



Science Skills Progression

Subject:	Forces	Subject Leader/s:	Catherine Cutler, Sarah Rumbol, Maya Harwood, Catherine Cutler, Fiona McManus
-----------------	---------------	--------------------------	---

Aspect	Key Stage 1		Lower Key Stage 2		Upper Key Stage 2	
	End of Y1 expectation	End of Y2 expectation	End of Y3 expectation	End of Y4 expectation	End of Y5 expectation	End of Y6 expectation
Identifying & naming			Name a range of familiar daily activities which rely upon or are caused by forces and magnets	Identify how the magnetic north and south pole is different to the geographical north and south pole.	Identify and define the opposing forces that act upon objects moving through air, water or along a surface.	
Physical processes			Describe forces in action (pulling and pushing) and whether the force requires direct contact between objects or whether the force can act at distance (magnetic force).	Demonstrate using models or actions, the key forces in action during a given activity.	Describe the force of gravity what causes it and how the force of gravity changes (eg. If were standing on a different planet). Use of study skills to research the work of scientists such as Galileo and Newton.	
Phenomena			Explain the terms 'magnetic attraction' and 'repulsion' and 'magnetic poles', using a model for assistance.	Develop research skills, using secondary sources (e.g. finding out why aurora form at the north and south magnetic poles).	Demonstrate, using a model, how simple levers, gears and pulleys assist the movement of objects using less force.	
Testing			Make predictions, explaining thinking then test a range of magnets for their	Test whether any materials block magnetic attraction.	Make predictions, supported by scientific reasoning to test the effects of	

			strength and polarity.		friction on movement and distance travelled.	
Comparing			Compare how an object moves over surfaces made from different materials, making predictions and measuring the distance travelled.	Compare the speed in which objects fall to the ground through the same distance of air or water, using their knowledge of forces to explain the outcomes.	Compare the speed with which objects of different shapes and surface area fall through air or water, and explain the reason for any differences in terms of the forces acting on the objects.	
Classification			Sort and group materials into those that are magnetic and those that are not and identify patterns within the groups.		Classify and group forces based on their actions or whether they act directly or at distance.	