
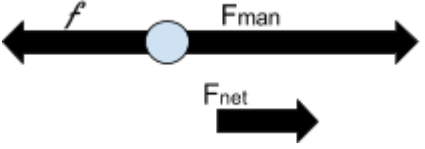
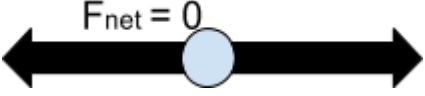


Forces Words to Know

Word	Definition	Example
force	A push or pull on an object due to another object.	A foot kicking a soccer ball.
vector	Arrows that represent the direction and strength of a force(push/pull).	
net force	The sum of all the forces acting on an object by different objects.	
Net zero	Adding all the forces acting on an object could lead to a total of zero.	
gravity/weight	Non contact force that pulls an object towards the center of Earth. Represented with the symbol g or w .	The force that pulls you down to the ground when you jump out of a plane.
Normal force	An object resting on another object feels a force upwards(perpendicular to the surface) which keeps the two objects separated from each other. Normal force is opposite of Weight(gravity). Normal force is however strong it has to be to keep the object from falling through the surface.	A pencil doesn't fall through the desk it is resting on because of normal force.
acceleration	Change of motion, represented by the symbol: a . Acceleration occurs in the same direction as the Net Force.	The force that pulls you down to the ground when you jump out of a plane.
mass	The amount of stuff that makes up an object.	Everything that exists takes up space therefore has mass.
motion	The act of moving.	A ball rolling down a hill.
speed	The amount of distance that an object travels over time. Represented with just a number.	A car travels 25 mph (miles per hour).

	Direction doesn't matter.	
Frictional force	A force caused by the small bumps on the surface of an object hitting bumps on the surface of objects they contact. Friction is caused by the interaction of two surfaces creating a push in the opposite direction of motion.	A toy car slows down and eventually stops over carpet because of friction.
Rolling friction	Acts against the direction of motion when an object rolls over another object.	Toy car rolling down the ramp.
Sliding friction	Frictional force acts in a direction opposite of the motion of an object that is sliding across another surface.	Pushing a file cabinet across the floor
Static friction	Frictional force directed opposite of the <i>intended</i> direction of motion. It opposes the sliding of an object when it's not yet moving.	The baby trying to push a box full of books.
Fluid friction (draft force)	The resistance you feel when you move through any fluid such as air or water.	A fish swimming through water.
velocity	The speed of an object in a particular direction.	Car A travels to the right at 25 mph. Car B travels to the left at 50 mph. Car C travels to the right at 50 mph.
Contact force	Two objects physically touching.	Hand pushes a cart. The child pulls the rope.
Non-contact force	Forces that do not need to have two objects touch, they can exert a force from a distance	gravity(weight) Magnetism electrical(static)