

Year 5 Forces			
UKS 2	Emerging (UKS2 children can...)	Expected (UKS2 children can...)	Exceeding (UKS2 children can...)
Work Scientifically	<ul style="list-style-type: none"> <li>ask relevant questions and using different types of scientific enquiries to answer them</li> <li>set up simple practical enquiries, comparative and fair tests</li> <li>make systematic and careful observations and , where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</li> </ul>	<ul style="list-style-type: none"> <li>plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</li> <li>use test results to make predictions to set up further comparative and fair tests</li> <li>take measurements, using a range of scientific equipment, with</li> <li>increasing accuracy and precision, taking repeat readings when appropriate</li> <li>record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs,</li> <li>report and present findings from enquiries, including conclusions, causal relationships and explanations results, explanations of and degree of trust in results, in oral and written forms such as displays and other presentations</li> <li>identify scientific evidence that has been used to support or refute ideas or arguments.</li> </ul>	<ul style="list-style-type: none"> <li>ask questions and develop a line of enquiry based on observations of the real world alongside prior knowledge and experience</li> <li>make predictions using scientific knowledge and understanding</li> <li>select, plan and carry out the most appropriate types of scientific enquiries to test predictions...</li> <li>make and record observations and measurements using a range of methods for different investigations; and evaluate the reliability of methods and suggest possible improvements</li> <li>present observations and data using appropriate methods, including tables and graphs</li> <li>interpret observations and data, including identifying patterns and using observations, measurements and data to draw conclusions</li> <li>present reasoned explanations, including data in relation to predictions and hypotheses</li> <li>evaluate data, showing awareness of potential sources of error</li> <li>identify further questions arising from results</li> </ul>
Plan			
Do			
Record			
Review	<ul style="list-style-type: none"> <li>gather, record, classify and present data in a variety of ways to help in answering questions</li> <li>record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</li> <li>report on findings from enquiries, include oral and written explanations, displays or presentations of results and conclusions</li> <li>use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</li> <li>identify differences, similarities or changes related to simple scientific ideas and processes</li> <li>use straightforward scientific evidence to answer questions or to support their findings.</li> </ul>		
Forces	<ul style="list-style-type: none"> <li>compare how things move on different surfaces</li> <li>notice that some forces need contact between two objects but magnetic forces act at a distance</li> </ul>	<ul style="list-style-type: none"> <li>explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object</li> <li>identify the effect of air resistance, water resistance and friction, that act between moving surfaces</li> <li>recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect</li> </ul>	<ul style="list-style-type: none"> <li>describe forces as pushes or pulls, arising from the interaction between two objects</li> <li>identify non-contact forces: gravity forces acting at a distance on earth and in space, forces between magnets ...</li> <li>use force arrows in diagrams, adding forces in one dimension, balanced and unbalanced forces</li> <li>explain forces: associated with deforming objects; stretching and squashing-springs; with rubbing and friction between surfaces, with pushing things out of the way; resistance to motion of air and water</li> <li>describe forces being needed to cause an object to stop or start moving, or to change their speed or direction of motion</li> <li>know forces can be measured in newtons...</li> </ul>