National Curriculum Science Progression – Working Scientifically

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
	Without	Asking simple	Asking simple	Ask some relevant questions	Ask relevant questions and use	Begin to plan different types of	Plan different types of scientific
	prompting	questions about	questions about the	and use different types of	different types of scientific	scientific enquiries to answer	enquiries to answer questions, including
	ask a few	the world around	world around us.	scientific enquiries to answer	enquiries to answer them.	questions, including recognising and	recognising and controlling variables
	simple	us.		them.		controlling variables where	where necessary.
	questions		Recognise that they		Explore everyday phenomena and	necessary.	
	about the	Begin to recognise	can be answered in	Begin to explore everyday	the relationships between living		Explore and talk about ideas, ask their
	world around	that they can be	different ways	phenomena and the	things and familiar environments.	Begin to explore and talk about	own questions about scientific
	us.	answered in		relationships between living		ideas, ask their own questions	phenomena, analyse functions,
		different ways		things and familiar	Begin to develop their ideas	about scientific phenomena,	relationships and interactions more
				environments.	about functions, relationships and	analyse functions, relationships and	systematically.
					interactions.	interactions more systematically.	
50				Begin to develop their ideas			Begin to recognise more abstract ideas
- E				about functions, relationships	Raise their own questions about	Begin to recognise some more	and begin to recognise how these ideas
in di				and interactions.	the world around them.	abstract ideas and begin to	help them to understand how the world
ŭ.						recognise how these ideas help	operates.
Questioning and Enquiring Planning				Begin to raise their own	Make some decisions about	them to understand how the world	
ing and E Planning				questions about the world	which types of enquiry will be the	operates.	Recognise scientific ideas change and
ing Pla				around them.	best way of answering questions		develop over time.
no					including observing changes over	Begin to recognise some scientific	
sti				Begin to make some decisions	time, noticing patterns, grouping	ideas change and develop over	Select the most appropriate ways to
ang				about which types of enquiry	and classifying, carrying out	time.	answer science questions using differer
0				will be the best way of	simple comparative and fair tests,		types of scientific enquiry (including
				answering questions including	finding things out using	Begin to select the most	observing changes over different period
				observing changes over time,	secondary sources.	appropriate ways to answer science	of time, noticing patterns, grouping and
				noticing patterns, grouping and		questions using different types of	classifying, carrying out comparative an
				classifying, carrying out simple		scientific enquiry (including	fair tests and finding things out using a
				comparative and fair tests,		observing changes over different	wide range of secondary sources of
				finding things out using		periods of time, noticing patterns,	information.)
				secondary sources.		grouping and classifying, carrying	
						out comparative and fair tests and	
						finding things out using a wide	
						range of secondary sources of	
						information.)	

	With support,	Begin to observe	Observe closely,	Begin to make systematic and	Make systematic and careful	Begin to take measurements, using	Take measurements, using a range of
	begin to	closely, using	using simple	careful observations and,	observations and, where	a range of scientific equipment,	scientific equipment, with increasing
	observe	simple	equipment.	where appropriate, take	appropriate, take accurate	with increasing accuracy and	accuracy and precision, taking repeat
	closely, using	equipment.	equipment.	accurate measurements using	measurements using standard	precision, taking repeat readings	readings where appropriate.
		equipment.	Use observations	0	0		readings where appropriate.
	simple	Liss strends		standard units, using a range of	units, using a range of equipment.	where appropriate.	
	equipment.	Use simple	and ideas to suggest	equipment, including			Identify patterns that might be found in
		observations and	answers to	thermometers and data	Begin to look for naturally	Begin to identify patterns that might	the natural environment.
		ideas to suggest	questions.	loggers.	occurring patterns and	be found in the natural	
ല		answers to			relationships and decide what	environment.	Make my own decisions about what
kir		questions.	To observe changes	Begin to look for naturally	data to collect to identify them.	- - - - - - - - - -	observations to make, what
See			over time and, with	occurring patterns and		Begin to make my own decisions	measurements to use and how long to
E.		To observe simple	guidance, begin to	relationships and decide what	Help to make decisions about	about what observations to make,	make them for and whether to repeat
ter		changes over time	notice patterns and	data to collect to identify them.	what observations to make, how	what measurements to use and	them.
bat		and, with	relationships.		long to make them for and the	how long to make them for and	
ЧР		guidance, begin to		Help to make some decisions	type of simple equipment that	whether to repeat them.	Choose the most appropriate equipment
an		notice patterns	To say what I am	about what observations to	might be used.		and explain how to use it accurately.
вu		and relationships.	looking for and what	make, how long to make them		Choose the most appropriate	
uri			I am measuring.	for and the type of simple	Learn to use new equipment	equipment and explain how to use	I can interpret data and find patterns.
sas		To say what I am		equipment that might be used.	appropriately.	it accurately.	
