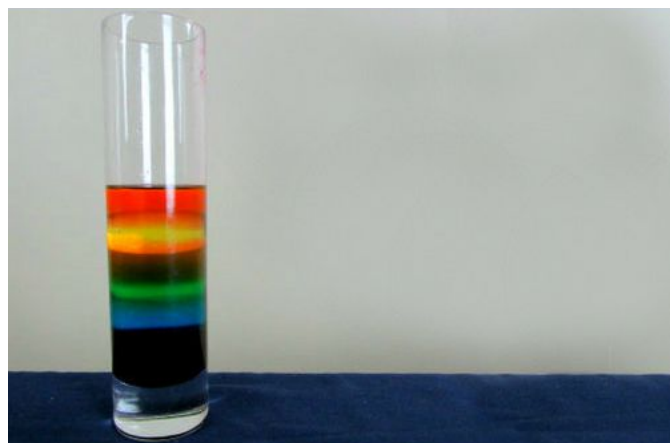




WHITMAN COLLEGE

Science at Home



Materials Needed:

- 1 tall glass jar
- red, blue, and green food dye
- $\frac{1}{4}$ cup honey
- $\frac{1}{4}$ cup blue dish soap
- $\frac{1}{4}$ cup water
- $\frac{1}{4}$ cup olive oil
- $\frac{1}{4}$ cup rubbing alcohol
- jar for mixing and pouring
- teaspoons for mixing

Rainbow in a Jar (Exploring Density)

1. mix drop of blue and red food dye with honey and stir until combined, add to tall jar
2. add blue dish soap to tall jar
3. add few drops of green food dye to water and mix, pour into tall jar
4. wait a few moments then pour olive oil into tall jar
5. add a few drops of red dye to rubbing alcohol stir to combine then add to tall jar

Pro Tip: tilt the jar and pour slowly!

Science Behind the Science You See

Density is a function of the mass of the liquid divided by its volume. Since we are putting equal volumes of each liquid into the tall jar the liquid with the greatest mass will be the most dense. When done correctly the less dense liquids will sit on top of the denser liquids creating a rainbow column!

Brought to you by Whitman College Science Outreach Team. Please visit our website for more fun activities to do at home.

<https://www.whitman.edu/academics/community-outreach/science-outreach>