



<b>force</b>	A <b>force</b> is a push or a pull. Forces can make things start moving, stop moving or change their shape.
<b>gravity</b>	A force that pulls things together.
<b>Earth</b>	The planet we live on.
<b>air resistance</b>	Friction between a moving object and
<b>water resistance</b>	Friction between water and an object moving through the water. .
<b>friction</b>	The force between two things that are moving (or trying to move) across each
<b>mechanisms</b>	Devices that allows a small force to
<b>simple machines</b>	Something that makes it easier to do a job eg. <b>pulleys, levers and gears.</b>
<b>lever</b>	Anything rigid moved around a fixed point called a fulcrum to make it easier
<b>pulley</b>	A cord around a wheel for lifting heavy things.
<b>gears</b>	Two or more toothed wheels that fit together and turn in opposite directions to change speed or direction of a

A force causes an object to start moving, stop moving, speed up, slow down or change direction.



Pushing the cart causes it to start moving and then speed up.

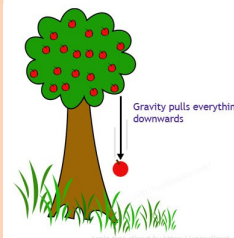


Pulling the dog's lead causes it to slow down and eventually stop.



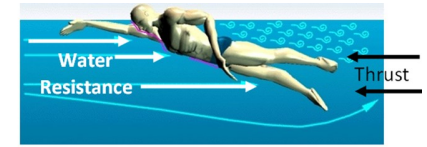
When the ball is hit (pushed) it changes direction.

Gravity is a force that acts at a distance. Everything is pulled to the Earth by gravity. This causes unsupported objects to fall.



Pulleys, levers and gears are all mechanisms, also known as simple machines.

Air resistance, water resistance and friction are contact forces that act between moving surfaces. The object may be moving through the air or water, or the air and water may be moving over a stationary object.



A mechanism is a device that allows a small force to be increased to a larger force. The pay back is that it requires a greater movement. The small force moves a long distance and the resulting large force moves a small distance, e.g. a crowbar or bottle top remover.



Name	Picture	How it Works	Used For
Lever		Helps to reduce the amount of force needed to move or lift an object, by increasing the distance through which the force acts.	<ul style="list-style-type: none"> <li>• stapler</li> <li>• door handle</li> <li>• claw of hammer</li> <li>• tweezers</li> </ul>
Pulley		Helps to reverse the direction of the lifting force, therefore multiplying the force your body produces on the object.	<ul style="list-style-type: none"> <li>• elevator</li> <li>• wells</li> <li>• theatre curtains</li> <li>• bulldozer</li> </ul>
Gear		The 'teeth' on the gears turn one another, and in doing so, helps to increase the power of a turning force.	<ul style="list-style-type: none"> <li>• cars</li> <li>• bikes</li> <li>• pendulum clock</li> <li>• vacuums</li> </ul>