



Template #1 What Are You Doing???

Date: _____

The purpose of this template is to help you get a good understanding as to what exactly you are doing with your science experiment.

Start with the **question** you are trying to answer.

For example:

What factors affect how quickly a solute dissolves in a solvent.

Now get more specific – what factors are you testing?

Temperature of water, size of particle of solute, and stirring.

Our Question:

Why do objects float better in salt water than in fresh water?

Translate this question into the **PURPOSE** of your experiment.

For example:

The purpose of this experiment is to determine how the temperature of the water, the size of the particle, and stirring the solvent affect the rate that a solute dissolves in a solvent.

Our Purpose:

The purpose of this experiment is to examine the effects different solutions have on the buoyancy of an object.

What do you think will happen in your experiment and **why** do you think that?

When developing a hypothesis for your experiment remember that you will need to research information and look at previous discoveries that are related to your question.

Translate this answer into your **HYPOTHESIS**.

Our Hypothesis:

I think that some solutions will affect how an object floats differently. The buoyancy of an object is determined by the buoyant force of a solution. By adding salt to water we are making it denser and increasing the buoyant force. So objects should float better in salt water.

What I Know	What I Wonder	What I Learned	Resource Source
Things float more easily in the Dead Sea.	Why?	The Dead Sea has a really high amount of salt in it. (8.6 X more salty than the ocean)	http://en.wikipedia.org
	What makes objects float?	- objects are pushed up by water - shape + weight affect buoyancy	www.newton.dep.anl.gov
		- thing with lower density than water will float ↳ that's <u>displaces</u> - upward force	
Buoyancy is about how well an object floats.	Who "discovered" this scientific idea?	- Archimedes 287 BC Sicily - "Eureka" crown	www.surfacekids.com/buoyancy.htm
	How do heavy steel ships float in ocean?	- the amount of water pushed aside (displaced) equals the weight of the object	www.spartansoftware.com/reeks
	Does sugar water act the same as salt water?	- like salt water sugar water weighs more than fresh water so it	www.shioth.org

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should have a greater upward force than fresh water
but is it the same as salt water?