

	Progression in Working Scientifically								
	Year 1 (KS1 skills)	Year 2 (KS1 skills)	Year 3 (Lower KS2	Year 4 (Lower KS2	Year 5 (Upper KS2	Year 6 (Upper KS2			
			skills)	skills)	skills)	skills)			
Working Scientifically	To use the following practical scientific methods, processes and skills (adult support may be needed)	To use the following practical scientific methods, processes and skills with increasing confidence	To use the following practical scientific methods, processes and skills –	To use the following practical scientific methods, processes and skills –	To use the following practical scientific methods, processes and skills –	To use the following practical scientific methods, processes and skills –			
Questioning and enquiring Planning	Ask simple questions about the world around us.  Begin to recognise that they can be answered in different ways (different types of enquiry including - observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative tests, finding things out from secondary sources).  I can ask a few simple questions about the world around us.  I can begin to use some different types of enquiry to answer questions	Ask questions about the world around us.  Recognise that they can be answered in different ways ( different types of enquiry including - observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative tests, finding things out from secondary sources).  I can ask simple questions about the world around us.  I can begin to use different types of enquiry to answer questions.	Ask some relevant questions and use different types of scientific enquiries to answer them.  Begin to explore everyday phenomena and the relationships between living things and familiar environments.  Begin to develop their ideas about functions, relationships and interactions.  Begin to raise their own questions about the world around them.  Begin to make some decisions about which types of enquiry will be the best way of answering questions including observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative and fair tests, finding things out using secondary sources.  I can ask some relevant questions about the world around us.  I can use some different types of scientific enquiry to answer questions.  I am beginning to decide which type of enquiry is best to answer my question.	Ask relevant questions and use different types of scientific enquiries to answer them.  Explore everyday phenomena and the relationships between living things and familiar environments.  Begin to develop their ideas about functions, relationships and interactions.  Raise their own questions about the world around them.  Make some decisions about which types of enquiry will be the best way of answering questions including observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative and fair tests, finding things out using secondary sources.  I can ask relevant questions about the world around us.  I can use different types of scientific enquiry to answer questions.  I am beginning to decide which type of enquiry is best to answer my question.	Begin to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.  Begin to explore and talk about ideas, ask their own questions about scientific phenomena, analyse functions, relationships and interactions more systematically.  Begin to recognise some more abstract ideas and begin to recognise how these ideas help them to understand how the world operates.  Begin to recognise scientific ideas change and develop over time.  Begin to select the most appropriate ways to answer science questions using different types of scientific enquiry (including observing changes over different periods of time, noticing patterns, grouping and classifying, carrying out comparative and fair tests and finding things out using a wide range of secondary sources of information.)  I am beginning to explore ideas and ask my own questions about scientific phenomena.  I am beginning to plan different types of scientific enquiry to answer questions.  I am beginning to decide which variables to control.	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.  Explore and talk about ideas, ask their own questions about scientific phenomena, analyse functions, relationships and interactions more systematically.  Begin to recognise more abstract ideas and begin to recognise how these ideas help them to understand how the world operates.  Begin to recognise scientific ideas change and develop over time.  Select the most appropriate ways to answer science questions using different types of scientific enquiry (including observing changes over different periods of time, noticing patterns, grouping and classifying, carrying out comparative and fair tests and finding things out using a wide range of secondary sources of information.)  I can explore ideas and ask my own questions about scientific phenomena.  I can plan different types of scientific enquiry to answer questions.  I can decide which variables to control.			



