

Knowledge Organiser: Year 3 Spring Term

Key Learning

- A force is a push or a pull.
- When an object moves on a surface, the texture of the surface and the object affect how it moves. It may help the object to move better or it may hinder its movement e.g. ice skater compared to walking on ice in normal shoes.
- A magnet attracts magnetic material.
- Iron and nickel and other materials containing these, e.g. stainless steel, are magnetic.
- The strongest parts of a magnet are the poles.
- Magnets have two poles – a north pole and a south pole.
- If two like poles, e.g. two north poles, are brought together they will push away from each other – repel. If two unlike poles, e.g. a north and south, are brought together they will pull together – attract.
- For some forces to act, there must be contact e.g. a hand opening a door, the wind pushing the trees.
- Some forces can act at a distance e.g. magnetism. The magnet does not need to touch the object that it attracts.

Prior learning:

- Explore how things work. (Nursery – Forces)
- Explore and talk about different forces they can feel. (Nursery – Forces)
- Talk about the differences between materials and changes they notice. (Nursery – Forces)
- Explore the natural world around them. (Reception – Forces)
- Describe what they see, hear and feel whilst outside. (Reception – Forces)
- Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. (Y2 - Uses of everyday materials)

Forces & Magnets

Common Misconceptions

Some children may think...

- the bigger the magnet the stronger it is
- all metals are magnetic.

Key Vocabulary

force	An action that changes or maintains motion of an object.
push	A force that moves something away.
pull	A force that moves something towards it.
twist	To turn something
contact force	A force where the two objects touch each other.
non-contact force	A force where no contact is needed.
magnetic force	The force of attraction or repulsion between certain objects.
magnet	Rock or piece of metal that pulls certain objects towards it.
bar magnet, ring magnet, button magnet, horseshoe magnet	Types of magnets.
attract	To pull towards
repel	To keep something away
magnetic material	A material that sticks to a magnet.
poles – north and south	Either end of a magnet