

Matter: anything that has mass + volume (takes up space)
Physical Properties: properties that do not change the chemical make up of a substance

Solid, liquid, gas, plasma

color, phase(state), texture, mass, shape, size, weight, volume, density

Physical Properties of pure substances that are dependent on the amount of matter.
These properties will vary depending on the amount you have.

Mass: amount of matter in something

Weight: pull of gravity on an object's mass

Volume: amount of space matter takes up

How do you measure these properties:

} Scale balance

$L \times W \times H =$ Volume
graduated cylinder
beaker
irregular object:
displacement

Physical Properties of pure substances that are independent of the amount of matter.

It does not matter how much you have, these properties will stay the same.

Melting Point: temperature at which a solid melts

Boiling Point: temperature at which a liquid boils

Density: the amount of matter in a given space "heavy" for its volume

Solubility: the ability of one substance to dissolve into another substance

How do you measure these properties:

$S \rightarrow L$

Water(solid) same as freezing point.
 0°C or 32°F

Water: 100°C or 212°F

$$\frac{m}{V} = \frac{\text{mass}}{\text{volume}}$$

density: 

"how tightly packed"