

Forces and Magnets: Year 3 Knowledge Mat

Subject Specific Vocabulary				Exciting Books
metal	Usually magnetic, shiny solids that conduct heat or electricity.			
south/north pole	There are two poles in a magnet, a North-seeking pole and a South-seeking pole.			
push	A force that changes the direction of an object away from you.	Facts about forces and magnets		
forces	Forces are pushes and pulls in a particular direction.	Magnets are made up of tiny magnetic particles which have all lined up in the same direction, producing a magnetic field.		
pull	A force that changes the direction of an object towards you.			
magnet	A magnet is a rock or a piece of metal that can pull certain types of metal toward or away from itself.	Magnets always contain two poles (north and south) If one end of a magnet is the north pole and the end of the other magnet is the south pole, both pieces will attract; magnets will repel if two north poles or south poles are brought together.		
attract	Pull toward one another.			
repel	Push away from one another.	Magnetic materials are always made of metal, but not all metals are magnetic.		
		Some forces need contact between two objects, but magnetic forces can act at a distance.		
		The Earth is a very big magnet. Its North and South poles are highly magnetic. The Earth's magnetic force is not very strong. The magnets on your fridge have more magnetic force.		

Year 3 Knowledge Organiser Forces and Magnets

Skills

Classifying:

- Sorting materials (metal/non-metal and magnetic/not magnetic)
- Sorting toys (e.g. push/pull)

Comparative/Fair Testing:

- How objects move on different surfaces e.g. cars, spinning tops, wind-up/clockwork toys
- Testing the strength of different magnets.

Researching:

- Finding out how magnets are used in everyday life.

Knowledge

To know that force is a push or a pull and when an object moves on a surface, the texture of the surface and the object affect how it moves

To know that 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 repel. If two unlike poles e.g. a north and south, are brought together they will attract.

To know that a magnet does not need to touch the object that it attracts/repels.

To know that some metals but not all are magnetic.