

Egg Float

Experiment:

To make a fresh egg float (they normally sink!)

Materials:

You will need:

- Two fresh raw eggs
- Table Salt
- Water
- Two jars or glasses



Method:

1. Fill each of your glasses with plain tap water.
2. Carefully place one of your eggs into a glass. If it is fresh, it should sink.
3. Dissolve about four tablespoons of table salt into the other glass. Unfortunately the water becomes quite cloudy. This is because of the additives added in the factory to make the salt pour!

Result:

The egg floated to the surface.

Why?

A raw egg will float in very salty water but will sink in plain tap water because salt water is more dense than ordinary water. Adding salt to the water squashes more molecules into the same space. This makes the water more dense. When there was no salt in the water, the egg was more dense than the water and it sank. When you add salt to the water it becomes denser than the egg and this makes the egg float.

Try weighing a cup of salt water and a cup of fresh water. What do you think you will discover? Yes, the salt water will weigh more than the fresh water even though it is taking up the same amount of space (a cup). This is because the salt water is more dense than the fresh water.

Now, try this!

Fill a glass half full with the salt water. Very slowly add plain water by pouring it down the sides of the glass being really careful not to mix the two liquids. Now, gently drop the egg into the water and watch as it sinks through the plain water only to abruptly stop when it hits the salt water.

It's amazing to see how the egg floats on the top layer of the salt water.

Some Salt Facts:

- In olden times, wars were fought over salt, and huge taxes were also levied on it. In some places, salt was in such high demand that it was minted into coins that were as valuable as gold and functioned as the basic currency for ancient civilizations.
- Where salt was scarce it was traded ounce for ounce with gold - because as the Roman statesman Cassiodorus observed, "Some seek not gold, but there lives not a man who does not need salt."
- Table salt is a chemical simple combination of two things, sodium and chlorine. Each of these are, on their own, potentially dangerous. Sodium will go on fire immediately if it comes into contact with water, and chlorine is poisonous if eaten. However, the two elements form sodium chloride, commonly known as salt. Salt is absolutely essential. Each of us contain from four to eight ounces of salt. In the body, salt is as important to humans as water or air. It helps maintain the normal volume of blood in the body and also helps keep the correct balance of water in and around the cells and tissues. Salt plays an important part in the digestion of food and is essential in making the heart beat correctly. When we don't get enough sodium chloride, we experience muscle cramps, dizziness, exhaustion and, in extreme cases, convulsions and death. Salt is essential to our well being.
- Salt cures aren't new. In the early 19th Century, sick people traveled to springs such as French Lick Springs in Indiana and Big Bone Lick, Kentucky, to soak in salt springs. Today's rather more luxurious spas offer salt baths, glows, rubs and polishes to get rid of dead skin, stimulate circulation and relieve stress.
- Salt pickles cucumbers, helps pack meat, can vegetables, cure leather, make glass, bread, butter, cheese, rubber and wood pulp. Salt has some 14,000 uses, more than any other mineral.