		1 1 2 8 1 2 2 1 2	n in Working S	<u> </u>		
	Year 1 (KS1 skills)	Year 2 (KS1 skills)	Year 3 (Lower KS2	Year 4 (Lower KS2	Year 5 (Upper KS2	Year 6 (Upper KS2
			skills)	skills)	skills)	skills)
		Observe closely, using simple	Begin to make systematic and	Make systematic and careful	Begin to take measurements,	Take measurements, using a
		equipment.	careful observations and, where	observations and, where	using a range of scientific	range of scientific equipment,
			appropriate, take accurate	appropriate, take accurate	equipment, with increasing	with increasing accuracy and
		Use <b>observations and ideas</b> to	measurements using standard	measurements using standard	accuracy and precision, taking	precision, taking repeat reading
		suggest answers to questions.	units, using a range of equipment, including thermometers and data	units, using a range of equipment, including thermometers and data	repeat readings where appropriate.	where appropriate.
		To observe changes over time	loggers.	loggers.		Identify patterns that might be
		and, with guidance, begin to			Begin to identify patterns that	found in the natural environme
		notice patterns and relationships.	Begin to look for naturally	Begin to look for naturally	might be found in the natural	
			occurring patterns and	occurring patterns and	environment.	Make their own decisions about
		To say what I am looking for and	relationships and decide what	relationships and decide what		what observations to make, wh
		what I am measuring.	data to collect to identify them.	data to collect to identify them.	Begin to make their own decisions	measurements to use and how
		To know how to use simple	Help to make decisions about what observations to make, how	Help to make decisions about	about what observations to make, what measurements to use and	long to make them for and whether to repeat them. Choose
		equipment safely.	long to make them for and the	what observations to make, how	how long to make them for and	the most appropriate equipmer
		equipment surely.	type of simple equipment that	long to make them for and the	whether to repeat them. Choose	and explain how to use it
		Use simple measurements and	might be used.	type of simple equipment that	the most appropriate equipment	accurately.
		equipment with increasing		might be used.	and explain how to use it	
		independence (e.g. hand lenses	Learn to use some new		accurately.	Can interpret data and find
		and egg timers).	equipment appropriately (eg data	Learn to use new equipment		patterns. Select equipment on
Observing and		Design to any super forms of a	loggers). Begin to see a pattern in	appropriately (eg data loggers).	Begin to interpret data and find	own. Can make a set of
measuring Pattern		Begin to progress from non- standard units, reading mm, cm,	my results.	Can see a pattern in my results.	patterns.	observations and say what the interval and range are.
•		m, ml, l, °C	Begin to choose from a selection	Can see a pattern in my results.	Select equipment on my own. Can	interval and range are.
seeking		111, 1111, 1, C	of equipment.	Can choose from a selection of	make a set of observations and	Accurate and precise
C		I can observe changes over time.		equipment.	say what the interval and range	measurements – N, g, kg, mm,
			Begin to observe and measure		are.	cm, mins, seconds, cm <sup>2</sup> V, km/h,
		I can say what I am looking for	accurately using standard units	Can observe and measure		per sec, m/ sec
		and what I am measuring.	including time in minutes and	accurately using standard units	Begin to take accurate and precise	Graphs – pie, line, bar (Year 6)
		Lancoura de la constanta de la	seconds.	including time in minutes and	measurements – N, g, kg, mm,	t and another an armstall and an artist
		I can measure with nonstandard units and can begin to use simple	I can make systematic and careful	seconds.	cm, mins, seconds, cm <sup>2</sup> V, km/h, m per sec, m/ sec	measurements.
		standard units e.g., mm, cm, m,	observations.	I can make systematic and careful	Graphs – pie, line	measurements.
		ml, l, ºC		observations.	Graphis pie, inie	I can decide what to observe, he
			I can decide what to observe and		I can make accurate and precise	long to observe for and whether
		I can use simple equipment e.g.	how long to collect observations.	I can decide what to observe and	measurements.	to repeat them.
		hand lenses, egg timers.		how long to collect observations.		
