

The Galileo Thermometer

Based on an idea by Galileo Galilei (1564 -1642)

History

Searching for a way to measure exact temperatures, Galileo discovered this fascinating method. He placed several exactly weighted balls in a cylinder filled with a certain liquid. He found that the balls rose or fell according to the current temperature. By this method, he was able to determine the correct temperature.

How it Works

This thermometer works on the principle discovered by Galileo that the density of a liquid changes as temperature varies. Each of the glass balls is exactly weighted by partially filling the spheres with liquid. When the temperature rises, the liquid in the glass cylinder becomes less dense, and the heavier balls sink slowly to the bottom.

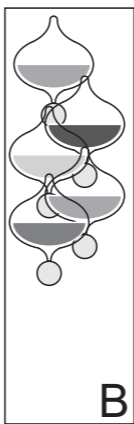
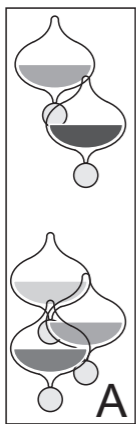
How to Read

Place the thermometer on a flat surface. The lowest temperature ball within the group at the top of the cylinder tells the correct temperature.

A. The lowest floating ball indicates the current temperature.

B. If all the balls float to the top, the temperature is below the lowest floating ball.

C. If all the balls sink, the temperature is above the highest ball.



Safety

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

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