

AQ26 - Arctic Activities

Salt Water Floating Experiments



Ships are able to float on water because of their hull. The hull sits below the water surface and is a large space of trapped air. It works in the same way as a rubber ring you wear when you go swimming.

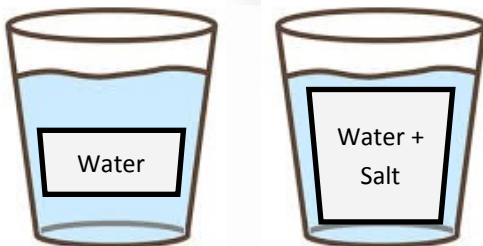
The big pocket of air in the hull means that overall the ship is dense than the water that it sits on. This makes the ship float on the water.

If an object is more dense than water, it will sink.

Things with low density take up a lot of space compared to how heavy they are. Fresh water and sea water have different densities. This is because sea water has other things mixed into it, such as salt.

Things that may sink in fresh water, may behave differently in salt water.

Testing things that float in fresh water and salt water

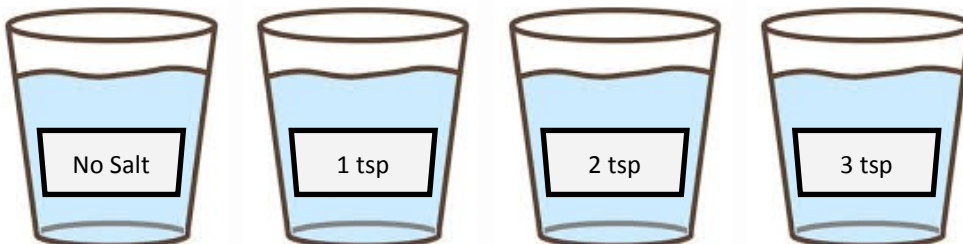


Fill two cup 3/4 full with warm water. Add 2 –3 teaspoons of salt to one of the cups.

Test different items to see if they float or sink in the two cups.

Try, boiled and un-boiled eggs, lemons or limes, Lego blocks, garden peas, plasticine or other non porous items.

Make it BIGGER - Freezing Salt Water



Dissolve different quantities of salt into separate cups of water. Place these in a freezer and check on them every hour. Predict which one will freeze first and last. You can also use a thermometer to record the temperature every hour. Do they all reach the same temperature before they freeze?