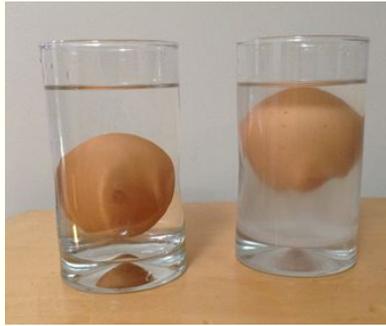


Egg in Salt Water Experiment

Credit to iGameMom



Supplies:

1. A glass that you can see through. To save water and salt, I suggest a glass that is not too big. As long as you can fit an egg into the glass, it should work.
2. Water. No special requirement, just tap water.
3. Salt. Again, just regular salt you use for cooking.
4. A raw egg.
5. A spoon. This is optional, only if you don't want to touch the salt.

Directions:

1. Fill the glass with water. Make sure it is not full. You want to have space for an egg too.
2. Add the raw egg into the glass gently.
3. Take note where the egg is. Is it at the bottom of glass? or the middle floating in the water? or above the water?
4. Add salt into the water. Gently stir the water to help the salt dissolve in the water. Keep adding salt into the glass till you start seeing the egg start to float in the water. For us, it started to float up when we added about 4 spoons of salt.
5. Record your observation.

Science explained: The density of saltwater is greater than freshwater. But why?

What is density? Density is the amount of matter contained in a given space or volume. When there's more amount of matter in a given space or volume, the object is considered more dense.

Why do objects float or sink? An easy answer is an object sinks when its own density is greater than the medium's density. In this egg salt water experiment, egg is the object, water and salt water are the medium. The egg is denser than freshwater, so it sinks in water without salt. By adding salt into the water, we increase the water's density. Once the salt water's density becomes greater than an egg's density, the egg starts to float.

Why is salt water denser than water? When salt is added and dissolved in water, it breaks down into ions that are attracted to the water molecules. This attraction causes them to bind, thus increasing the amount of matter per volume (density). Instead of just having hydrogen and oxygen molecules in the water, sodium and chlorine in salt are also in the medium. This is why salt water is more dense than tap water.