

Physical and Chemical Properties of Water

Physical Properties

States of Water



Solid (Ice)



Liquid (Water)

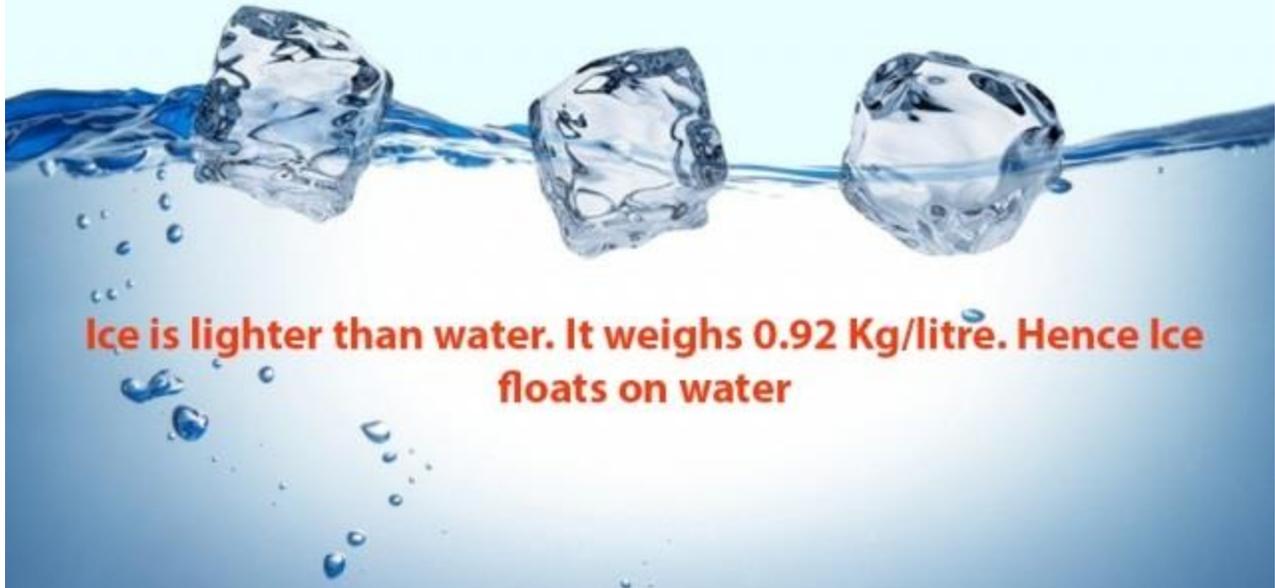


Gas (Steam)

Only Water exists in three states naturally

Density

1 litre of Water weighs 1 kg. Hence it's density is 1kg/litre



Ice is lighter than water. It weighs 0.92 Kg/litre. Hence Ice floats on water

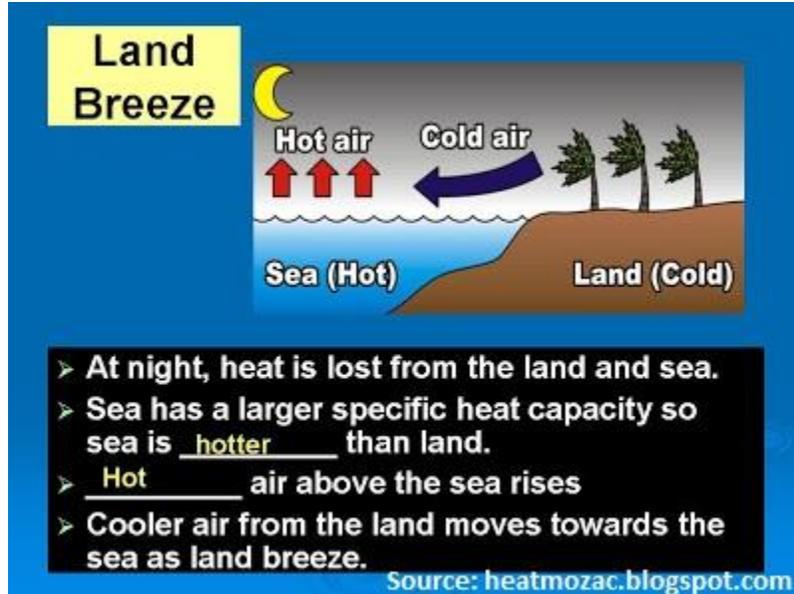
Specific Heat

Specific Heat Capacity of a substance is its capacity to store heat. Water has high specific heat capacity.



Source : Utah Electronic School

Due to high specific heat capacity, the coastal areas have moderate temperatures.



Surface Tension

Surface tension of a liquid denotes the force with which its molecules pull each other to minimize the surface area. Water has strong surface film strength (high surface tension).

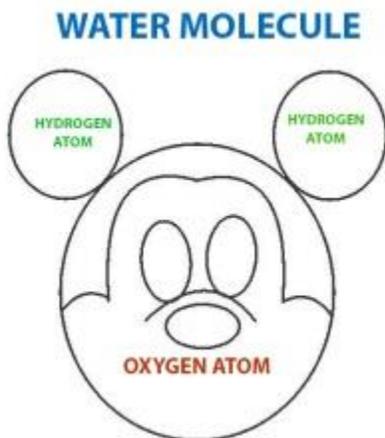


It's due to this that the small insects take advantage of surface tension to walk on water

Chemical Properties

The Water Molecule

Water is made up of two elements. Hydrogen and Oxygen. One water molecule consists of two hydrogen element and one Oxygen element arranged as shown in the figure.



Almost like mickey mouse!

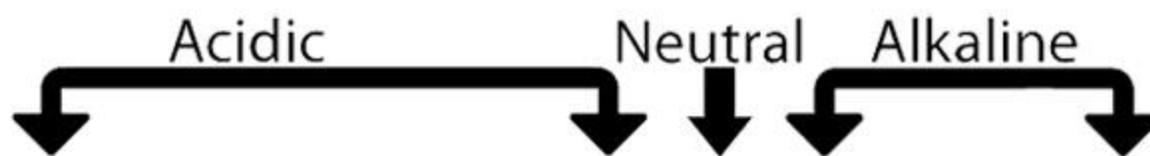
Water is universal solvent



**It can dissolve more
substance than any other
liquid but cannot dissolve
everything**

pH Neutral

Pure water has a neutral pH of 7, which means it is tasteless.



2	3	4	5	6	7	8	9	10
<p>pH 2.5</p> <p>pH 2.898</p> <p>pH 3.202</p>	<p>pH 3.289</p> <p>pH 3.22</p> <p>pH 2.7</p> <p>pH 3.31</p>	<p>pH 4.0</p> <p>pH 4.0</p> <p>pH 4.2</p>	<p>Reverse-Osmosis Distillation</p> <p>pH 5.0</p> <p>pH 5.0</p> <p>pH 5.4</p> <p>pH 5.9</p>	<p>pH 6.95</p> <p>pH 5.8</p>	<p>Tap Water</p> <p>pH 7.34</p> <p>pH 7.56</p>	<p>Alkaline Ionized Water</p> <p>pH 8.0-9.5</p>		

Source : www.carlagoldenwellness.com