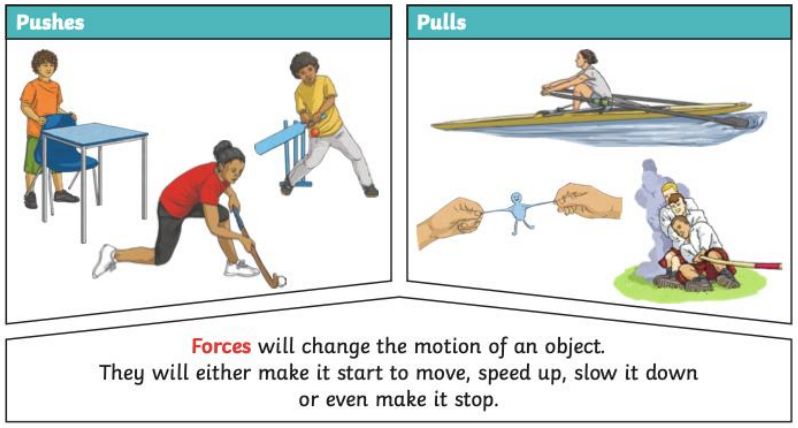
Forces and Magnets:
What are the different types of forces around us?

Key Vocabulary	
Attract	A force that pulls objects together.
Distance	The length between two objects.
Forces	A push or pull that acts upon an object that can cause it to move, change shape or change direction.
Friction	The force that acts upon one surface when it moves against another.
Interact	Two objects working together
Magnet	An object made of iron which produces a magnetic force that pulls objects towards it/ pushes objects from it over a distance.
Magnetism	When a magnet pulls objects towards it or pushes objects away.
Magnetic poles	Each end of the magnet where the force is the strongest.
Repel	Repulsion of a force that pushes something away.
Surface	The top layer of something.

Diagrams/knowledge



Key Knowledge

Forces can be pushes or pulls that act upon an object.

There are other forces in the world such as gravity, friction and magnetism.

Friction is force that acts between two surfaces or objects that are touching and moving across each other.

The amount of friction created by an object moving over a surface depends on the roughness of the surface and the object and the force between them.

Magnets have two poles: north and south.

Magnetism is when magnet pulls towards (attracts) or pushes away from (repels) another object. This can happen at a distance. The objects do not have to be touching.

Magnetism is a force which only some materials are affected by.

All magnetic materials are metal but not all metals are magnetic.

William Gilbert

The Englishman William Gilbert was the first person to investigate magnetism using scientific methods. He also discovered that the Earth itself is a weak magnet.

Working Scientifically

	What do magnetic materials all have in common? Are all metals magnetic?
	Which surface will create most friction for the toy car?
	What patterns are there in the way magnets repel and attract?

Diagrams/knowledge