

At Home Experiment – Saltwater Density



What you need:

- Two tall glasses (big enough to fit an egg)
- 2 eggs (either raw or boiled)
- Warm water
- Salt

Ask Some Questions Before You Begin:

1. Are you more likely to float in a pool or in the ocean?
2. Can you name some of the biggest mammals on Earth that can float in the ocean?

Experiment:

- Start by filling one glass about 2/3 of the way full with water.
- Ask the kids what will happen if you carefully drop an egg into the glass of water.
- Give it a try!
- In the other glass, fill to the same height with water.
- Now stir in 3 tablespoons of salt.
- Mix well to dissolve the salt!
- Ask the kids what they think will happen this time and demonstrate!

Information for Parents:

Adding salt to water makes the water denser. As the salt dissolves in the water, it adds mass (more weight to the water). This allows objects to float on the surface that would sink in fresh water. Salt in the ocean comes from rocks on land. Rainwater is slightly acidic due to carbonic acid (which forms from carbon dioxide and water). As the rain erodes the rock, acids in the rainwater break down the rock. This process creates ions or electrically charged atomic particles. These ions are carried away in runoff to streams and rivers and, ultimately, to the ocean.