




Working Scientifically	
Plan	Ask simple questions when prompted Suggest ways of answering a question
Do	Make relevant observations using simple equipment Conduct simple tests, with support Identify and classify with guidance
Record	Gather and record data
Review	Recognise findings Use their observations and ideas to suggest answers to simple questions
Vocabulary	Questions, answers, equipment, gather, measure, record, results, sort, group, test, explore, observe, compare, describe, similar/ities, different/ces, beaker, pipette, syringe

Year 1
Science Yearly Overview
working scientifically expectations

Intent	Implementation	Impact
<p>We have high ambitions for all pupils in Science. We deliver our curriculum through our five core principles:</p> <ul style="list-style-type: none"> We ask questions We explore and investigate We think scientifically We record scientifically We link learning to real life 	<p>Our curriculum is well sequenced and progressive building upon prior knowledge.</p> <p>We investigate scientifically with a <u>minimum of two practical investigations</u> per half term. These deliver scientific knowledge and foster the ability to work scientifically.</p>	<p>The result is a meaningful learning journey where the majority of pupils retain the powerful knowledge ensuring they are ready for the next stage in their learning journey.</p>

Year Group	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year 1	Everyday materials	Seasonal Changes: Autumn & winter	Animals including humans	Scientific Enquiry: Science Week	Plants	Seasonal changes: Spring to Summer
Working scientifically Assessment Focus	Do (observation)	Review (answer questions)	Record (classification)	Do & Record (gather)	Plan (suggest ways to do)	Record (data)

Science Learning Sequence				
 <p>Pre-unit assessment</p> <p>(KWL grid, quiz etc)</p>	Share knowledge organisers and learning journey checklists	<p>Lessons to deliver information on knowledge organisers through the learning journey</p> <p style="text-align: center;"><u>Must include 2x investigations</u></p>	<p>End of unit assessment</p> <p>(quiz, poster, KWL grid)</p>	<p>Summative teacher assessment</p> <p>& Skills assessment on Learning Journey Checklist and foundation tracker</p>
	Recap Prior knowledge			



Year 2
Science Yearly Overview
working scientifically expectations

Intent	Implementation	Impact
<p>We have high ambitions for all pupils in Science. We deliver our curriculum through our five core principles:</p> <ul style="list-style-type: none"> • We ask questions • We explore and investigate • We think scientifically • We record scientifically • We link learning to real life 	<p>Our curriculum is well sequenced and progressive building upon prior knowledge.</p> <p>We investigate scientifically with <u>a minimum of two practical investigations</u> per half term. These deliver scientific knowledge and foster the ability to work scientifically.</p>	<p>The result is a meaningful learning journey where the majority of pupils retain the powerful knowledge ensuring they are ready for the next stage in their learning journey.</p>

Plan	Ask simple questions Recognise that questions can be answered in different ways
Do	Observe closely, using simple equipment Perform simple tests Identify and classify
Record	Record and communicate their findings in a range of ways and begin to use simple scientific language Gather and record data to help answer questions
Review	Use their observations and ideas to suggest answers to simple questions

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Plan	Animals including humans	Scientific enquiry: Investigating	Everyday Materials and their uses.	Scientific enquiry: Science week	Plants	Living things and their habitats
Do	Record (flow diagrams)	Do (observation & ideas)	Do (use equipment and observe)	Do & Record (gather)	Plan (suggest ways to do)	Review (ideas)



Science Learning Sequence				
Pre-unit assessment (KWL grid, quiz etc)	Share knowledge organisers and learning journey checklists Recap Prior knowledge	Lessons to deliver information on knowledge organisers through the learning journey <u>Must include 2x investigations</u>	End of unit assessment (quiz, poster, KWL grid)	Summative teacher assessment & Skills assessment on Learning Journey Checklist and foundation tracker



