

# RAINBOW JAR

learn about density

## MATERIALS

- Tall jar
- Honey
- Light corn syrup
- Dish soap (blue or green work best for this rainbow)
- Olive oil
- Rubbing alcohol
- Food coloring
- Water
- Dropper

## INSTRUCTIONS

1. First pour honey into the middle of your jar, being careful not to get it on the sides.
2. Mix purple (or red + blue) food coloring with the corn syrup. Then add the purple corn syrup on top on the honey, again directly pouring into the middle of the jar.
3. Next, add dish soap into the middle of the jar.
4. Mix blue food coloring with water. Add the blue water to the center of the jar.
5. Next, pour olive oil into the center of the jar. A thick layer of oil will help with the next layer.
6. Mix red food coloring with the rubbing alcohol.
7. Use the dropper to add the rubbing alcohol, but dropping it on the inside sides of the jar. You don't want to break the oil layer or your red might mix. This is why you carefully add your red layer with a dropper.

Admire your rainbow in a jar! Be careful not to shake it so that your layers stay intact!

\*Note: The thickness of each layer is up to you! Add as much of each layer as you want, but make sure you'll have enough room for all of them!



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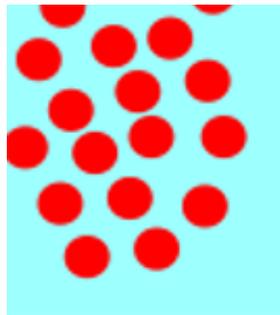
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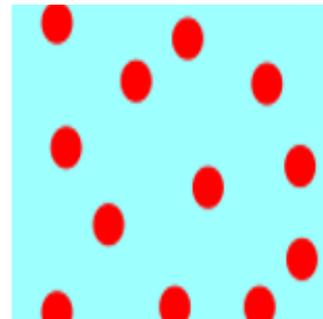
### WHAT IS DENSITY?

Density is a measurement for how much matter is in a certain amount of space. Everything in the world is made up of atoms, which are tiny building blocks of matter.

Something is more dense if it has more matter (or atoms) packed into a smaller space. Something is less dense if it is less packed together.



More  
dense



Less  
dense

Imagine you have two identical cups. They are exactly the same size. One has 5 marbles in it and one has 10 marbles in it. Which do you think is heavier? The more marbles there are in the same amount of space, the heavier it is!

This applies to our rainbow jar! The substances that are more dense stay at the bottom of the jar, while the substances that are less dense rise to and stay at the top!



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