

# YEAR 5 - FORCES - AIR RESISTANCE

RELATED VOCABULARY	DEFINITION
<b>Force</b>	A force is an interaction which can change the motion of an object
<b>Gravity</b>	The force which causes things to drop to the ground.
<b>Air resistance</b>	Air resistance is a type of friction between air and another material
<b>Friction</b>	The force that makes it difficult for things to move freely when they are touching each other.
<b>Water resistance</b>	A force that slows things down that is moving through water.
<b>Up thrust</b>	An upward push or thrust
<b>Mass</b>	A measure of the amount of matter in an object (measured in grams and kilograms). It will be the same whether you are on Earth or in space
<b>Weight</b>	Is the measure of the force of gravity on an object. The mass of an object will never change, but the weight of an item can change based on its location
<b>Gears</b>	A toothed wheel that works with others to increase speed.
<b>Mechanisms</b>	A part, often consisting of a set of smaller parts, which performs a particular function
<b>Pulleys</b>	A machine with a wheel and a fixed axle (pin)
<b>Fulcrum</b>	The point where a lever turns (also called a pivot)
<b>lever</b>	A rigid bar that rests on a fulcrum. It is used to lift/move heavy objects.
<b>Buoyancy</b>	The ability that something has to float on a liquid or in the air.

### Pulleys

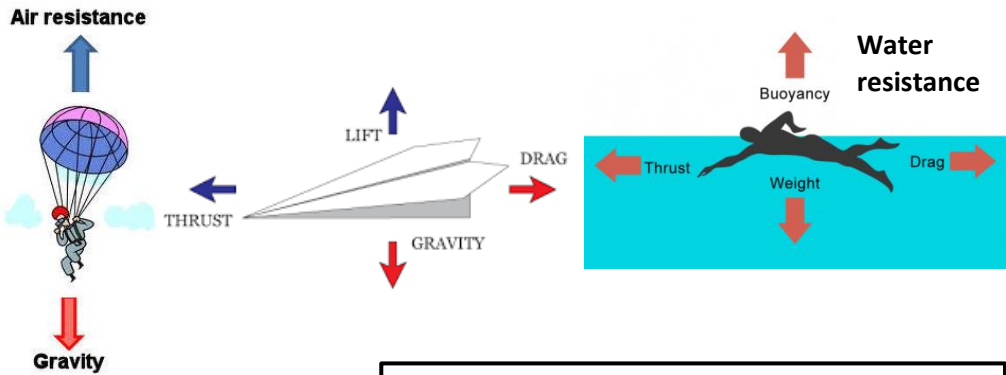
Pulleys are made by looping a rope over one or more wheels. They are often used to lift heavy objects: pulling down on one end of the rope creates an upward pull at the other end. Looping the rope over more wheels increases the upward force.

### Levers

A lever is a long, sturdy body that rests on a support called a **fulcrum**. The fulcrum is the place where the lever pivots. It is one of the three parts or actions that work together in a lever. The load is the object that is being lifted or affected.

### Gears

Gears are used to transmit power from one part of a machine to another. Connected gears can increase speed, increase force. When joined, the direction of rotation of the driven gear is the opposite of the drive



**Isaac Newton**

He discovered the idea of forces acting upon objects on Earth.  
 He discovered that gravity acts upon objects on Earth.  
 For every action there is an equal and opposite reaction.

