

Matter – the “stuff” that everything is made of.

Inertia - the resistance of an object to changes in motion.

1. If an object is at rest, a force is needed to make it move.
2. If an object is moving, a force is needed to slow it.

Mass - the amount of matter in an object.

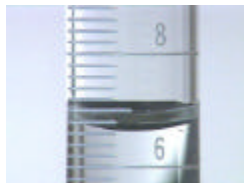
1. The mass of an object is constant. Mass does not change as an object is moved from one place to another. For example, when you go to the moon, all your body parts are still attached even though you weigh less!
2. Measured in **grams** (g) or **kilograms** (kg).

Weight - a measure of the pull of gravity on an object.

1. All objects exert a gravitational attraction on other objects.
2. For this reason, the weight of an object is not constant.
3. The SI unit of weight is the **Newton** (N). One Newton = 1 kg . m / s²
4. Weight is calculated using the equation: **W = mg**
5. The **m** represents the mass of the object and the **g** represents the acceleration of gravity.
6. Near the surface of the Earth, the acceleration of gravity is 9.8 meters per second per second - **9.8 m/s²**.

Volume - the amount of space an object takes up.

1. The SI unit for volume is the **liter** (L).
2. Formula= Length x Width x Height = cm³ or End mL – Start mL= mL³ or cm³



Meniscus – point at the bottom of the curve of a liquid in a graduated cylinder

GRAVITY- Gravity is a physical force that pulls objects together. Every bit of mass produces a gravitational force; this force attracts all other masses. The more massive an object, the stronger the gravitational force. [Newton](#) formulated the laws of gravity.

Density – a specific property of matter that is related to its mass divided by the volume. $D=M/V$

