**THE FLOATING EGG**

Next:

*Materials and Explanations*

**EXPERIMENT**

Here's how you can make a floating egg. The measurements do not have to be exact but it's a good idea to list them proportionately for the first batch. Just eyeball the quantities of each ingredient to a near and intergrading both the first and final batches.

1. Mix the following ingredients:
   - 1 cup water
   - 1 tablespoon baking powder
   - 1 teaspoon table salt
   - 1 tablespoon cornstarch
   - 1 tablespoon vinegar

2. Pour the mixture into the glass, and place the egg gently on the surface. The egg will float on the water.

3. **SAFETY NOTE:**
   - Avoid inhaling the fumes of vinegar.
   - Keep the solution away from children and pets.

**HOW DOES IT WORK?**

The mixture of vinegar and baking powder creates a gas-like substance called a polymer, which forms a solid. The egg is floating on this polymer. The solution pH and temperature affect the rate of polymerization. A lower pH (higher acidity) can increase the rate of polymerization, while a higher pH (lower acidity) can slow it down. The egg is lighter than the polymer, so it floats on the surface of the solution.

Then:

*Step-by-Step Photo Sequence*
THE FLOATING EGG

Eggs sink in regular tap water, but creating a saltwater solution… that's an egg-citingly different story.

Materials
- Two drinking glasses
- Two raw eggs
- Table salt
- Spoon

EXPERIMENT
1. Fill one of the drinking glasses almost to the top with plain tap water.
2. Gently drop one of the eggs into the water-filled glass. It sinks right to the bottom!
3. Fill the second drinking glass half-full with water.
4. Add four tablespoons of table salt to the water, and stir.
5. Fill the rest of the cup with water, almost to the top.
6. Gently place the second egg into the salt water solution… it floats!
HOW DOES IT WORK?
All you did was add salt to your water. How in the world does the second egg float?
The first egg sinks to the bottom of the glass of regular tap water. This is because a raw egg has a greater density than regular tap water. Essentially, the egg has more matter stuffed into a specific area (volume) than the same amount of water. When you add salt to the water, you increase the density. That is to say, the salt packs into the same volume of water. With enough salt added to the water, the density of the water is greater than the egg, allowing the egg to float.
Here is what you need:

Salt
Water
2 glasses
2 raw eggs
1. Place one egg in a glass of water.
2. Add several tablespoons of salt to the other glass filled half way with water.

3. Very slowly fill the rest of the glass.

Mix it up.
4 Place the second raw egg into this glass.
COMPARE THE TWO GLASSES