			I can take accurate measurements		I can decide what to observe, how	I can take accurate and precise
		I am beginning to notice patterns.	using standard units eg. mm, cm,	I can take accurate measurements	long to observe for and whether	measurements using standard
			m, ml, l, ºC, seconds, minutes.	using standard units e.g. mm, cm, m, ml, l, °C, seconds, minutes.	to repeat them.	units N, g, kg, mm, cm, mins, seconds, cm <sup>2</sup> V, km/h, m per sec
			I can decide which equipment to	, iii, i, c, seconds, iiiiides.	I can take accurate and precise	m/ sec.
			use and can use new equipment	I can decide which equipment to	measurements using standard	, , , , , , , , , , , , , , , , , , , ,
			eg. data loggers.	use and can use new equipment	units N, g, kg, mm, cm, mins,	I can select equipment on my ov
				e.g. data loggers.	seconds, cm <sup>2</sup> V, km/h, m per sec,	and can explain how to use it
			I can look for patterns and		m/ sec.	accurately.
			relationships.	I can look for patterns and		
				relationships.	I can select equipment on my own	
					and can explain how to use it accurately.	



Progression in Working Scientifically								
	Year 1 (KS1 skills)	Year 2 (KS1 skills)	Year 3 (Lower KS2	Year 4 (Lower KS2	Year 5 (Upper KS2	Year 6 (Upper KS2		
			skills)	skills)	skills)	skills)		
	Perform simple tests with	Perform simple tests.	Set up some simple practical	Set up simple practical enquiries,	Begin to use test results to make	Use test results to make		
	support.	To discuss my ideas about how to	enquiries, comparative and fair tests.	comparative and fair tests.	predictions to set up further comparative and fair tests.	predictions to set up further comparative and fair tests.		
	To begin to discuss my ideas about how to find things out.	find things out.  To say what happened in my	Begin to recognise when a simple fair test is necessary and help to	Recognise when a simple fair test is necessary and help to decide how to set it up.	Begin to recognise when and how to set up comparative and fair	Recognise when and how to set up comparative and fair tests and		
	To begin to say what happened in my investigation.	investigation.	decide how to set it up.	Can think of more than one	tests and explain which variables need to be controlled and why.	explain which variables need to be controlled and why.		
nyoctigating	I can begin to perform simple	I can perform simple tests.	Begin to think of more than one variable factor.	variable factor.	Begin to suggest improvements to	Suggest improvements to my		
nvestigating	tests.	I can discuss my ideas.	I can set up some simple practical	I can set up simple practical enquiries. Including comparative	my method and give reasons.	method and give reasons.		
	I can begin to discuss my ideas.	I can say what happened in my investigation.	enquiries. Including comparative and fair tests.	and fair tests.	Begin to decide when it is appropriate to do a fair test.	Decide when it is appropriate to do a fair test.		
	I can begin to say what happened			I can help decide which variables to keep the same and which to	Loop constitues set up a govern	Loop ook up a game of		
	in an investigation.		I am beginning to help decide which variables to keep the same and which to change.	change.	I can sometimes set up a range of comparative and fair tests.	I can set up a range of comparative and fair tests.		
			and which to change.		I am beginning to explain which variables need to be controlled and why.	I can explain which variables need to be controlled and why.		
					I am beginning to suggest improvements to my test, giving	I can suggest improvements to m test, giving reasons.		
					reasons.			
Recording and	Gather and record data with some adult support, to help in answering questions.	Gather and record data to help in answering questions.	Gather, record, and begin to classify and present data in a variety of ways to help in	Gather, record, classify and present data in a variety of ways to help in answering questions.	Begin to record data and results of increasing complexity using scientific diagrams and labels,	Record data and results of increasing complexity using scientific diagrams and labels,		
reporting findings	Begin to record simple data.	Record simple data.	answering questions.	Record findings using simple	classification keys, tables and bar and line graphs.	classification keys, tables and bar and line graphs.		
	Begin to record and communicate	Record and communicate their findings in a range of ways.	Begin to record findings using simple scientific language,	scientific language, drawings, labelled diagrams, keys, bar charts	Begin to report and present	Report and present findings from		
	their findings in a range of ways.	Can show my results in a table	drawings, labelled diagrams, keys, bar charts and tables.	and tables.	findings from enquiries.	enquiries.		
