
Safety:

- Instruments:**
- a large glass
 - a piece of Styrofoam
 - a metal nut (no bolt necessary)
 - a spoon
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- Chemicals:**
- blue-colored water
 - corn syrup
 - salad oil
 - a grape
 - a piece of marble
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- Experiment:**
- Fill the glass one-quarter full with corn syrup. This works best by turning a spoon upside-down over the glass to spread the syrup more evenly.
 - Slowly pour the same amount of salad oil into the glass, then the same amount of blue water.
 - The three liquids separate and form layers. Now place the different objects slowly and carefully into the glass and let them sink. What do you notice?
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Advice for the teacher:

Water is denser than salad oil, but less dense than corn syrup. The different objects reach different depths in the glass. They sink until they reach a layer of similar density, then stop there, not entering the next-densest layer.

The students should learn that two objects of the same size but different masses have different densities. Less mass = less density for equal volumes. This is true for all substances. When an object's density is less than the surrounding liquid, it floats.
