

Density

Suggested Grades 4+

Objective Students will see the effects of density when a variety of liquids are poured on top of each other and when a variety of objects are dropped into each one.

- Materials**
- at least 7 small clear plastic cups
 - light corn syrup
 - lamp oil
 - milk
 - water
 - a piece of cork
 - a piece of a candle
 - a piece of metal
- *Each object should also be the same size as each other.

Method Do this activity as a demonstration or in class groups.

Part 1

- Pour liquids in each glass in the order shown below. Pour out a glass of each liquid combination, so you will have 3 filled glasses in total.

1)	2)	3)
corn syrup	milk	oil
milk	oil	corn syrup
oil	corn syrup	milk

- What happened? Draw your observations. Why did this happen? Organize the liquids from most to least dense. (You should be able to see layers clearly because each liquid has a different density. If the layers combine then the top layer has the heavier density than the one that it was poured on top of.)
- Try the experiment with other liquids.

Part 2

- Pour out a little of each liquid in separate glasses. Include a glass with a little water in it. So, you will have 4 glasses of liquids in total.
- Try dropping a piece of cork, into the middle of each liquid. In which liquids did it sink? In which liquids did it float? Record.
- Fish out the cork, or use a new piece that is equal in size and weight, and repeat the process with the pieces of candle and metal.
- Which objects floated the most? Which objects sank the most? Organize the objects for most to least dense.
- Try the experiment with other liquids.