

FORCE AND MOTION

Force - the push or pull on an object resulting from the interaction with another object or force.

Force Diagram / Free Body Diagram - A diagram of all of the external forces acting on an object.

Inertia - an object's resistance to a change in motion. An object at rest will stay at rest and an object in motion will stay in motion unless a force acts upon it.

Motion - to action or process of moving or being moved.

Speed - the rate of movement

Velocity - the speed of something in a certain direction

Acceleration - a change in the motion of an object over time.

Gravity - the force that attracts an object toward the center of the earth.

Friction - the force of resistance when one object touches another.

Mass - the amount of matter something has

Tension - the pull force that is transmitted through a string, rope or similar object when it is pulled tight.

Net force - (F_{net}) - the sum of all forces on an object. A vector force ---->

Balanced force - all forces on an object are equal

Unbalanced force - some forces on an object are not equal.