

Dolphin can leap through the air and dive back into water smoothly and effortlessly.



Solid objects can move easily through liquids and gases. The particle theory states that fluid properties of water and air allow water particles and air particles to move out of the way solids.



You cannot push through a solid substance, like ice, since the particles are held strongly together and will not push aside.



How are Mass and Volume Related?

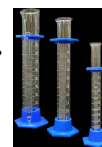
-To determine a substance density, you first must find out how much of the substance occupies a space.

Mass – The amount of matter in a substance
- Measured in kilograms (Kg) or grams (g)



Volume – The amount of space occupied by a substance

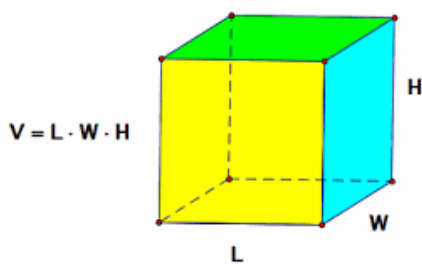
- Volume of liquids can be measured using measuring cups, graduated cylinders.



- Volume of gases can be determined by measuring volume of the containers that hold them

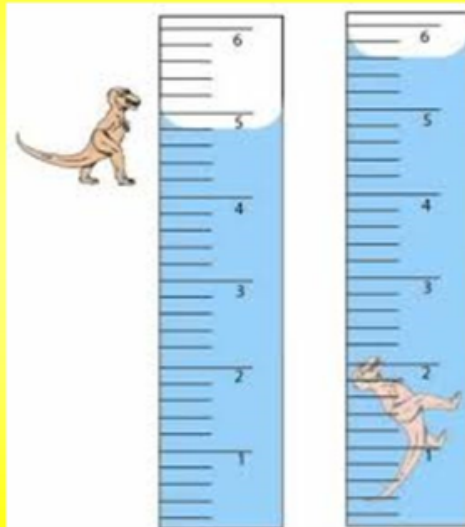
Capacity – The greatest amount of fluid that a container can hold. (Measured in Liters or millimeters)

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[Archimedes inventions : Golden crown in water bath - YouTube](#)

Measuring VOLUME by displacement



- Used to measure *irregular* or non-box shapes.
- When you can't measure length x height x width
- $5.6 - 4.8 = 0.8$ ml

Attachments

Archimedes story.docx

Chapter 5 Review Questions Pg 160.docx