

The Difference Between Mass and Weight

Definitions

Mass: the measure of the amount of matter in an object

Weight: the measure of the gravitational force on an object

So.....

The mass of an object has nothing to do with gravity **while** the ***weight*** of an object is dependent on gravity.

Universal Effects

The mass of an object will be constant no matter where in the universe we measure it!

The weight of an object will change when our location in the universe changes!

In other words....

A monkey with a mass of 73 kilograms on Earth will have a mass of 73 kilograms on the moon, jupiter, saturn, etc.



While a.....

Monkey with a weight of 95 pounds on Earth would weigh 15.7 pounds on the moon because there is less gravity. But, he would weigh 224.5 pounds on Jupiter because there is more gravity!

How do we measure mass?

- Using a balance
- Labeling our answer with grams, kilograms, milligrams, etc.



How do we measure weight?

- Using a spring scale
- Labeling with newtons (N) or pounds (lb.)

