object and place it in the right layer of the Earth by matching its density to a known quantity.

Main Core Tie

SEEd - Grade 7
Strand 7.2: CHANGES TO EARTH OVER TIME Standard 7.2.4

Time Frame

1 class periods of 60 minutes each

Group Size

Small Groups

Materials

    substances to measure such as rocks, including high a low density rocks
    water
    lightweight materials such as Styrofoam or a balloon to model air (roughly)
    tools to calculate mass and volume
  - student sheet

Instructional Procedures

    The student will be given a small object and the materials needed to calculate its density. After finding the mass and volume, the student will calculate density using d=m/v.
    Once the density is known the student will use that data and the Earth density chart to determine which layer of the Earth has the closest density to the object.
    Have students put the density they calculated for each substance on the board and make sure that they are reasonably accurate.

Assessment Plan

Scoring

-- There are 4 parts to be evaluated.

First -- did the student find the right mass?
Second -- did the student find the correct volume?
Third -- did the student calculated density correctly?
Fourth -- did the student correctly interpret the chart and choose the correct layer of the Earth?

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

Authors

Utah LessonPlans