

Inquiry Labs on the Properties of Water

Summary

Students will create 2 simple labs to investigate either cohesion, adhesion, capillary action, dissolving properties or heat capacity. They will also learn about independent and dependent variables.

Time Frame

2 class periods of 60 minutes each

Group Size

Small Groups

Materials

- [student sheet, lab 1](#)

(attached)

- [student sheet, lab 2](#)

(attached)

soap

pennies

pipettes

petrie dishes

alcohol

water

capillary tubes

pepper corns

needles

food coloring

filter paper

overhead markers

alcohol burners

beakers

spoons

vinegar

oil

any other supplies you can think of that may help them design their experiments

Student Prior Knowledge

Students should have a basic understanding of the properties of water.

Instructional Procedures

Pass out student sheet

Have students design their first experiment (title through procedures)

Groups should write their hypothesis on the overhead so that no experiments overlap

Note: these labs do not need to be complicated, I stress to them the importance of the scientific method, repeating experiments enough times, choosing one variable. . .etc

Allow students to complete first lab

Repeat the same steps for the second lab the next day.

Assessment Plan

Scoring Guide:

- Students included all factors.....10 pts
- Students listed populations.....15 pts
- Paragraphs are well thought out and complete.....20 pts
- Picture of ecosystem is neat and colorful.....10 pts
- Student participated.....10 pts

Bibliography

Lesson Design by Jordan School District Teachers and Staff.

Authors

[Utah LessonPlans](#)