

Physics Vocabulary ~ Chapter 4 B

- **Gravitational Force** ~ F_{grav} , The force of gravity is the force with which the earth, moon, or other massively large object attracts another object towards itself. By definition, this is the weight of the object. All objects upon earth experience a force of gravity that is directed "downward" towards the center of the earth.
- **Inertia** ~ the tendency of an object to resist a change in motion unless an outside force acts on the object
- **Kinetic Frictional Force** ~ the force that opposes the movement of two surfaces that are in contact and are sliding over each other
- **Mass** ~ the amount of matter that is contained by the object
- **Net Force** ~ a single force whose external effects on a rigid body are the same as the effects of several actual forces acting on the body
- **Normal Force** ~ F_{norm} , The normal force is the support force exerted upon an object that is in contact with another stable object.
- **Spring Force** ~ F_{spring} , The spring force is the force exerted by a compressed or stretched spring upon any object that is attached to it. An object that compresses or stretches a spring is always acted upon by a force that restores the object to its rest or equilibrium position.
- **Static Frictional Force** ~ the force that resists the initiation of sliding motion between two surfaces that are in contact and at rest
- **Strong Nuclear Force** ~ The interaction that binds nucleons together in a nucleus
- **Tension** ~ T or F_{tens} , The tension force is the force that is transmitted through a string, rope, cable or wire when it is pulled tight by forces acting from opposite ends.
- **Terminal Speed** ~ the highest velocity attainable by an object as it falls through air.
- **Weak Nuclear Force** ~ This responsible for radioactive decay of subatomic particles and it plays an essential role in nuclear fission.
- **Weight** ~ the force of gravity acting upon an object