

Year 3 – Forces and Magnets

Key Concepts		Learning possibilities	Scientific Enquiry	Prior Learning
<p>Compare how things move on different surfaces Notice that some forces need contact between 2 objects, but magnetic forces can act at a distance</p> <p>Observe how magnets attract or repel each other and attract some materials and not others</p> <p>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</p> <p>Describe magnets as having 2 poles</p> <p>Predict whether 2 magnets will attract or repel each other, depending on which poles are facing</p>		<ul style="list-style-type: none"> Carry out investigations to explore how objects move on different surfaces e.g. spinning tops/coins, rolling balls, clockwork toys, soles of shoes Explore group & classify what materials are attracted to a magnet. Explore the way that magnets behave in relation to each other. Use a marked magnet to find the unmarked poles on other types of magnets. Explore how magnets work at a distance e.g. through the table, in water, jumping paper clips up off the table. Devise an investigation to test the strength of magnets 		<ul style="list-style-type: none"> Explore how things work. (N - Forces) Explore and talk about different forces they can feel. (N - Forces) Talk about the differences between materials and changes they notice. (N - Forces) Explore the natural world around them. (Rec - Forces) Describe what they see, hear and feel whilst outside. (Rec - Forces) Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. (Y2 - Materials)
Cultural Capital				
			<p>Hans Christian Oersted 1777-1851</p> <p>The Danish scientist made the important discovery</p>	<p>Magnet Max by Monica Lozano Hughes</p> <p>Magnet Max loves his magnets, but his friend Nick thinks it's all magic!</p>
Key Vocabulary				
Magnet	Brass	Repulsion	Squash	
Spring	Attract	Force	Compress	
Metal	Repel	Elastic	Pole	
Iron	Magnetic	Pull towards	North	
Copper	Non-magnetic	Push away from	South	
Aluminium	Attraction	Stretch	Field	
Steel				

that electric current creates a magnetic field. But like many other important discoveries in science, Oersted's discovery was just a lucky accident.