	Can show my results in a simple table that my teacher has	that my teacher has provided.	Begin to report on findings from	Report on findings from enquiries, including oral and written	Begin to decide how to record data from a choice of familiar	Decide how to record data from a choice of familiar approaches.		
	provided.	I can collect simple data.	enquiries, including oral and written explanations, displays or	explanations, displays or presentations of results and	approaches.	Can choose how best to present		
	I can begin to collect simple data.	I can record data in a table my teacher has provided.	presentations of results and conclusions.	conclusions.	Begin to choose how best to present data.	data.		
	I can begin to record data in a table my teacher has provided.	I can communicate my findings in a variety of ways.	Begin to use notes, simple tables and standard units and help to	Use notes, simple tables and standard units and help to decide how to record and analyse their	I am beginning to record data and results of increasing complexity	I can record data and results of increasing complexity using – scientific diagrams and labels		
	I can begin to communicate my findings in a variety of ways.	a variety of ways.	decide how to record and analyse their data.	data.	using – scientific diagrams and labels, classification keys, tables,	classification keys, tables, bar graphs line graphs.		
			Begin to record results in tables	Can record results in tables and bar charts.	bar graphs, line graphs.	I can choose how best to present		
			and bar charts.		I am beginning to choose how best to present data.	data.		
						I can communicate findings using detailed scientific language.		



		I am beginning to collect data in a variety of ways, including labelled diagrams, bar charts and tables.  I am beginning to help decide how to record data.	I can collect data in a variety of ways, including labelled diagrams, bar charts and tables.  I can help decide how to record data.	I am beginning to communicate findings using detailed scientific language					
		I am beginning to communicate findings using simple scientific language.	I can communicate findings using simple scientific language.						
Progression in Working Scientifically									
Year 1 (KS1 skills)	Year 2 (KS1 skills)	Year 3 (Lower KS2	Year 4 (Lower KS2	Year 5 (Upper KS2	Year 6 (Upper KS2				
		skills)	skills)	skills)	skills)				
Identify and classify with some support.  To begin to observe and identify, compare and describe.  To begin to use simple features to compare objects, materials and living things and, with help, decide how to sort and group them.  I can begin to identify a variety of objects, materials and living things.  I can begin to compare, sort and group a range of objects, materials and living things.  Identifying, grouping and classifying	Identify and classify.  Observe and identify, compare and describe.  Use simple features to compare objects, materials and living things and, with help, decide how to sort and group them.  I can identify a variety of objects, materials and living things.  I can compare, sort and group a range of objects, materials and living things.	Begin to identify differences, similarities or changes related to simple scientific ideas and processes.  Begin to talk about criteria for grouping, sorting and classifying and use simple keys.  Begin to compare and group according to behaviour or properties, based on testing.  I am beginning to talk about and identify differences and similarities in the properties or behaviour of living things, materials and other scientific phenomena.  I am beginning to identify simple changes related to simple scientific phenomena.  I am beginning to discuss criteria for grouping and sorting and can classify using simple keys.	Identify differences, similarities or changes related to simple scientific ideas and processes.  Talk about criteria for grouping, sorting and classifying and use simple keys.  Compare and group according to behaviour or properties, based on testing.  I can talk about and identify differences and similarities in the properties or behaviour of living things, materials and other scientific phenomena.  I can identify simple changes related to simple scientific phenomena.  I can discuss criteria for grouping and sorting and can classify using simple keys.	Begin to use and develop keys and other information records to identify, classify and describe living things and materials.  I am beginning to use keys and other information records to classify and describe living things, materials and other scientific phenomena.  I am beginning to develop my own keys and other information records to classify and describe.  I am beginning to identify changes related to scientific phenomena.	Use and develop keys and other information records to identify, classify and describe living things and materials.  I can use keys and other information records to classify and describe living things, materials and other scientific phenomena.  I can develop my own keys and other information records to classify and describe.  I can identify changes related to scientific phenomena.				



