

## Physics Vocabulary ~ Chapter 6

- **Collision** ~ an event in which two or more bodies exert forces on each other for a relatively short time
- **Conservation of Momentum** ~ in a closed system (one that does not exchange any matter with its surroundings and is not acted on by external forces) the total momentum is constant.
- **Elastic Collision** ~ a collision between ideally elastic bodies in which the objects bounce after collisions so that they move separately. The momentum and kinetic energies are conserved.
- **Force** ~ an action exerted on a body in order to change the body's state of rest or motion; force has magnitude and direction
- **Impulse** ~ the product of the force and the time over which the force acts on an object
- **Impulse-Momentum Theorem** ~ states that the change in momentum of an object equals the impulse applied to it.
- **Inelastic Collision** ~ a collision in which two objects deform together after colliding. Momentum is conserved but kinetic energy decreases. The object move separately after the collision.
- **Kinetic Energy** ~ the energy of an object that is due to the object's motion
- **Momentum** ~ a quantity defined as the product of the mass and velocity of an object
- **Perfectly Inelastic Collision** ~ a collision in which two objects stick together after colliding. Momentum is conserved but kinetic energy decreases. The object move together after the collision.