

# Unit 3

## Matter

### Lesson 1

#### Physical Properties

# Physical property

**Anything that is special about a substance or object**

It can be observed, measured, or changed without changing the substance itself

Used to:

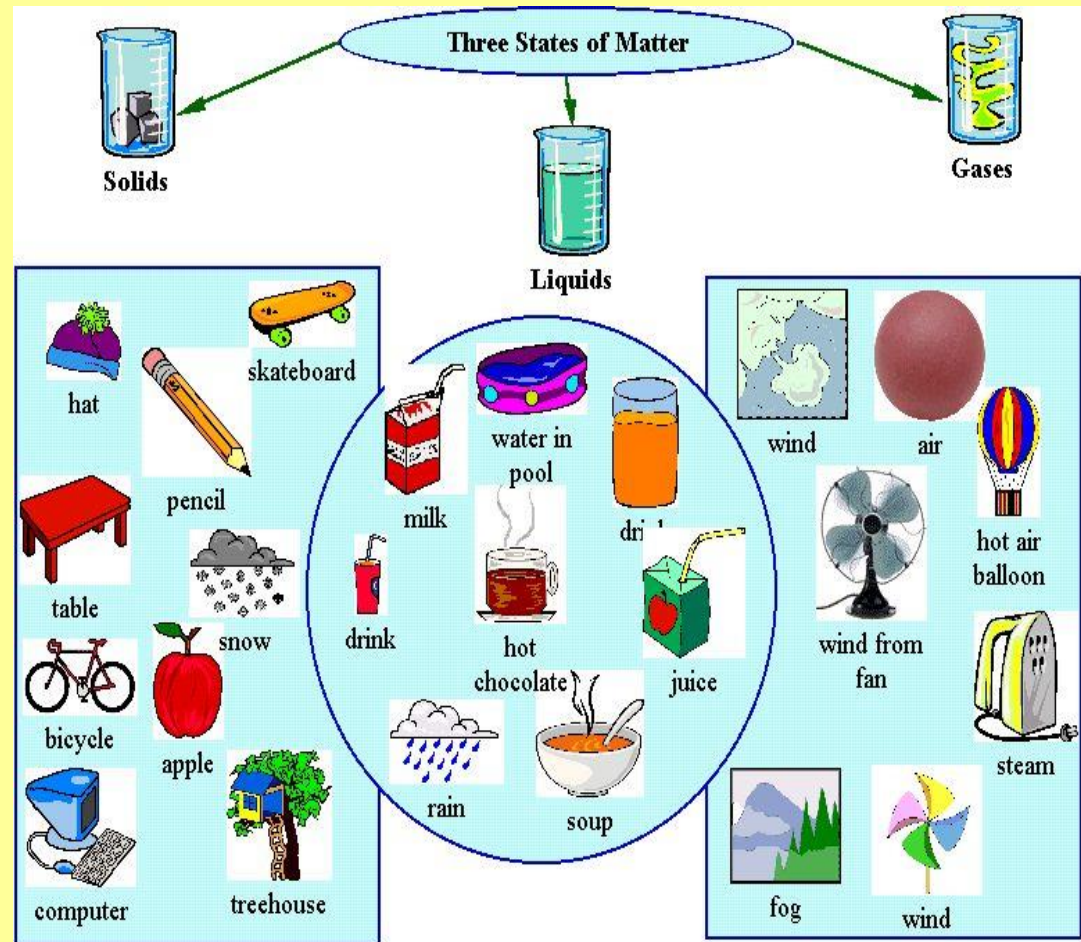
- describe (qualitative)
  - how it looks
  - how it feels
  - how it acts
- identify (quantitative)
  - How much



# Matter

Anything that has mass and takes up space(volume).

The material, or stuff, that everything is made of.

