

Overview – Year 3 Summer 1 Forces and Magnets

Lesson	Objectives	Scientific enquiry	Equipment list
1. How do we make things move?	<ul style="list-style-type: none"> • Know what a force is • Understand how forces can affect objects • Investigate a force in nature 	Make a tornado Follow a simple practical procedure, observation, make conclusion based on evidence, evaluation and suggestions for further improvement	Plastic/ glass bottle, washing up liquid, glitter, food colouring
2. What are some contact forces?	<ul style="list-style-type: none"> • Know some examples of contact forces • Compare the advantages and disadvantages of friction • Investigate the force of friction on different surfaces 	Friction investigation Fair test, predictions, variables, pattern-seeking, repeats, averages, conclusion based on evidence, evaluation and suggestions for further improvement	Books, piece of wood, bubble wrap, carpet, ruler, toy car (other surfaces can be used instead)
3. What are some non-contact forces?	<ul style="list-style-type: none"> • Recall some non-contact forces • Describe the structure of a magnet • Investigate how magnets attract and repel objects at a distance 	Attracted or repelled? Fair test, prediction, variables, repeats, pattern-seeking, conclusion based on evidence, evaluation and suggestion for improvement	Magnets, wood, foil, paper, plastic sheet
4. Are all metals magnetic?	<ul style="list-style-type: none"> • Name the magnetic materials • Group materials as magnetic or non-magnetic • Develop an investigation to test magnetic materials 	Magnetic materials investigation Develop questions, prediction, identify and classify, conclusion based on	Magnets, 2p coin, foil, mirror, plastic sheet

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		evidence, evaluation and suggestions for further improvement	
5. Can you make a magnet stronger?	<ul style="list-style-type: none"> • Know some different types of magnets • Understand how the strength of a magnet can be changed • Investigate the strength of different magnets 	Investigation to test the strength of a magnet Develop questions, prediction, conclusion based on evidence, repeats, averages, evaluation and suggestions for further improvement	A4 paper, range of different types of magnet, `e.g. Horseshoe, bar, ball
6. Can magnets help us when we are lost?	<ul style="list-style-type: none"> • Describe the structure of a simple compass • Understand how a compass works • Make a compass 	Make a compass Follow a simple practical procedure, Observation	Magnet, needle, cork, bowl, water, compass