



Springbank Primary School Knowledge Organiser

Year 3

Term: Spring 1

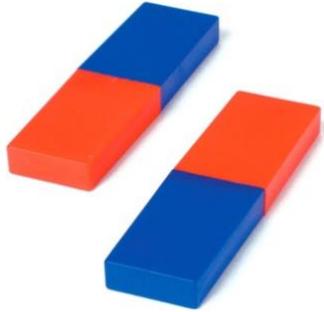
Focus: Forces and Magnets



Vocabulary	Definitions	Diagrams
Poles	The ends of a magnet are called poles. This is where the magnetic forces are strongest. The poles are called North pole and the South pole .	<div style="text-align: center;"> <p>Magnets attract or repel</p> </div> <div style="display: flex; justify-content: space-around; margin-top: 20px;"> <div style="text-align: center;"> <p>Magnetic field lines</p> </div> <div style="text-align: center;"> <p>Geomagnetism</p> </div> </div> <div style="margin-top: 20px;"> <p>Electromagnetic crane</p> </div>
Attraction	Opposite poles of two magnets will attract so the North pole of one magnet will attract and pull towards the South pole of another magnet.	
Repulsion	Two poles of the same type will repel, so two North poles or two South Poles will push away from each other.	
Magnetic fields	A magnetic field is the area around a magnet where object can be attracted by its magnetic force. You can see the shape of a magnetic field by spreading tiny pieces of iron filings around the magnet. The iron filings form lines around the magnet called magnetic field lines. The field lines curve from one pole back towards the other pole.	
Magnetic materials	A magnetic material is one that is attracted to a magnet. The Metals iron, nickel and cobalt are magnetic and steel which contains iron is also magnetic. All other metals are non-magnetic	
Geomagnetism	The Earth has a liquid iron outer core which creates a magnetic field around our planet. This is called geomagnetism.	
Magnetic compasses	A magnetic compass is a small magnet balanced on a point. The Magnet is attracted to the Earth's North magnetic pole so the compass will always point North and can be used for navigation.	
Electromagnetism	When an electric current flows through a wire it produces a magnetic field, this is called electromagnetism. When the current is turned off the magnetic field stops. Big loops of wire can produce strong magnetic fields which can be used in scrap yards to lift cars and sort metals.	

Types of magnets

Bar



Horseshoe



Wand



Ring



Compass magnet



Super strength

