

# Floating Egg

## **The Action**

In a bottle of half salt water and half regular water, an egg that is cracked into the bottle will float instead of just sinking to the bottom.

## **Grade Level**

Grade 8 - Solutions

Grade 9 - Fluids and Pressures

## **Materials**

- A 2 Litre plastic pop bottle with the neck cut off (or a similar container)
- Salt
- Water
- Sit stick or rod
- Eggs

## **Instructions**

- Fill a 2 Litre plastic pop bottle half full of water. Add a large amount of salt to create a supersaturated salt water solution. Stir to ensure the water is completely saturated.
- Fill the top half of the bottle with regular water taking great care so the regular water will sit on top of the salt water.
- Crack an egg (without breaking the yolk) and carefully release it into the solution in the bottle.

## **Safety**

No safety concerns

## **Hints**

- Make sure the supersaturated salt solution has enough salt in it to allow the egg to be suspended within the solution otherwise the egg will just sink to the bottom of the bottle.
- Run water over a wooden spoon on a slow stream to top off the top half of the bottle so the regular water will not mix as readily with the saturated salt water solution on the bottom half of the pop bottle.

## **Science Principle**

The egg will sit suspended in the water, just at the top of the salt water layer, instead of just sinking to the bottom. This is because the egg is denser than the regular water so it sinks through the top half of the bottle. When the egg reaches the supersaturated salt water solution, which is denser than the egg, the egg will remain on top of the salt water. Therefore, with the egg sitting at the bottom of the fresh water and the top of the salt water, it appears suspended.