Year 3
Science Yearly Overview
working scientifically expectations

Intent	Implementation	Impact
<p>We have high ambitions for all pupils in Science. We deliver our curriculum through our five core principles:</p> <ul style="list-style-type: none"> We ask questions We explore and investigate We think scientifically We record scientifically We link learning to real life 	<p>Our curriculum is well sequenced and progressive building upon prior knowledge.</p> <p>We investigate scientifically with <u>a minimum of two practical investigations</u> per half term. These deliver scientific knowledge and foster the ability to work scientifically.</p>	<p>The result is a meaningful learning journey where the majority of pupils retain the powerful knowledge ensuring they are ready for the next stage in their learning journey.</p>

Plan	Ask relevant questions when prompted Use different types of scientific enquiry to answer them. Set up simple and practical enquiries, comparative and fair tests with some support.
Do	Make systematic and careful observations, using simple equipment Use standard units when taking measurements
Record	With modelling and guidance, gather, record, classify and present data in a variety of ways to help to answer questions. With prompting, use various ways of recording, grouping and displaying evidence and suggest how findings may be tabulated
Review	With prompting, suggest conclusions from enquiries. Suggest how findings could be reported. Suggest possible improvements or further questions to investigate

Year 3: Working scientifically focus in practical work					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Rocks	Forces and Magnets	Light	Scientific enquiry (Science week)	Animals Including Humans	Plants
Review	Do (observation)	Plan	Do & Record (gather)	Record (classify)	Record (data)



Science Learning Sequence				
Pre-unit assessment (KWL grid, quiz etc)	Share knowledge organisers and learning journey checklists Recap Prior knowledge	Lessons to deliver information on knowledge organisers through the learning journey <u>Must include 2x investigations</u>	End of unit assessment (quiz, poster, KWL grid)	Summative teacher assessment & Skills assessment on Learning Journey Checklist and foundation tracker



Year 4

Science Yearly Overview

working scientifically expectations

Intent	Implementation	Impact
<p>We have high ambitions for all pupils in Science. We deliver our curriculum through our five core principles:</p> <ul style="list-style-type: none"> We ask questions We explore and investigate We think scientifically We record scientifically We link learning to real life 	<p>Our curriculum is well sequenced and progressive building upon prior knowledge.</p> <p>We investigate scientifically with <u>a minimum of two practical investigations</u> per half term. These deliver scientific knowledge and foster the ability to work scientifically.</p>	<p>The result is a meaningful learning journey where the majority of pupils retain the powerful knowledge ensuring they are ready for the next stage in their learning journey.</p>

Year 4	
Plan	Ask relevant questions. Use different types of scientific enquiries to answer their questions. Set up simple and practical enquiries, comparative and fair tests
Do	Make systematic and careful observations using a range of equipment, including thermometers and data loggers. Take accurate measurements using standard units, where appropriate
Record	Gather, record, classify and present data in a variety of ways to help to answer questions Record findings using simple scientific language, drawings and labelled diagrams Record findings using keys, bar charts, and tables.
Review	Report on findings from enquiries, including oral and written explanations, of results and conclusions Report on findings from enquiries using displays or presentations. Identify differences, similarities or changes related to simple scientific ideas and processes Use straightforward scientific evidence to answer questions or to support their findings. Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.

Year 4: Working scientifically focus in practical work					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Sound	States of Matter	Animals including humans	Science Week Working Scientifically	Living things and their habitats	Electricity
Review	Do (observation)	Record (classification)	Do & Record (gather)	Review	Plan



Science Learning Sequence				
Pre-unit assessment	Share knowledge organisers and learning journey checklists	Lessons to deliver information on knowledge organisers through the learning journey	End of unit assessment	Summative teacher assessment
(KWL grid, quiz etc)	Recap Prior knowledge	<u>Must include 2x investigations</u>	(quiz, poster, KWL grid)	& Skills assessment on Learning Journey Checklist and foundation tracker



