

## Forces and Motion Vocabulary Words

Position	The location of an object
Speed	A measurement of distance over time
Force	A push or pull on an object
Energy	The ability to do work. Used to move muscles, operate machines, cook meals, and heat room
Machine	Something that replaces human effort
Gravity	The force that pulls things toward Earth
Balanced Forces	Forces that have a net force of zero (the object is still)
Unbalanced Forces	Forces that have a net force that is not zero (object will move)
Inertia/ Newton's 1st Law of Motion	Objects in motion stay in motion, objects at rest stay at rest unless acted on by an outside force
Momentum	The product of the mass and velocity of an object
Friction	The force that acts on an object to stop its motion
Simple Machine	A tool that makes work easier; it has few or no moving parts
Pushing Force	A force that pushes an object
Pulling Force	A force that pulls an object
Newton's 2nd Law of Motion	$\text{Force} = \text{Mass} \times \text{Acceleration}$ By increasing or decreasing the mass or acceleration of an object you change the force applied by that object
Newton's 3rd Law of Motion	For every action, there is an equal and opposite reaction
Pulley	A simple machine that used grooved wheels and a rope to raise, lower, or move a load

Lever	A stiff bar that rests on a middle support (fulcrum) that is used to lift or move a load
Wedge	An object with at least one slanted edge used to cut material
Screw	An inclined plane that is wrapped around a pole. It is used to hold things together
Wheel and Axle	A simple machine made up of a wheel with a rod (axle) through its center that lifts or moves loads
Inclined plane	A slanted surface
Solar Energy	Energy from the sun
Mechanical Energy	Energy of motion
Thermal Energy	Heat energy
Electrical Energy	Energy created from an electrical current
Sound Energy	Energy created from sound
Chemical Energy	Energy that is released by a chemical reaction
Kinetic Energy	Energy of motion
Potential Energy	Energy at rest