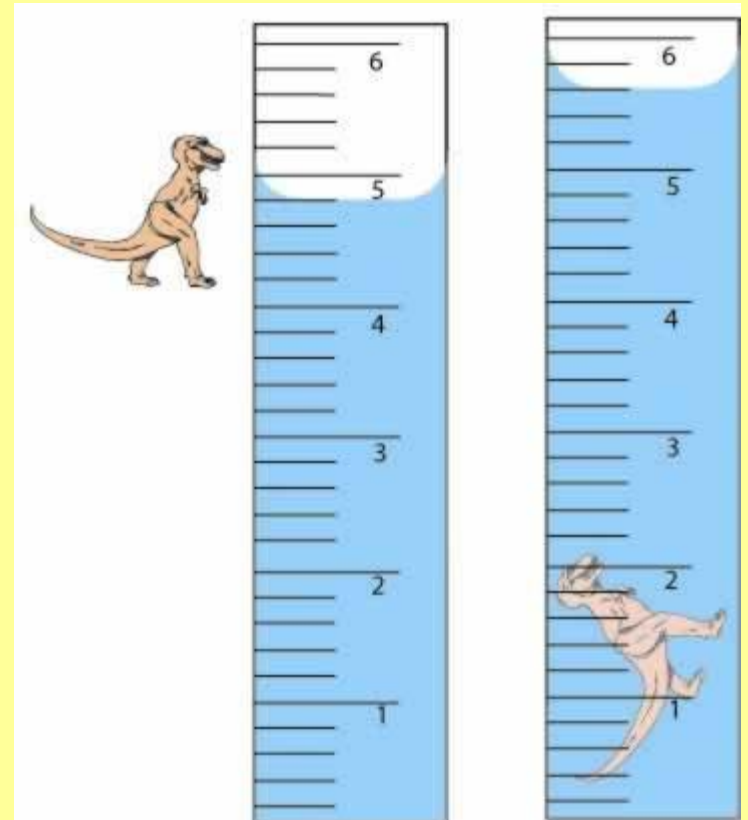


# Volume

Amount of space  
something takes up

Measured in mL

Tools: graduated  
cylinder or beaker



# Mass


The amount of matter in an object.

Measured in grams on a balance scale.

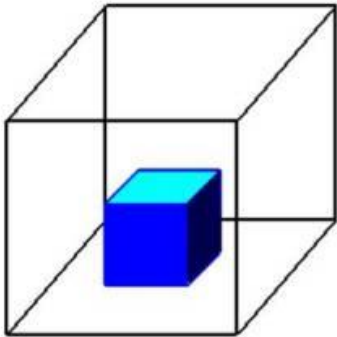
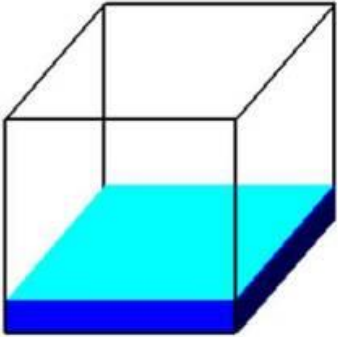
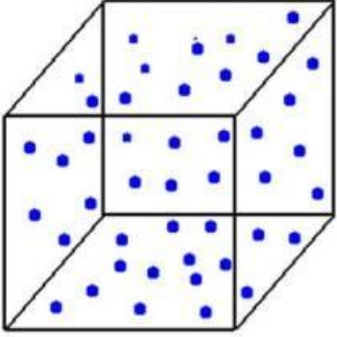


# Physical state\*\*

Phase or state matter is in: Solid,  
liquid, gas

 *Phases of Matter* Glenn  
Research  
Center

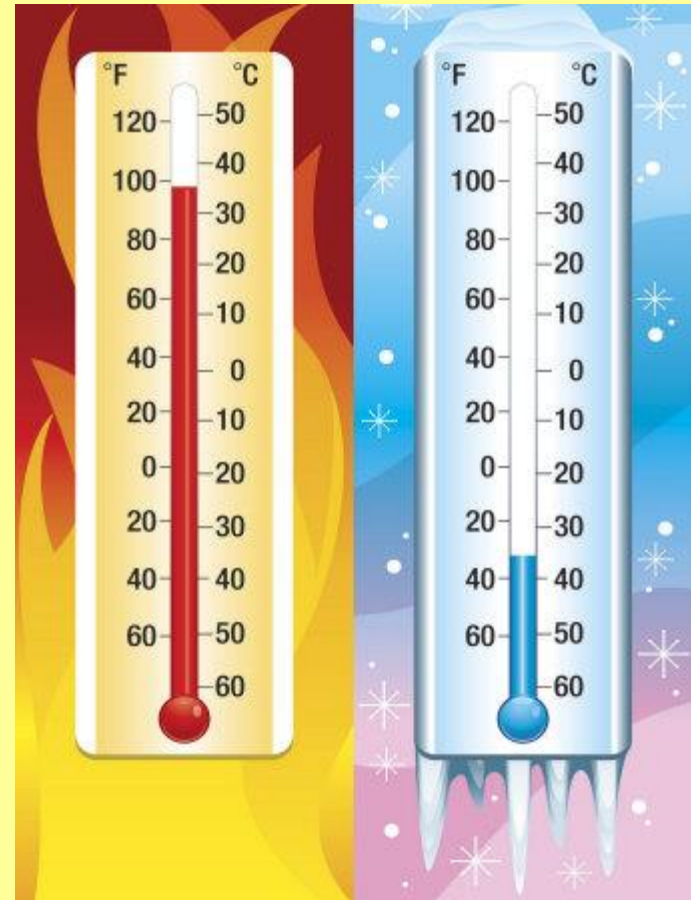
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<b>Solid</b>	<b>Liquid</b>	<b>Gas</b>
Holds Shape	Shape of Container	Shape of Container
Fixed Volume	Free Surface	Volume of Container
	Fixed Volume	

