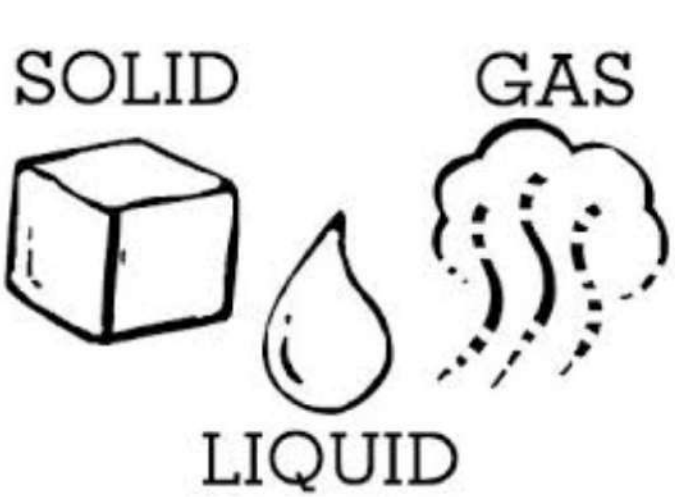
Matter



Alex Ketover 5D

What is Matter?

Matter is anything that has mass and takes up space

Properties of Matter

Mass

mass is the amount of matter in an object

-the unit of mass in kilograms or kg

-the benches we sit on and the water we drink are made up of mass.

Volume

-volume is the amount of space an object takes up

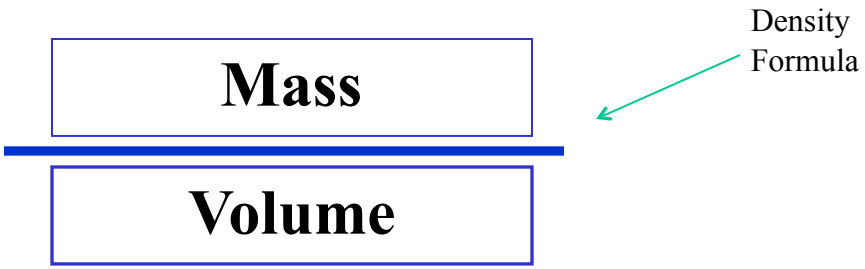
-the unit of volume in milliliters or mL

-a balloon has Mir volume than a golf ball.

Mass and Weight: Are They Different?

Mass vs. Weight	
Mass	Weight
MASS -Mass is the amount of matter of stuff in an object. -The unit we measure mass in is kilograms or (kg) -A pan balance helps me find the measurement of mass. -Wherever you are on earth or space your mass will always stay the same. Mass is the amount of matter in an object, so depending on your location mass will always stay the same.	WEIGHT -Weight is the force between earth and an object. -We measure weight in pounds and newtons or (N) for Newtons -A scale helps me find the measurement of weight. - Weight depending on it's location will change. If someone is on earth the weight will stay the same, if someone is on the moon the weight changes because there is less gravity on the moon.

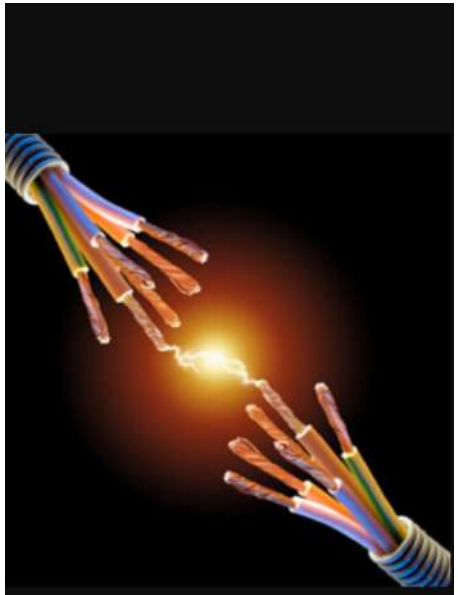
Density



Density is mass over volume which is gram per cubic centimeter. It compares an object's mass with it's volume. The density of an object tells us how massive something is for it's size. Density describes how tightly packed the solid liquid and gas particles are. Each material has it's own density. As long as the temperature doesn't change the density of an object or substance doesn't change. The density of gas depends greatly on it's temperature and pressure. Density can be used to help recognize or identify materials because of this. A brick has high density because it is made from molecules that have a lot of mass. The atoms are packed tightly together. Styrofoam on the other hand has atoms that are loosely packed. Low density objects will float in on a material which has high density (water). Wood and sponges are materials with low density. High density materials are glass and metal.

Conductor or Insulator?

Conductors let energy flow through them easily. If. Conductor that is charged is touched to another object the conductor can transfer it's charge



Insulators don't let energy flow through them easily. It also does not allow heat, electricity, light or sound to pass through it

MATTER

Properties
Mass
Volume
Density
Weight

- **Careers**
- **Mass is used for every and any job.**
- **Volume is used in races because the less volume you have the faster you run.**
- **Density is used for life guards because they need to save people from being too dense.**
- **Weight is used for weight watchers so they can help there customers.**

Conductors
and
Insulators

References:

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Grolier http://go.grolier.com

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