	Progression in Working Scientifically								
	Year 1 (KS1 skills)	Year 2 (KS1 skills)	Year 3 (Lower KS2 skills)	Year 4 (Lower KS2 skills)	Year 5 (Upper KS2 skills)	Year 6 (Upper KS2 skills)			
	To begin to use simple secondary	Use simple secondary sources to	Begin to recognise when and how	Begin to recognise when and how	Begin to recognise which	Recognise which secondary			
	sources to find answers.  To begin to find information to	find answers.  Can find information to help me	secondary sources might help to answer questions that cannot be answered through practical	secondary sources might help to answer questions that cannot be answered through practical	secondary sources will be most useful to research their ideas.	sources will be most useful to research their ideas.			
Dagagash	help me from books and computers with help.	from books and computers with help.	investigations.	investigations.	I am beginning to recognise which secondary source will be most	I can recognise which secondary source will be most useful to my			
Research	I can begin to find information to help me from books, computers	I can find information to help me from books, computers and other	I can begin to decide when research will help in my enquiry.	I can begin to decide when research will help in my enquiry.	useful to my research.  I can begin to carry out research	research.  I can carry out research			
	and other familiar sources.	familiar sources.	I am beginning to carry out simple research on my own.	I can carry out simple research on my own.	independently.	independently.			
Conclusions	Begin to talk about what they have found out and how they found it out.	Talk about what they have found out and how they found it out.	I am beginning to use results to draw simple conclusions, make predictions for new values,	Using results to draw simple conclusions, make predictions for new values, suggest	Am beginning to report and present findings from enquiries, including conclusions, causal	Reporting and presenting findings from enquiries, including conclusions, causal relationships			
	To begin to say what happened in my investigation.	To say what happened in my investigation.	suggest improvements and raise further questions.	improvements and raise further questions.	relationships and explanations of and degree of trust in results, in oral and written forms such as	and explanations of and degree of trust in results, in oral and written forms such as displays and other			
	To begin to say whether I was surprised at the results or not.	To say whether I was surprised at the results or not.	I am beginning to use straightforward scientific evidence to answer questions or	Use straightforward scientific evidence to answer questions or to support their findings.	displays and other presentations.  Begin to identify scientific	presentations.  Identify scientific evidence that			
	To begin to say what I would change about my investigation.	To say what I would change about my investigation.	to support their findings.  With help, am beginning to look	With help, look for changes, patterns, similarities and	evidence that has been used to support or refute ideas or arguments.	has been used to support or refute ideas or arguments.			
	I can begin to talk about what I have found out.	I can talk about what I have found out.	for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions.	differences in their data in order to draw simple conclusions and answer questions.	Begin to draw conclusions based on their data and observations, use evidence to justify their ideas,	Draw conclusions based on their data and observations, use evidence to justify their ideas, use scientific knowledge and			
	I can begin to explain how I carried out my enquiry.	I can explain how I carried out my enquiry.	With support, I am beginning to identify new questions arising	With support, identify new questions arising from the data, make new predictions and find	use scientific knowledge and understanding to explain their findings.	understanding to explain their findings.			
	I can begin to suggest simple changes to my inquiry.	I can suggest simple changes to my enquiry.	from the data, make new predictions and find ways of improving what they have already	ways of improving what they have already done.	Begin to use test results to make predictions to set up further	Use test results to make predictions to set up further comparatives and fair tests.			
			done.  I am beginning to see a pattern in	Can see a pattern in my results.  Can say what I found out, linking	comparatives and fair tests.  Begin to look for different causal	Look for different causal relationships in their data and			
			my results.	cause and effect.	relationships in their data and identify evidence that refutes or	identify evidence that refutes or supports their ideas.			
			I am beginning to say what I found out, linking cause and effect.	Can say how I could make it better.	supports their ideas.  Use their results to identify when	Use their results to identify when further tests and observations are			
			I am beginning to say how I could make it better.	Can answer questions from what I have found out.	further tests and observations are needed.	needed.  Separate opinion from fact.			
