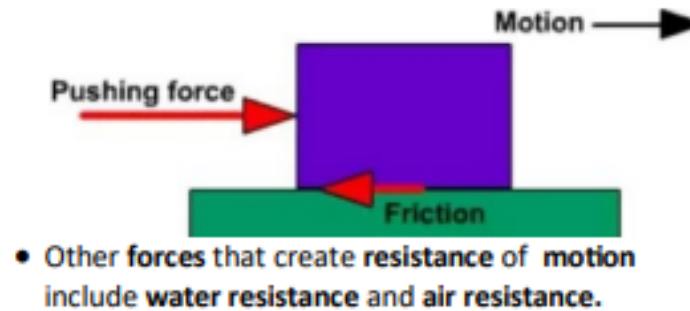


SMRP Knowledge Organiser for Year 5: Forces

Science knowledge

- Forces are pushes and pulls. These forces change the motion of an object.
- They will make it start to move or speed up, slow it down or even make it stop.
- For example, when a cyclist pushes down on the pedals of a bike, it begins to move. The harder the cyclist pedals, the faster the bike moves. When the cyclist pulls the brakes, the bike slows down and eventually stops.



What is gravity and air resistance?

- Gravity is the force that pulls objects to the centre of the Earth.
- Air resistance pushes up on the parachute, opposing the force of gravity. This makes the parachute land more slowly.

- If you go swimming, there is friction between your skin and the water particles. This is known as water resistance.
- Water resistance is the friction that is created between water and an object that is moving through it.



Science Vocabulary

Word	Definition
Force	A force is a push or a pull.
Friction	The resistance of motion when one object rubs against another.
Gravity	A force that pulls everything down towards the centre of the Earth.
Air Resistance	A type of friction between air and another material. Also known as <i>drag</i> .
Water Resistance	A type of friction between water and another material.
Newton	A unit used to measure force.

The force that pulls things to the ground on Earth (and other planets) is called gravity.

Gravity also holds Earth and the other planets in their orbits around the Sun.

On Earth, gravity is the reason why things fall when they are dropped and why we don't float away!