

Water Sorting Performance Test

Summary

Students will time how fast different sediments settle. Students will compare sediments with pictures of landscapes and how density effects layering of soil.

Main Core Tie

SEEd - Grade 7

[Strand 7.2: CHANGES TO EARTH OVER TIME Standard 7.2.2](#)

Time Frame

1 class periods of 45 minutes each

Group Size

Small Groups

Materials

- five jars(large mason jar)
- four small jars (baby food jars work well)
- 4 sediments: clay, silt, sand, topsoil, coarse sand, gravel, pebbles (the sediments just need to be different sizes, it doesn't matter exactly which ones are used. If you can find sediments with different colors such as red desert sand or volcanic sands, these are easier to see)
- Have several pictures of different landscapes for each group. Pictures can be found in *National Geographic* or students could be assigned homework or extra credit to bring them in. Pictures should be numbered and laminated.
- stopwatch or clock with second hand
- [student response sheet](#)

Background for Teachers

Notes to teacher:

- Clay will take 50 minutes to settle if left undisturbed. You may have to show them it the next day.
- Pictures can include deltas, road cuts, canyon walls, beaches, sand dunes etc.

Student Prior Knowledge

Students should have discussed and experimented with density. They should be able to identify pictures of beaches, stream beds, road cuts and different sediments such as, clay, gravel or sand.

Instructional Procedures

- You can prepare sediments in jars by adding several tablespoons of sediment to the small jars and then filling with water. You can do this beforehand or have the first period that uses them do it. The large jar should have 4 sediments and water in it.
- The jars need to be clearly labeled with a water-resistant marker as to what sediment is in them.
- Students will need to work in groups. Pictures can be handed around from group to group.

Assessment Plan

Scoring Guide

:

21 points total:

1. Hypothesis correctly written, 2 pts
2. Data.....13 pts
3. Analysis 4 pts
5. Conclusion written (restated hypothesis)..... 2 pts

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

Authors

[Utah LessonPlans](#)