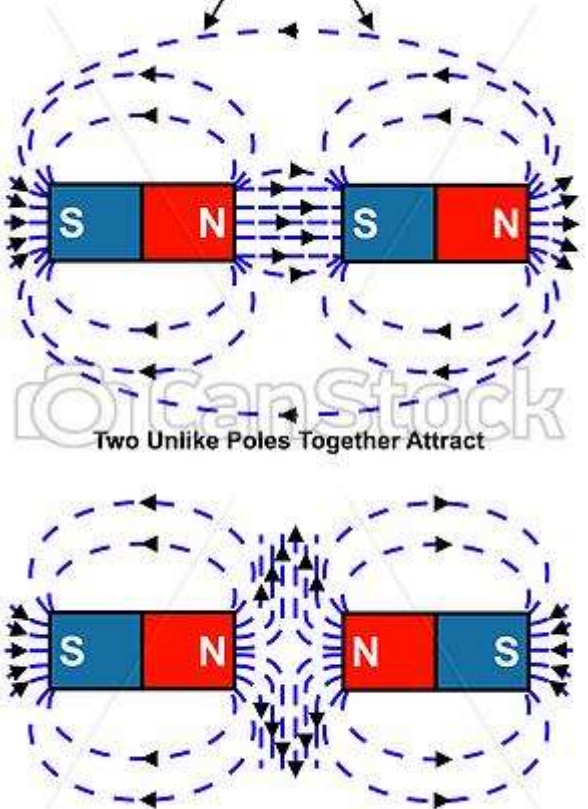


Learning Organiser for Year 3 Science: Forces and Magnets

National Curriculum Summary Key Subject Concept		Key Questions
<ul style="list-style-type: none"> • 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 some magnetic materials • Describe magnets as having two poles • Predict whether two magnets will attract or repel each other, depending on which poles are facing. 		<ul style="list-style-type: none"> • What is a force? • How is a magnetic force different? • What materials are magnetic? • How well does magnetism pass through or attract different materials? • Will magnets attract magnetic materials through paper, fabric etc? • Are bigger magnets stronger? • Are all metal objects attracted to a magnet? • Which part of a bar magnet attracts magnetic materials?
Key Vocabulary	Definition	Key Facts
Magnetic	Can be attracted to a magnet.	Forces can make things speed up, slow down, change shape and change direction. Magnets have a north pole and a south pole. Magnets attract or repel each other. Magnetic forces are different because they can act at a distance. Anything which has mass also has a gravitational pull. The more massive an object is, the stronger its gravitational pull is. Earth's gravity is what keeps you on the ground and what causes objects to fall.
Attract	To come together.	
Repel	To force away/apart.	
Force	A push or pull on an object.	
Resistance	A force that acts in the opposite direction of moving objects.	
Gravity	Gravity is a force which tries to pull two objects toward each other.	
Newtons (N)	A unit used to measure force.	

Working Scientifically Skills	Diagrams/Charts/Pictures
<p>Asking relevant questions and using different types of scientific enquiries to answer them setting up simple practical enquiries, comparative and fair tests</p>	<p style="text-align: center;">Magnetic Field Lines</p>  <p style="text-align: center;">Two Unlike Poles Together Attract</p> <p style="text-align: center;">Two Like Poles Together Repel</p> <p style="text-align: center;">© CanStockPhoto.com - csp49060639</p>
<p>Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p>	
<p>Setting up simple practical enquiries, comparative and fair tests</p>	
<p>Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</p>	<p style="text-align: center;">Biographical Information</p>
<p style="text-align: center;">Possible Experiences</p> <ul style="list-style-type: none"> • Search for magnetic materials using a range of magnets • Discuss and explore what magnetic materials do near magnets • Explore how two bar magnets interact • Make a fishing game with magnets • Make a maze game. The object has to follow the path/maze on a board with a magnet pulling the object from underneath • Group objects according to whether they are magnetic and non-magnetic 	<p>Isaac Newton (1642-1727) A scientist famous for his work on gravity.</p> 