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# Temperature

- Measurement of how fast particles are moving
- Amount of heat
- Units of Fahrenheit, Celsius, or Kelvin
- Tool: thermometer



# Magnetism

Some metals being attracted to/sticking to a magnet





# Relative density

Floating or  
sinking  
compared to  
water.



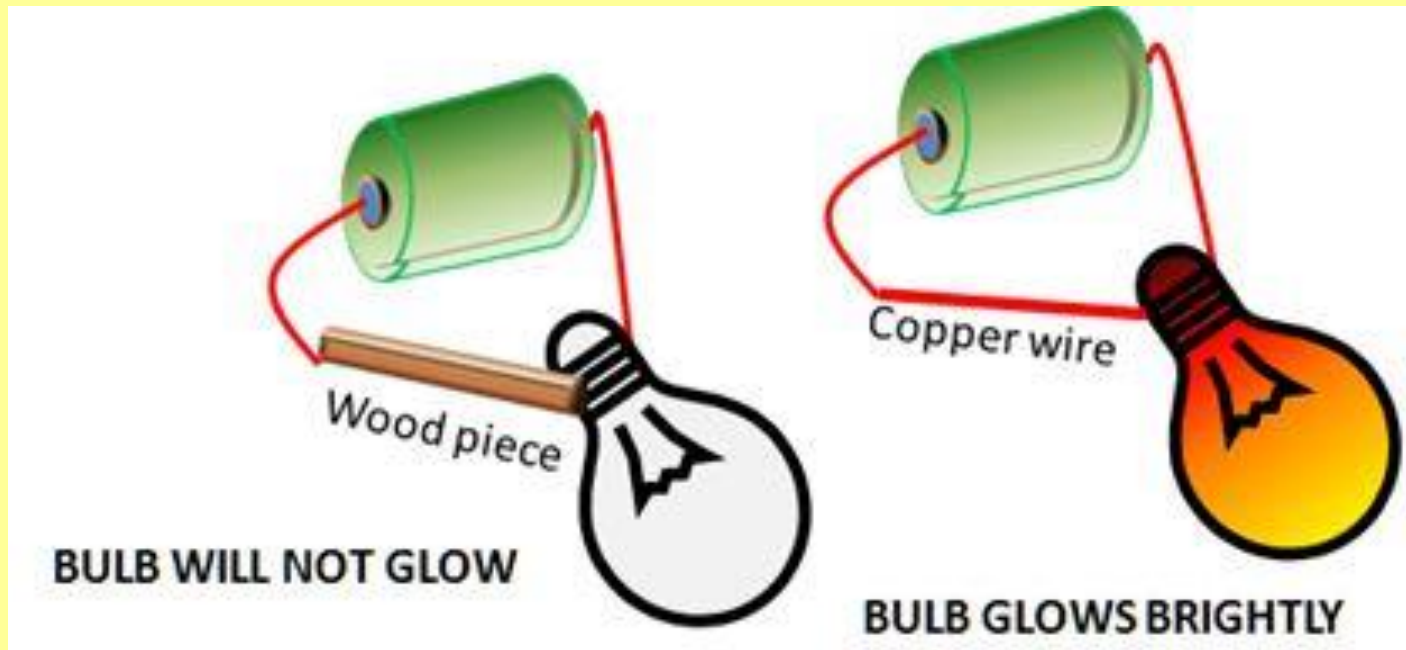
# Buoyancy\*\*

Ability to rise above the water level and float



# Conductor

Lets energy pass through



# Insulator

Does not let energy pass through; energy is blocked

