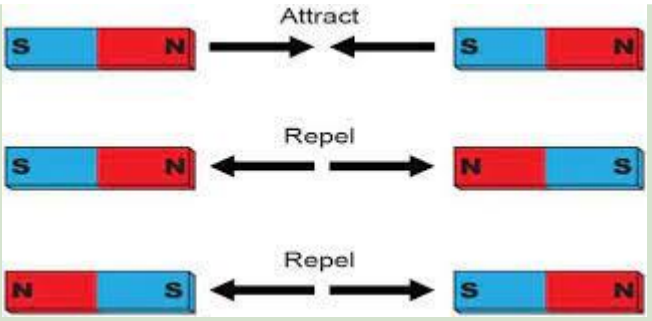
Eversley Primary School– Knowledge Organiser

Science	Forces and Magnets	Year 3	Autumn 2

Key Knowledge

Forces	Forces change the motion of an object. They will make it start to move or speed up, slow it down or even make it stop.
Poles	North and south poles are found at different ends of a magnet. Like poles repel and opposite poles attract each other
Repel	Repulsion is a force that pushes objects away. For example, when a north pole is placed near the north pole of another magnet, the two poles repel (push away from each other).
Attract	Attraction is a force that pulls objects together. For example, when a north pole is placed near the south pole of another magnet, the two poles attract (pull together).

Diagrams



Statutory Requirements

- 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
- Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify magnetic materials
- Describe magnets as having two poles. Predict whether two magnets will attract or repel each other, depending on which poles are facing

Key Vocabulary

Force	Push or pull
Friction	The force that acts between two surfaces or objects that are moving or trying to move, across each other
Motion	Moving from one place to another
Balanced force	When two forces are equal and there is no motion
Magnet	An objects which produces a magnetic force that pulls certain objects towards it.
Magnetic	Objects which are attracted to a magnet are magnetic. Examples: objects containing iron, nickel or cobalt.
Magnetic Field	The area around a magnet where there is a magnetic force which will pull magnetic objects towards the magnet.

Possible Experiences

- Test whether different objects are magnetic or non-magnetic at home by placing a fridge magnet on them. You could test wood, plastic, glass, wool, cotton and metal objects.
- Before you test each material, make a prediction whether the material will be magnetic or non-magnetic.
- Sort objects into magnetic and non-magnetic. If the fridge magnet sticks to the object, it means that it is magnetic (example: fridge door). If you try to place the fridge magnet and it doesn't stick to the object, it means it is non-magnetic (example: wooden leg of a table).