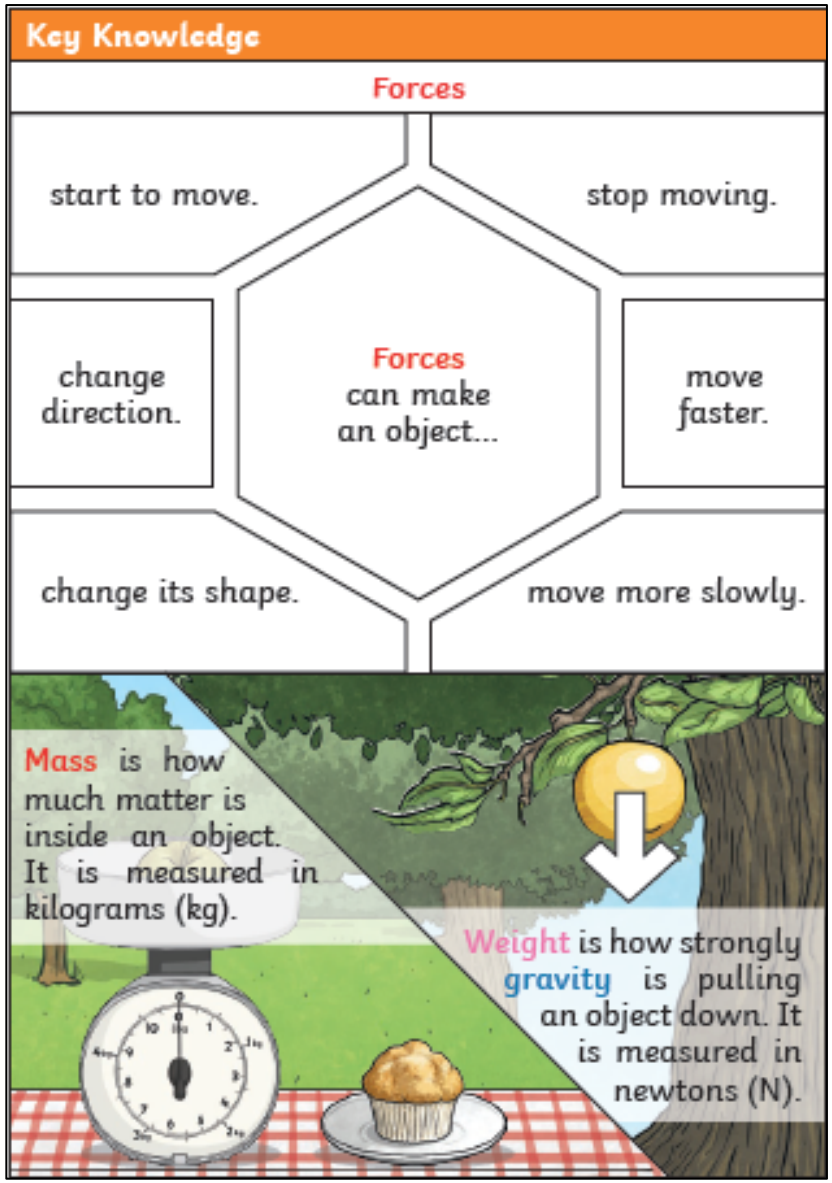
Year 5 - Forces

Key Vocabulary	
forces	buoyancy
gravity	streamlined
earth's gravitational pull	mechanism
weight	pulley
mass	gear
frictions	levers
air resistance	direction
water resistance	



We are learning and investigating…

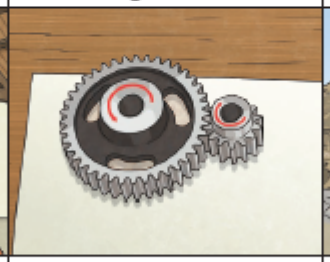
- what forces are
- gravity
- how weight changes in water and air
- friction
- air resistance
- how pulleys, levers and gears work in mechanisms

Year 5 - Forces

Key Knowledge

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.

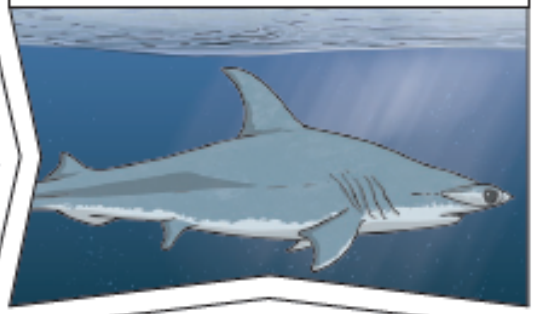
Pulleys	Gears/Cogs	Levers
		
Pulleys can be used to make a small force lift a lighter load. The more wheels in a pulley, the less force is needed to lift a weight.	Gears or cogs can be used to change the speed, force or direction of a motion. When two gears are connected, they always turn in the opposite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

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.

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.