			I am beginning to answer questions from what I have found out.	I can draw simple conclusions based on the results of my enquiry.	Begin to separate opinion from fact.	Can draw conclusions and identify scientific evidence.			
			I am beginning to draw simple conclusions based on the results of my enquiry.	I can answer my questions using the results of my enquiry.	Begin to draw conclusions and identify scientific evidence.  Can use simple models.	Can use simple models. Know which evidence proves a scientific			



	I am beginning to answer questions using the result enquiry.  I am beginning to use my to make new predictions improvements and think questions.  I am beginning sometime think of cause and effect explanations.	predictions, suggest improvements and think of new questions.  I can begin to think of cause and effect in my explanations.	scientific point.  Begin to use test results to make predictions to set up further comparative and fair tests.  I am beginning to draw scientific, causal conclusions using the results of an enquiry to justify my ideas.	Use test results to make predictions to set up further comparative and fair tests.  I can draw scientific, causal conclusions using the results of an enquiry to justify my ideas.  I can explain my conclusion using scientific knowledge and understanding.
	to make new predictions improvements and think questions.  I am beginning sometime think of cause and effect	of new  I can begin to think of cause and effect in my explanations.	comparative and fair tests.  I am beginning to draw scientific, causal conclusions using the results of an enquiry to justify my	conclusions using the results of an enquiry to justify my ideas.  I can explain my conclusion using scientific knowledge and
			I can begin to use abstract models to explain my ideas	



Year 1 (KS1 skills)	Year 2 (KS1 skills)	Year 3 (Lower KS2	Year 4 (Lower KS2	Year 5 (Upper KS2	Year 6 (Upper KS2
		skills)	skills)	skills)	skills)
Vear 1 (KS1 skills)  Use some simple scientific language.  Begin to use some science words Use comparative language with support.  I can begin to use simple scientific language.  I can begin to describe what I see e.g. something is long.  I can begin to compare e.g. something is longer or shorter.	Use simple scientific language and some science words.  Use comparative language — bigger, faster etc.  I can use simple scientific language.  I can describe what I see.				·



	Year 1 (KS1 skills)	Year 2 (KS1 skills)	n in Working S Year 3 (Lower KS2	Year 4 (Lower KS2	Year 5 (Upper KS2	Year 6 (Upper KS2
	,	, ,	skills)	skills)	skills)	skills)
Jnderstanding	Can begin to talk about how science helps us in our daily lives e.g. torches and lights help us see when it is dark.  Am beginning to understand science can sometimes be dangerous.  I can say how science helps us in our daily lives.  I can say how science can be dangerous e.g. electricity can give you a shock.	Can talk about how science helps us in our daily lives e.g. torches and lights help us see when it is dark.  Am beginning to understand science can sometimes be dangerous.  I can say how science helps us in our daily lives.  I can say how science can be dangerous e.g. electricity can give you a shock.	Begin to know which things in science have made our lives better.  Can begin to understand risk in science.  I am beginning to know which things in science have made our lives better e.g. computers in schools, hospitals etc.  I can begin to understand risk in science.	Knows which things in science have made our lives better.  Can understand there is some risk in science.  I know some things in science which have made our lives better e.g. computers in schools, hospitals etc.  I understand there is some risk in science.	Am beginning to talk about how scientific ideas have changed over time.  Am beginning to explain the positive and negative effects of scientific development.  Am beginning to see how science is useful in everyday life.  Am beginning to say which parts of our lives rely on science.  I am beginning to say which parts of our lives rely on science.  I am beginning to say which parts of our lives rely on science.  I am beginning to explain the positive and negative effects of scientific developments.	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.  Can say which parts of our lives rely on science.  I can see how science is useful in lots of different ways.  I can say which parts of our lives rely on science.  I can explain the positive and negative effects of scientific developments.