

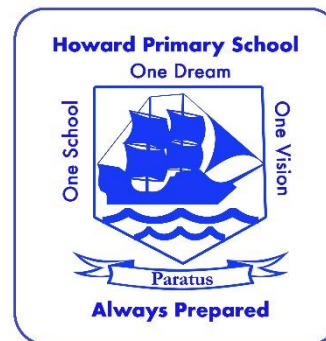
Science Skills Map

KS1

Year Group	Key Skills			
	To generate ideas and Use evidence in science	To develop investigative skills Planning	To obtain and present evidence	To consider evidence and evaluate findings / processes involved.
	Use of correct scientific vocabulary.			
1	<ul style="list-style-type: none"> Understand the scientific use of some simple vocabulary (before/ after/ bumpy/ grow/ eat/ move). Communicate ideas and observations. Collect evidence to try to answer a question. 	<ul style="list-style-type: none"> Make some contribution to planning. Ask simple questions. Test ideas suggested to them and say what they think will happen. (prediction) 	<ul style="list-style-type: none"> Make observations and explain why some things occur. Make simple records of findings. Make observations using simple equipment and measure using a variety of standard and non-standard units. 	<ul style="list-style-type: none"> Talk about changes. Know about similarities and differences. Observe patterns or regular changes. Make simple comparisons and groupings that relate to differences and similarities between living things and objects.

			<ul style="list-style-type: none"> • Present findings in a variety of different ways. 	<ul style="list-style-type: none"> • Say what their observations have shown, and whether it was what they expected. • Draw simple conclusions and explain what they did. • Reflect and evaluate processes.
2	<ul style="list-style-type: none"> • Use observations and ideas to suggest answers to questions. • Use results (scientific observations) to draw simple conclusions. 	<ul style="list-style-type: none"> • Ask simple questions. • Suggest what they think might happen. • Discuss whether comparisons and tests are fair or unfair. • Begin to think about and choose apparatus. 	<ul style="list-style-type: none"> • Observe closely, using simple equipment. • Perform simple tests. • Gather and record data to help in answering questions. • Measure using a variety of standard and non-standard units. • Record in a variety of different ways including tables, labelled drawings and simple graphs. using simple scientific language. • Begin to discuss and understand 	<ul style="list-style-type: none"> • Identify and classify. • Make simple comparisons, identifying similarities and differences. • Explain what the results show. • Use what they know to explain what was found out and to draw conclusions. • Explain what they did. • Draw conclusions from results and begin to use scientific knowledge to suggest explanations for them. • Make generalisations and begin to identify simple patterns in results presented in tables.

			the need for repeated measurements.	<ul style="list-style-type: none">• Reflect and evaluate.
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Science Skills Map

KS2

Key Phase	Key Skills				
	To question	To observe	To investigate	To record	To conclude
3 and 4 (LKS2)	<ul style="list-style-type: none"> Ask their own questions about the scientific phenomena that they are studying Select the most appropriate ways to answer these questions, recognising and controlling variables where necessary. Find answers to questions posed by teachers using a wide range of secondary sources. 	<ul style="list-style-type: none"> Make systematic and careful observations using a range of equipment. Repeat readings where appropriate. Measure length, time, temperature and capacity using standard units. Use evidence to suggest values for other items tested using the same method. 	<ul style="list-style-type: none"> Set up simple, practical enquiries, comparative and fair tests. Select from a range of equipment to answer questions generated by the teacher or themselves. Follow a plan to carry out an enquiry. Make suggestions on how to extend an enquiry based on data and observations. 	<ul style="list-style-type: none"> Record observations using photos, videos, pictures, labelled diagrams or writing. Record measurements using tables, tally charts and bar charts. Record classifications using tables, Venn diagrams, Carroll diagrams. Sometimes make own scientific decisions on how to record data. Supported to present the same data in different ways in order to help answer a question. Communicate findings both orally and in writing using 	<ul style="list-style-type: none"> Draw simple conclusions from results. Suggest improvements to investigations and evaluate methods. Identify differences, similarities or changes to simple scientific processes. Use scientific evidence to support findings. Answer their own and other's questions based on observations they have made, measurements taken or information gained from secondary sources. Interpret data to generate simple comparative statements.

				appropriate scientific vocabulary.	<ul style="list-style-type: none"> • Begin to identify naturally occurring patterns.
5 and 6 (UKS2)	<ul style="list-style-type: none"> • Ask their own questions about the scientific phenomena that they are studying, stimulated by scientific experience. • Ask further questions following an enquiry. • Select the most appropriate ways to answer these questions, recognising and controlling variables where necessary • Find things out using a wide range of secondary sources 	<ul style="list-style-type: none"> • Make systematic and careful observations using a range of equipment. • Measure accurately using standard units. • Select equipment to give the most precise results with a suitable scale. • Decide on adaptations to an enquiry during the process, e.g. increasing sample size, adjusting observation period, repeating readings. 	<ul style="list-style-type: none"> • Set up simple, practical enquiries, comparative and fair tests. • Engage in practical enquiry to answer questions. • Carry out fair tests, recognising and controlling variables. • Make scientific decisions on what observations and measurements to make, justifying responses. • Use scientific knowledge gained during enquiry to make predictions that can be investigated using comparative and fair tests. 	<ul style="list-style-type: none"> • Make individual scientific decisions on how to record and present evidence. • Record observations using annotate photographs, videos, labelled diagrams, observational drawings, labelled scientific diagrams or writing. • Record measurements using tables, tally charts, bar charts, line graphs and scatter graphs. • Record classifications using tables, Venn diagrams, Carroll diagrams and classification keys. • Communicate findings to an audience using relevant scientific vocabulary and illustrations. 	<ul style="list-style-type: none"> • Draw conclusions from results and communicate in a variety of ways. • Suggest improvements to investigations and evaluate methods. • Identify differences, similarities or changes to simple scientific and processes. • Discuss whether other evidence supports or refutes conclusions. • Discuss how scientific ideas change due to new evidence and scientific understanding. • Evaluate the choice of method, the control of variables, precision and accuracy of measurement and the credibility of secondary sources used

