

Vocabulary

1	Force	An interaction that causes an affected object to be pushed or pulled in a certain direction.
2	Friction	The resistance that one surface or object encounters when moving over another.
3	Isaac Newton	An English physicist and mathematician who discovered gravity.
4	Newton Metre	A device that measures Newtons. All Newton metres are related to the unit of force called a "Newton"
5	Newton	The newton, usually abbreviated as N, is the Standard International unit of force. One newton is the force required to cause a mass of one kilogram to accelerate.
6	Gravity	A force that attracts any two objects with mass.
7	Mass	Mass is a measure of the amount of matter in an object. Mass is usually measured in grams (g) or kilograms (kg)
8	Pulley	A pulley is a wheel on an axle or shaft that is designed to support movement and change of direction
9	Lever	A rigid bar resting on a pivot, used to move a heavy or firmly fixed load with one end when pressure is applied to the other.
10	Air Resistance	The forces that are in opposition to the relative motion of an object as it passes through the air
11	Water Resistance	A force that tries to slow things down that are moving through water. It is a type of friction.
12	Up thrust	The upward force that a liquid or gas exerts on a body floating in it.

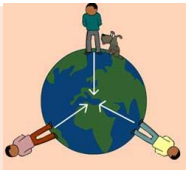
How is friction caused?



Friction is the resistance of motion when one object rubs against another. Anytime two objects rub against each other, they cause **friction**. **Friction** works against the motion and acts in the opposite direction. When one object is sliding on another it starts to slow down due to **friction**.

What is gravity?

Gravity is a force which tries to pull two objects toward each other. Anything which has mass also has a gravitational pull. The more massive an object is, the stronger its gravitational pull is. Earth's **gravity** is what keeps you on the ground and what causes objects to fall.



Sir Isaac Newton was an English mathematician and mathematician and physicist who lived from 1642-1727. The legend is that Newton **discovered Gravity** when he saw a falling apple while thinking about the forces of nature.

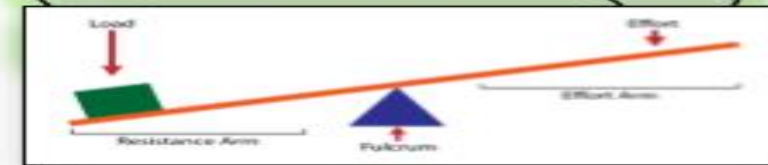
PULLEYS

Used like levers to lift loads with less effort but for longer distances. Rope is passed through a pulley which is attached to an anchor point and returned back to the ground to be pulled.

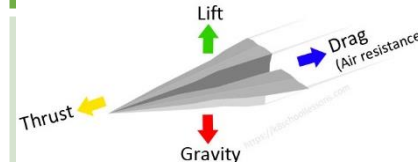


LEVERS

A way to lift heavy weights using the least amount of effort. The longer the lever, the easier it is to lift. The fulcrum is where the lever pivots in order to lift the heavy load.



Air Resistance



Air resistance is the frictional force air exerts against a moving object. As an object moves, air resistance slows it down. The faster the object's motion, the greater the air resistance exerted against it.

Water Resistance

Water resistance - is a force that tries to slow things down that are moving through **water**. It is a type of friction and sometimes called drag. Floating - When you float in **water**, you feel so much lighter in weight. The reason is because the up thrust from the **water** is pushing up against your body weight.

