

# Do Different Liquids Have Different Densities?

## Summary

This is an inquiry lab. The students will design a lab to show the different liquids have different densities.

## Time Frame

1 class periods of 60 minutes each

## Group Size

Small Groups

## Materials

four different liquids with different densities that are different colors (alcohol, water, sugar water, salt water) If you use alcohol, have goggles  
triple beams balances  
graduated cylinders  
small potato chunks  
micro pipettes  
50 mL Beakers  
calculators  
small test tubes  
test tube rack  
- [Worksheet](#)

## Background for Teachers

The students need to know how to make basic measurement. There are many ways to compare the density of the liquids. Students may layer the liquids in the test tube. Students may actually measure the densities with mass/volume. Students may put potato pieces in the liquids. Students may put the same volume in beakers and measure only the mass.

## Instructional Procedures

Show the students two solids that they have already measured and restate that different solids have different densities. Then show the four different liquids and ask, "Do different liquids have different densities?"

Show the students all of the equipment that you have gathered. They may think of something that you do not have out. Tell them to ask you if it could be made available.

The students in teams of 2 or 3 should develop a plan to test this question. Accept all plans if you can see it heading in a good direction. Make sure that you check off their plan before they start.

The last ten minutes of class have discuss as a class how they tested this question. Make sure that you draw their attention to the idea that there are many ways to get the correct answer.

## Assessment Plan

1. Complete, best effort, used equipment correctly.....4
2. Complete, best effort, .....3
3. Partially complete and lacking effort.....2
4. Started lab and did not complete.....1

## Bibliography

Lesson Design by Jordan School District Teachers and Staff.

## Authors

[Utah LessonPlans](#)