

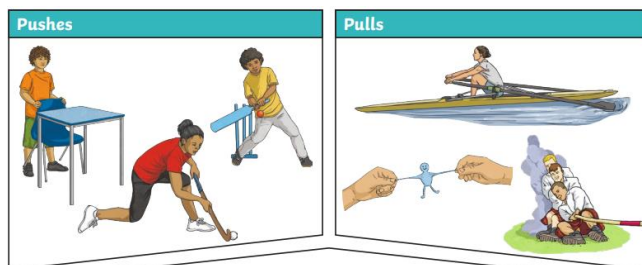
Year 3 and 4: Forces and Magnets Knowledge Mat

Subject Specific Vocabulary Dozen

force	A pushing or pulling action that can make things move, change direction, or change shape.
pull	A pull is the force of bringing an object closer.
push	A push is the force that moves an object away from something.
twist	A change in direction.
non-contact force	A non-contact force is a force which acts on an object without coming physically in contact with it.
contact force	Contact force is a force that is applied by objects in contact with each other.
magnet	A rock or a piece of metal that can pull certain types of metal toward itself.
magnetic	Attracted by a magnet.
repel	Give out a force that pushes the other pole away.
attract	To pull or draw towards a pole
magnetic poles	The ends of a magnet are called its poles. One is called the south pole and the other north pole.

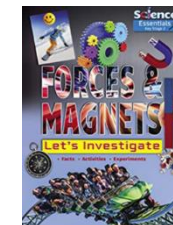
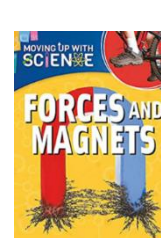
What I will know at the end of the unit:

- Compare how things move on different surfaces
- Notice that some forces need contact between two objects, but magnetic forces can act at a distance
- Observe how magnets attract or repel each other and attract some materials and not others describe magnets as having two poles
- Predict whether two magnets will attract or repel each other, depending on which poles are facing.
- Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic material



Forces will change the motion of an object. They will either make it start to move, speed up, slow it down or even make it stop.

Exciting Books



Sticky Knowledge about forces

- 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.

surface

The top layer of something.