Ň		looking for and	To know how to use				Select equipment on my own.
υð		what I am	simple equipment	Begin to choose from a	I can see a pattern in my results.	Begin to interpret data and find	
vin		measuring.	safely.	selection of equipment.		patterns.	I can make a set of observations and say
Observing, Measuring and Pattern Seeking				Learn to use some new	I can choose from a selection of		what the interval and range are.
ş		To begin to learn	Use simple	equipment appropriately.	equipment.	Select equipment on my own.	
U		how to use simple	measurements and				Accurate and precise measurements – N,
		equipment safely.	equipment with	Begin to see a pattern in my	I can observe and measure	I can make a set of observations	g, kg, mm, cm, mins, seconds, cm²V,
			increasing	results.	accurately using standard units	and say what the interval and range	km/h, m per sec, m/ sec Graphs – pie,
		Use some simple	independence.		including time in minutes and	are.	line, bar
		measurements		Begin to observe and measure	seconds.		
		and equipment		accurately using standard units		Begin to take accurate and precise	
		with support.		including time in minutes and		measurements – N, g, kg, mm, cm,	
				seconds, reading cm, m, cl, l,		mins, seconds, cm²V, km/h, m per	
				°C.		sec, m/ sec Graphs – pie, line	
	To begin to	Perform simple	Perform simple	Set up some simple practical	Set up simple practical enquiries,	Begin to use test results to make	Use test results to make predictions to
	discuss my	tests with support.	tests.	enquiries, comparative and fair	comparative and fair tests.	predictions to set up further	set up further comparative and fair tests.
	ideas about			tests.		comparative and fair tests.	
	how to find	To begin to	To discuss my ideas		Recognise when a simple fair test		Recognise when and how to set up
b0	things out.	discuss my ideas	about how to find	Begin to recognise when a	is necessary and help to decide	Begin to recognise when and how	comparative and fair tests and explain
Investigating		about how to find	things out.	simple fair test is necessary and	how to set it up.	to set up comparative and fair tests	which variables need to be controlled
gat		things out.		help to decide how to set it up.		and explain which variables need to	and why.
sti			To say what		I can think of more than one	be controlled and why.	
Ne		To begin to say	happened in my	Begin to think of more than one	variable factor.	,	Suggest improvements to my method
<u> </u>		what happened in	investigation.	variable factor.		Begin to suggest improvements to	and give reasons.
		my/our	J			my method and give reasons.	~
		investigation				,	Decide when it is appropriate to do a fair
		(work as a				Begin to decide when it is	test.
		class/group).				appropriate to do a fair test.	
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	Gather and	Gather and record	Gather and record	Gather, record, and begin to	Gather, record, classify and	Begin to record data and results of	Record data and results of increasing
	record data	data with some	data to help in	classify and present data in a	present data in a variety of ways	increasing complexity using	complexity using scientific diagrams and
	with adult	adult support, to	answering	variety of ways to help in	to help in answering questions.	scientific diagrams and labels,	labels, classification keys, tables and bar
	support, to	help in answering	questions.	answering questions.		classification keys, tables and bar	and line graphs.
	help in	questions.			Record findings using simple	and line graphs.	
Sa	answering		Record simple data.	Begin to record findings using	scientific language, drawings,		Report and present findings from
din	questions.	Begin to record		simple scientific language,	labelled diagrams, keys, bar	Begin to report and present findings	enquiries.
i		simple data.	Record and	drawings, labelled diagrams,	charts and tables.	from enquiries.	
60			communicate their	keys, bar charts and tables.			Decide how to record data from a choice
ti		Begin to record	findings in a range of		Report on findings from	Begin to decide how to record data	of familiar approaches.
Do la		and communicate	ways.	Begin to report on findings	enquiries, including oral and	from a choice of familiar	
e de		their findings in a		from enquiries, including oral	written explanations, displays or	approaches.	I can choose how best to present data.
p		range of ways.	I can show my	and written explanations,	presentations of results and		
an			results in a table	displays or presentations of	conclusions.	Begin to choose how best to	
B L L L L L		As part of the	that my teacher has	results and conclusions.		present data.	
ġ		class I can show	provided.		Use notes, simple tables and		
Recording and Reporting Findings		my results in a		Begin to use notes, simple	standard units and help to decide		
R		simple table that		tables and standard units and	how to record and analyse their		
		my teacher has		help to decide how to record	data.		
		provided.		and analyse their data.			
					I can record results in tables and		
				Begin to record results in tables	bar charts.		
				and bar charts.			
