***WHAT IS THE DIFFERENCE BETWEEN MASS AND WEIGHT?***

***Mass is a measure of how much matter an object has. Weight is a measure of how strongly gravity pulls on that matter.*** Thus if you were to travel to the moon your weight would change because the pull of gravity is weaker there than on Earth but, your mass would stay the same because you are still made up of the same amount of matter. ref:http://www.physlink.com/Education

 **Mass is the size of an object and weight is the amount of force gravity has on an object**. --- Mass is constant all the time. It is measured in kilograms (kg). Weight is mass X gravity, so on Earth 1 gram equals 10 Newtons (the measure of Weight). Weight depends on gravity. When you are 'weighing' yourself, you are really massing yourself - who gives their weight in Newtons? So both mass and weight will typically use kilograms. You're welcome :)

**weight = mass x gravity**

W = M x 9,8 m/s2  (on Earth)

W = M x 1,6 m/s2  (on the Moon)

(The Moon's gravity is 1/6 of the Earth's gravity)