Science Knowledge Organiser

Topic: Forces and Magnets	Year 3: Spring Term	Strand: Physics

What I should already know
• Some objects are made out of metal • Some objects can be picked up by magnets • What a push is and what a pull is.

A magnet attracts magnetic materials.

These metals are magnetic:	
iron nails	**nickel** 50p coins contain nickel
stainless steel	**steel**

We can sort and classify materials as:

Objects moving on surfaces:

Ice skates have a sharp blade. This helps them move better on ice.

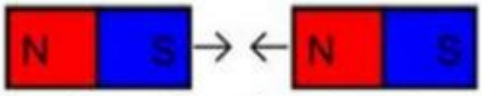
It is much harder to walk on ice in trainers.

A bowling green is closely mown so the grass is short and the balls roll easily.

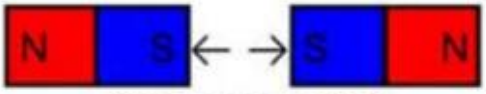
Key vocabulary	
force	A force is a push or a pull.
magnetic force	An invisible force that attracts magnetic metals.
magnet	Magnets attract magnetic materials. Iron, nickel, cobalt and materials that contain these (e.g. stainless steel) are magnetic.
attract	To pull towards.
repel	To push away.
poles	Magnets have two poles, a north pole and a south pole.
contact force	Many forces need contact to act:
non-contact force	Magnetic force does not need contact and can act at a distance.

Types of magnets:	
Bar	**Ring**
Button	**Horseshoe**

Magnets have two poles



Opposite poles **attract**



Same poles **repel**