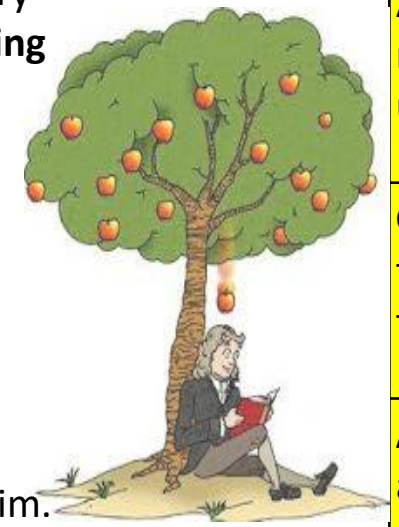
Year 5: How do forces affect our world?

Subject Specific Vocabulary

friction	Friction is a force between two surfaces that are sliding, or trying to slide, across each other. Friction slows things down.
gravity	Gravity is a force which tries to pull two objects towards each other.
air resistance	Air resistance is a type of friction between air and another material. For example, when an aeroplane flies through the air.
water resistance	If you go swimming, there is friction between your skin and the water particles.
levers	A lever can be described as a long rigid body with a fulcrum along its length.
pulleys	Pulley is a simple machine and comprises of a wheel on a fixed axle, with a groove along the edges to guide a rope or cable.
gears	Gears are wheels with teeth that slot together. When one gear is turned the other one turns as well.
parachute	A parachute is a device used to slow down an object that is falling towards the ground. As the parachute opens, the air resistance increases.
Newton	During his lifetime, Newton developed the theory of gravity and made breakthroughs in the area of optics, such as the reflecting telescope.

Sir Isaac Newton 1643-1727

The famous story of an **apple falling to the ground from a tree** illustrates how Newton's work on gravity was inspired by things he observed in the world around him.



Air resistance



The greater the air resistance the slower the parachute will fall. Air resistance will be increased if there is a greater surface area of fabric.

Sticky Knowledge

A force may **push** or **pull** something, making it move. Forces may make things start, stop, speed up or slow down.

Gravity is a type of force which pulls things towards the centre of the earth. E.g. A ball falling to the ground.

Air resistance is a type of friction between the air and another material, it affects how fast or slowly objects move through the air. E.g. An aeroplane flying through the air.

Water resistance is another type of friction which slows objects down when moving through water. Eg. Trying to run through water, water resistance slows you down

Isaac Newton helped develop the theory of gravity.