Year 5

Science Yearly Overview

working scientifically expectations

Intent	Implementation	Impact
<p>We have high ambitions for all pupils in Science. We deliver our curriculum through our five core principles:</p> <ul style="list-style-type: none"> We ask questions We explore and investigate We think scientifically We record scientifically We link learning to real life 	<p>Our curriculum is well sequenced and progressive building upon prior knowledge.</p> <p>We investigate scientifically with a minimum of two practical investigations per half term. These deliver scientific knowledge and foster the ability to work scientifically.</p>	<p>The result is a meaningful learning journey where the majority of pupils retain the powerful knowledge ensuring they are ready for the next stage in their learning journey.</p>

Year 5
<p>Plan</p> <p>Plan different types of scientific enquiries to answer questions. With prompting, recognise and control variables where necessary</p>
<p>Do</p> <p>Select, with prompting, and use appropriate equipment to take readings Take precise measurements using standard units Begin to understand the need for repeat readings</p>
<p>Record</p> <p>Take and process repeat readings Record data and results. Record data using labelled diagrams, keys, tables and charts Use line graphs to record data</p>
<p>Review</p> <p>Report and present findings from enquiries, including conclusions and, with prompting, suggest causal relationships With support, present findings from enquiries orally and in writing Suggest further comparative or fair tests</p>

Year 5: Working scientifically focus in practical work					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Forces	Living things and their habitats	Properties and changes of materials	Working Scientifically Investigations 'awe & wonder'	Earth and Space	Animals including humans
Record (data)	Review	Plan	Do & Record (gather)	Review (written sources)	Review

Science Learning Sequence				
Pre-unit assessment	Share knowledge organisers and learning journey checklists	Lessons to deliver information on knowledge organisers through the learning journey		End of unit assessment
(KWL grid, quiz etc)	Recap Prior knowledge	<u>Must include 2x investigations</u>		(quiz, poster, KWL grid)
				Summative teacher assessment & Skills assessment on Learning Journey Checklist and foundation tracker

Year 6	
Plan	Plan different types of scientific enquiries to answer questions. Recognise and control variables where necessary.
Do	Use a range of scientific equipment to take measurements. Take measurements with increasing accuracy and precision. Take repeat readings when appropriate.
Record	Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, bar charts and line graphs.
Review	Report and present findings from enquiries, including conclusions and causal relationships. Report and presents findings from enquiries in oral and written forms such as displays and other presentation. Report and present findings from enquiries, including explanations of, and degree of, trust in results. Identify scientific evidence that has been used to support or refute ideas or arguments. Use test results to make predictions to set up further comparative and fair tests.



Year 6
Science Yearly Overview
working scientifically expectations

Intent	Implementation	Impact
<p>We have high ambitions for all pupils in Science. We deliver our curriculum through our five core principles:</p> <ul style="list-style-type: none"> We ask questions We explore and investigate We think scientifically We record scientifically We link learning to real life 	<p>Our curriculum is well sequenced and progressive building upon prior knowledge.</p> <p>We investigate scientifically with a <u>minimum of two practical investigations</u> per half term. These deliver scientific knowledge and foster the ability to work scientifically.</p>	<p>The result is a meaningful learning journey where the majority of pupils retain the powerful knowledge ensuring they are ready for the next stage in their learning journey.</p>

Year 6: Working scientifically focus in practical work					
Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Light	Electricity	Evolution and inheritance Scientific Enquiry: Science Week	Scientific Enquiry: Science Week	Animals including humans	Living things and their habitats including Micro-organisms
Plan	Do	Review	Do & Record (gather)	Record (classify)	Record (data / graphs)

Science Learning Sequence				
Pre-unit assessment	Share knowledge organisers and learning journey checklists	Lessons to deliver information on knowledge organisers through the learning journey	End of unit assessment	Summative teacher assessment
(KWL grid, quiz etc)	Recap Prior knowledge	<u>Must include 2x investigations</u>	(quiz, poster, KWL grid)	& Skills assessment on Learning Journey Checklist and foundation tracker