

Motion Study Guide

Term	Definition
acceleration	the rate at which an object's speed changes over time
centripetal force	a force directing an object moving in a circular path
distance	how far apart two objects are
force	a push or a pull
friction	a force that opposes motion; force that slows objects rubbing together
gravity	the force of attraction between two items
inertia	when an object resists changing its motion
kinetic energy	energy of motion
mass	amount of matter in an object; amount of inertia an object has
motion	movement
newton	measurement of force
pendulum	any hanging object that swings
potential energy	stored energy; energy of place or position
speed	a change in distance over time
velocity	an object's speed and direction
weight	the amount of gravity that acts on an object

Newton's Laws of Motion

first (inertia)	An object at rest will remain at rest until a force acts upon it to make it move. A moving object will keep moving until a force changes its motion.
second	$\text{Force} = \text{Mass} \times \text{Acceleration}$
third	For every action, there is an equal and opposite reaction.