

Aspect P. of Study Skill/learning intention	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Asking questions	Ask questions to find out more and to check they understand what has been said to them Asks questions about aspects of their familiar world	Asks simple questions and recognises that they can be answered in different ways. Recognise the difference between a statement and a question Begins to shape questions using different question stems.	Asks simple questions and recognises that they can be answered in different ways. With support, suggest own questions that they might investigate.	Ask relevant questions and use different types of scientific enquiries to answer them. Asks questions independently and generate own ideas to explore through scientific enquiry.	Ask relevant questions and use different types of scientific enquiries to answer them. Asks questions and offers ideas for a range of scientific enquiry. With support, improves focus of question to clarify its scientific purpose.	Plan different types of scientific enquires to answer questions. Independently asks questions and offers ideas for scientific enquiry, which have a clear scientific purpose.	Plan different types of scientific enquires to answer questions. Recognises scientific questions that do not yet have definitive answers.
Planning detail	Explore the natural world around them. Generate a variety of ideas for testing (not always appropriate or realistic)	Asks simple questions and recognises that they can be answered in different ways. Decides which questions can be answered practically and which cannot. Suggests a next step, or a sequence of steps in a plan	Asks simple questions and recognises that they can be answered in different ways. Decides independently simple questions that could be answered practically and some that cannot.	Set up simple practical enquires, comparative and fair tests. Recognises when to answer a question by using a fair test method and when other methods might be needed. In a fair test, identifies what to keep the same and sometimes want to change the measure.	Set up simple practical enquires, comparative and fair tests. Knows when to answer a question by using a fair test method and when better evidence could be generated in other ways e.g. through a survey, diary, log or research. Sets up a fair test controlling variables, what to keep the same, what to change, measure or observe.	Plan different types of scientific enquires to answer questions, including recognising when to control variables where necessary. Identifies the most appropriate enquiry methods to use to generate evidence needed to solve problems and answer scientific questions. Plan familiar enquiry types in appropriate detail.	Plan different types of scientific enquires to answer questions, including recognising when to control variables where necessary. Selects methods to use to solve problems or answer questions, including a full range of enquiry methods, which are planned in detail.
Using equipment	Compare length, weight and capacity. Measure by direct comparison using simple vocabulary	Observe closely, using simple equipment. Begins to choose appropriate equipment to use to make observations	Observe closely, using simple equipment. Chooses appropriate equipment from a selection and follows instructions for using	Where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers	Where appropriate, take accurate measurements using standard units, using a range of equipment,	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat	Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking

	such as bigger and smaller	and follows simple instructions for using it correctly and safely.	it, sometimes working independently.	and data loggers. Selects from a wider range of equipment and know what to use in an investigation. Use basic equipment correctly, safely and with increasing accuracy.	including thermometers and data loggers. Uses a wide range of equipment such as thermometers and data loggers correctly, safely and accurately. Deals with most equipment difficulties independently before asking for help if necessary.	readings when appropriate. Selects the most appropriate equipment to use in a range of contexts and enquiries. Takes measurements using a range of science equipment with increasing accuracy and precision.	repeat readings when appropriate. Explains why particular pieces of equipment or information sources will provide better quality evidence.
Making observations	Describe what they see, hear and feel. Using senses to make observations of animals, plants and the world around them.	To identify and classify Perform simple tests. Use observations and ideas to suggest answers to questions Makes relevant observations in familiar contexts. With support, take some non-standard measurements.	To identify and classify Perform simple tests. Use observations and ideas to suggest answers to questions Makes relevant observations. Takes non-standard measurements. Begins to use basic equipment for measuring length or mass, in standard units.	Makes systematic and careful observations. Makes relevant observations throughout an investigation. Uses standard measuring equipment for quantities, such as volume and temperature.	Makes systematic and careful observations. Chooses to make a series of observations that will add to the evidence they collect whilst investigating. With support, takes accurate readings of measuring equipment, recognising when to repeat them.	With increasing accuracy and precision, take repeat readings when appropriate. Chooses to make a series of observations that will add to the quality of evidence they have collected while investigating.	With increasing accuracy and precision, take repeat readings when appropriate. Repeats sets of observations or measurements, where appropriate, selecting suitable ranges and intervals, to give sufficient depth of evidence.
Gathering, recording and presenting data	Return to and build on their previous learning, refining ideas and developing their ability to represent them Talk about objects and events and record through simple pictures/images.	Gather and record data to help answer questions. Use drawings and labels to present evidence. With support, uses prepared simple tables and charts, including ICT forms.	Gather and record data to help answer questions. Uses drawings and labels to present evidence. Uses prepared tables and block graphs, including ICT forms.	Gather, record, classify and present data in a variety of ways to help answer questions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. Gathers, records, classifies and presents	Gather, record, classify and present data in a variety of ways to help answer questions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. Selects the most appropriate way to	Records data and results of increasing complexity using scientific diagrams, classification keys, tables, bar and line graphs and models. With support, can record data and results of increasing complexity using a range of formats.	Records data and results of increasing complexity using scientific diagrams, classification keys, tables, bar and line graphs and models. Decides on the most appropriate formats to present sets of scientific data, such as using line graphs

