

Materials

- Clear jar or glass
- Honey
- Dish soap
- Water
- Vegetable Oil

1 Observe each of the liquids on their own. Pay special attention to how thick they are and how they move. Do they move slowly or quickly? Do they like to stay in their starting shape or do they change shape easily?

2 In your clear container add a layer of honey; make sure it does not stick to the sides. Before you add the next layers ask what do you think is going to happen when you add the next liquid. Will they mix, will one go under the other or will the next liquid sit on top of the honey?

3 Slowly add a layer of dish soap then water then vegetable oil. Each layer should all be about the same size. Making sure that you let each layer settle before adding the next one. While waiting for the layer to settle you can repeat the questions you asked during the honey layer.



4 You should have distinct layers of liquid in your container. This is because each of the liquids have a different density. **Density** is the measure of mass per unit of volume or the relationship between how heavy a thing is and how much space it takes up. It is how tightly packed the stuff in an object is. Like something can be the same size but be heavier or lighter. Each of these liquids have a different density. Honey has the highest density and the vegetable oil has the least amount of density.

MOST*

Floating Egg

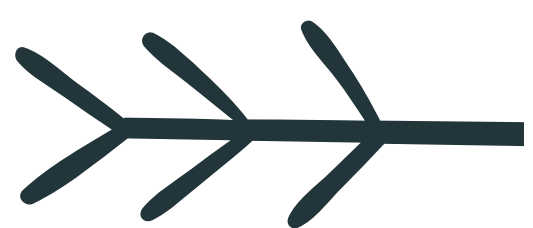
Materials

- Two eggs
- Two clear glasses
- Water
- Salt
- Liquid Measuring Cup
- Tablespoon

1 Put a 1 1/2 cup of water in each of the containers. Add 4 tablespoons of salt in one container and mix in the salt until it is all dissolved.

2 What do you think will happen to the eggs when you put them in the water? Why do you think that?

3 Gently put the egg in each of containers. What happens to the eggs? Are they doing the same thing? Why do you think the egg is floating? Why do you think one is floating and the other is not?



The Science Behind It



The egg is floating in the salt water because salt water is more dense than fresh water. **Density** is the measure of mass per unit of volume or the relationship between how heavy a thing is and how much space it takes up. It is how tightly packed the stuff in an object is. Basically, something can be the same size but be heavier or lighter. Since we added the salt to the water, we changed the density of the water enough to allow the egg to float.