	Begin to use	Use some simple	Use simple scientific	Begin to use some scientific	To begin to use relevant scientific	I am beginning to read, spell and	Read, spell and pronounce scientific
	some science	scientific	language and some	language to talk and, later,	language to discuss their ideas	pronounce scientific vocabulary	vocabulary correctly.
	words.	language.	science words to	write about what they have	and communicate my findings in	correctly.	
			talk about what they	found out.	ways that are appropriate for		Use relevant scientific language. And
		Begin to use some	have found out.		different audiences.	I am beginning to use relevant	illustrations to discuss, communicate
>		science words.		To read and spell scientific		scientific language and illustrations	and justify scientific ideas.
lar			To read and spell	vocabulary correctly and	Use some scientific language to	to discuss, communicate and justify	
Vocabulary			scientific vocabulary	consistently with my growing	talk and, later, write about what I	scientific ideas.	Can confidently use a range of
20			consistent with my	word reading and spelling	have found out.		scientific vocabulary.
Š			increasing word	knowledge.			
			reading and spelling	-	To read and spell scientific		
			knowledge.		vocabulary correctly and		
			0		consistently with my growing		
					word reading and spelling		
					knowledge.		
	I	1			in o moder	1	

	Identify and	Identify and	Identify and classify.	Begin to identify differences,	Identify differences, similarities or	Begin to use and develop keys and	Use and develop keys and other
b0	classify simple	classify with some		similarities or changes related	changes related to simple	other information records to	information records to identify, classify
, ing	things with	support.	Observe and	to simple scientific ideas and	scientific ideas and processes.	identify, classify and describe living	and describe living things and materials.
sif	support.		identify, compare	processes.		things and materials.	
		To begin to	and describe.	• • • • • • • • • • • •	Talk about criteria for grouping,		
o o		observe and	Li standa (Begin to talk about criteria for	sorting and classifying and use		
an		identify, compare and describe.	Use simple features to compare objects,	grouping, sorting and classifying and use simple keys.	simple keys.		
Grouping and Classifying		and describe.	materials and living	classifying and use simple keys.	Compare and group according to		
dno		To begin to use	things and, with	Begin to compare and group	behaviour or properties, based on		
5		simple features to	help, decide how to	according to behaviour or	testing.		
		compare objects,	sort and group	properties, based on testing.	6		
ldentifying,		materials and	them.				
uti.		living things and,					
de		with help, decide					
_		how to sort and					
 		group them.					
	To begin to	As a class or	Use simple	Begin to recognise when and	Begin to recognise when and how	Begin to recognise which secondary	Recognise which secondary sources will
	find information	group, begin to use simple	secondary sources to find answers.	how secondary sources might help to answer questions that	secondary sources might help to answer questions that cannot be	sources will be most useful to research their ideas.	be most useful to research their ideas.
	to help me	secondary sources	to find answers.	cannot be answered through	answered through practical	research then lueas.	
	from books	to find answers.	Can find information	practical investigations.	investigations.		
с	and		to help me from	procession in congationer			
ear	computers	As part of a class	books and				
Research	with help.	or group, begin to	computers with				
_		find information	help.				
		to help me from					
		books and					
		computers with					
		help.					

Conclusions	Begin to talk about what they have found out and how they found it out.	Begin to talk about what I have found out and how I found it out. To begin to say what happened in the investigation. To begin to say whether I was surprised at the results or not.	Talk about what I have found out and how I found it out. To say what happened in my investigation. To say whether I was surprised at the results or not. To say what I would change about my investigation.	I am beginning to use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. I am beginning to use straightforward scientific evidence to answer questions or to support their findings. With help , I am beginning to look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions. With support , I am beginning to identify new questions arising from the data, make new predictions and find ways of improving what they have already done. I am beginning to say how I could make it better.	Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. Use straightforward scientific evidence to answer questions or to support their findings. With help , look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions. With support , identify new questions arising from the data, make new predictions and find ways of improving what they have already done. I can say how I could make it better.	I am beginning to report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations. Begin to identify scientific evidence that has been used to support or refute ideas or arguments. Begin to draw conclusions based on their data and observations, use evidence to justify their ideas, use scientific knowledge and understanding to explain their findings. Begin to use test results to make predictions to set up further comparatives and fair tests.	Reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations. Identify scientific evidence that has been used to support or refute ideas or arguments. Draw conclusions based on their data and observations, use evidence to justify their ideas, use scientific knowledge and understanding to explain their findings. Use test results to make predictions to set up further comparatives and fair tests. Use their results to identify when further tests and observations are needed.
Understanding	With support, can begin to talk about how science helps us in our daily lives eg. torches and lights help us see when it is dark.	Can begin to talk about how science helps us in our daily lives. I am beginning to understand science can sometimes be dangerous.	Can talk about how science helps us in our daily lives.	Begin to know which things in science have made our lives better.	Knows which things in science have made our lives better.	I am beginning to talk about how scientific ideas have changed over time. I am beginning to explain the positive and negative effects of scientific development. I am beginning to see how science is useful in everyday life.	Can talk about how scientific ideas have changed over time. Can explain the positive and negative effects of scientific development. Can see how science is useful in everyday life.