

## Gravity Basics

Gravity = is a force of attraction between objects that is due to their mass

All objects in the universe attract each other through gravitational force... this is the Law of Universal Gravitation

Strength of Gravity Determined by...

1. Mass = how much stuff is in an object
2. Distance = how far away it is

Force of Gravity:

$$F = \frac{G \cdot m_1 \cdot m_2}{r^2}$$

$G$  = gravitational constant =  $6.67 \times 10^{-11}$

$m_1$  = mass of 1<sup>st</sup> object

$m_2$  = mass of 2<sup>nd</sup> object

$r$  = radius (distance between the center of the two objects)