				data in a variety of ways to help in answering questions. Sometimes creates own tables and bar charts, using ICT forms where possible. Interprets a line graph with support.	present evidence they have collected. Records findings using drawing, labelled diagrams, bar charts, tables and graphs, using ICT where appropriate, Uses simple scientific language to answer questions or to support their findings.	Communicates findings in written form, displays and uses other forms of presentation. Uses scientific language to communicate increasingly detailed analysis.	for continuous variables. Communicates findings in written form, across a range of genre, and uses multi-media and other forms of presentation.
Drawing conclusions	Articulate their ideas and thoughts in well-formed sentences. Using simple comparative statements to answer initial question simply.	Use observations and ideas to suggest answers to questions Describes simple observations of an object or objects of an event and with support, makes simple comparison.	Use observations and ideas to suggest answers to questions Describes what has happened, making comparisons where appropriate. With support, sequence results e.g. from smallest to largest.	Use results to draw simple conclusions Reports on findings from enquiries, including oral and written, through use of display or presentation. Makes a general statement about simple patterns they notice in a set of results.	Use results to draw simple conclusions Make a comparative statement, sometimes referring to the factors under investigation. Identifies differences, similarities, or changes related to simple scientific ideas and processes. Uses straightforward scientific evidence to answer questions or to support their findings.	Report and present findings from enquiries, including conclusions. Where appropriate, makes a comparative statement, describing relationships between factors being investigated. Use simple models to help describe scientific ideas.	Report and present findings from enquiries, including conclusions. Uses scientific evidence to answer questions or support findings. Draws valid conclusions that utilises more than one piece of supporting evidence.
Explaining evidence	Describe events in some detail. Answer how and why questions about their experience.	Use data to help answer questions. With support, recognises the links between cause and effect in simple, familiar situations.	Use data to help answer questions. Recognises the link between cause and effect in simple, familiar situations. Begins to notice simple patterns in results.	Use straightforward scientific evidence to answer questions or support their findings. Provides explanations for simple patterns in results, referring to everyday experiences when explaining reasoning.	Use straightforward scientific evidence to answer questions or support their findings. Relates explanations of patterns in results to scientific knowledge and understanding when explaining reasoning.	Identifies scientific evidence that has been used to support or refute ideas or arguments. Relates explanations of evidence gathered to scientific knowledge and understanding.	Identifies scientific evidence that has been used to support or refute ideas or arguments. Provides explanations for differences, repeated observations or measurements, identifying reasons

						Makes generalisations about what evidence seems to indicate.	for any anomalies noticed.
Evaluating outcomes		<p>Use observations and ideas to suggest answers to questions</p> <p>Reviews their work and with support, recognises some of the difficulties encountered.</p>	<p>Use observations and ideas to suggest answers to questions</p> <p>Reviews their work and recognises some of the difficulties encountered.</p> <p>With support, suggest how these might have been avoided.</p>	<p>Use results to make predictions for new values, suggest improvement and raise further questions.</p> <p>Identify differences, similarities or changes related to simple scientific ideas and processes</p> <p>Suggests how an enquiry might be improved.</p> <p>With support, recognises some of the limitations and significance of evidence.</p>	<p>Use results to make predictions for new values, suggest improvement and raise further questions.</p> <p>Identify differences, similarities or changes related to simple scientific ideas and processes.</p> <p>Suggest how much to trust results, identifying some of the limitations of evidence.</p> <p>Suggest new questions and predictions for setting up further tests.</p>	<p>Report and present findings from enquiries, including conclusions, casual relationships and explanations of a degree of trust in results, in oral and written forms such as displays and other presentations.</p> <p>Uses test results to make predictions to set up further comparative and fair tests.</p> <p>Recognises some of the limitations of their evidence and can suggest why is should not be trusted.</p> <p>Uses test results to set up further comparative tests.</p>	<p>Report and present findings from enquiries, including conclusions, casual relationships and explanations of a degree of trust in results, in oral and written forms such as displays and other presentations.</p> <p>Uses test results to make predictions to set up further comparative and fair tests.</p> <p>Evaluates the effectiveness of their working methods, making practical suggestions and improving them.</p>