Galileo Thermometer

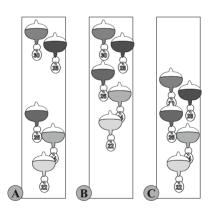
Galileo Galilei (1564 - 1642)

Italian astronomer, philosopher and physicist Galileo Galilei was the man who dared to challenge the 17th century beliefs about the structure of the universe, and whose theories paved the way for Newton's Theories of Motion.

On of his discoveries was that the density of liquid reduces as its temperature increases. This means that an object which just floats at one temperature will sink as the liquid it is in heats up, and rise again if it gets colder.

This principle is used in Nauticalia floating globe thermometers, dedicated to his memory.

How the Floating Globe Thermometer Works Individually-blown glass globes of minutely different weights are suspended in a glass tube filled with mineral oil. As the temperature of the surrounding area changes, globes become buoyant (or not), and rise or fall within the tube accordingly. Engraved brass tags attached to each globe indicate the temperature at which they are *just* buoyant - so current temperature is read from the lowest of those which float.



- A ~ The lowest floating globe indicates the current temperature
- $\mathbf{B} \sim \text{If all the globes float to the top, the temperature is below the lowest floating globe$
- C ~ If all the globes sink, the temperature is above the highest globe

Safety

This is not a toy. Keep away from children. In the event of breakage, if you touch the clear or coloured liquid (mineral oil), immediately wash skin with soap and running water. Use protective rubber gloves to clean the remaining glass and liquid.

