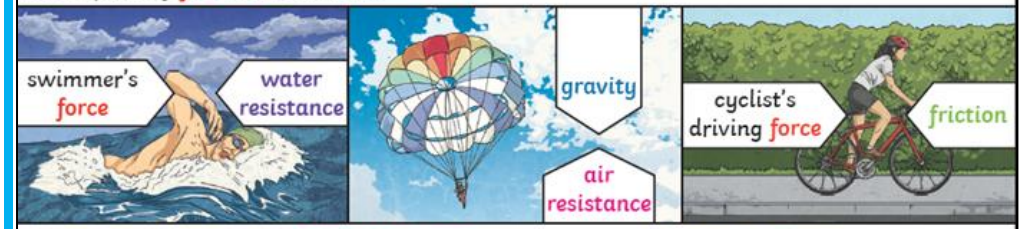
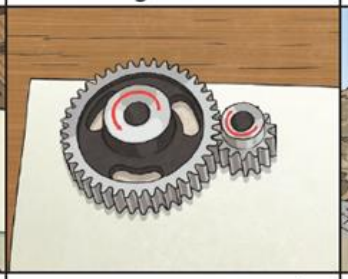
SCIENCE - FORCES

Examples of forces in action:

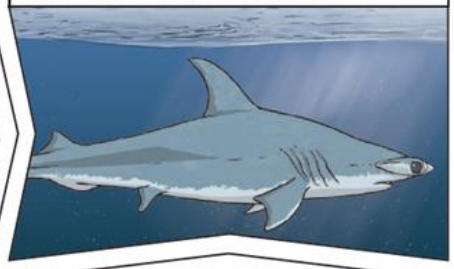


Water resistance and air resistance are forms of friction. Friction is sometimes helpful and sometimes unhelpful. For example, air resistance is helpful as it stops the skydiver hitting the ground at high speed. Friction on a bike chain can make the bike harder to pedal so it is unhelpful.

Pulleys	Gears/Cogs	Levers
		
Pulleys can be used to make a small force lift a lighter load. The more wheels in a pulley, the less force is needed to lift a weight.	Gears or cogs can be used to change the speed, force or direction of a motion. When two gears are connected, they always turn in the opposite direction to each other.	Levers can be used to make a small force lift a lighter load. A lever always rests on a pivot.

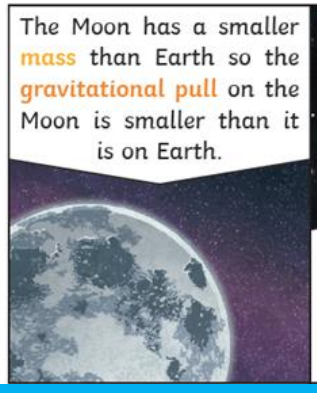
This shark is **streamlined**.

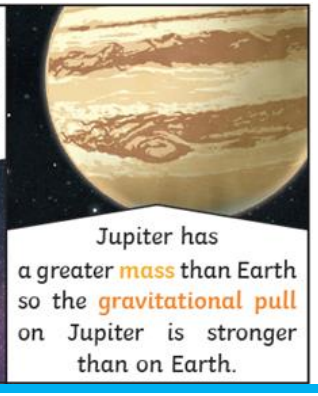
It has a pointed nose to cut through the water, and a smooth, low, curved back to allow the water to flow over and around it.



It does not create much water resistance so it can move through the water quickly.

The Moon has a smaller mass than Earth so the gravitational pull on the Moon is smaller than it is on Earth.





Jupiter has a greater mass than Earth so the gravitational pull on Jupiter is stronger than on Earth.

Vocabulary

Earth's Gravitational Pull
The pull that Earth exerts on an object, pulling it towards Earth's Centre. It is this that keeps us on the ground.

Forces Pushes or Pulls	**Friction** A force that acts between two surfaces or objects that are mobbing or trying to move
Gravity A pulling force exerted by the earth	**Air Resistance** A type of friction caused by air pushing against any moving object
Weight The measure of the force of gravity on an object	**Water Resistance** A type of friction cause by water pushing against any moving objects
Mass A Measure of how much matter (or stuff) is inside an object	**Mechanism** Parts which work together in a machine, EG, Pully, gears, levers
Buoyancy An upward force that a liquid applies to objects	**Streamlined** When an object is shaped to minimise the effects of air or water resistance