Crawford Village Primary School	Progre					
	Year 1 (KS1 skills)	Year 2 (KS1 skills)	Year3 (Lower KS2 skills)	Year 4 (Lower KS2 skills)	Year 5 (Upper KS2 skills)	Year 6 (Upper KS2 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 (diifferent 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.	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.	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.	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.	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	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

I can plan different         I am beginning to         I plan different types         I plan different types         I can decide which
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I am beginning to decide which variables to control. variables to control.

Crawford Village Primary School

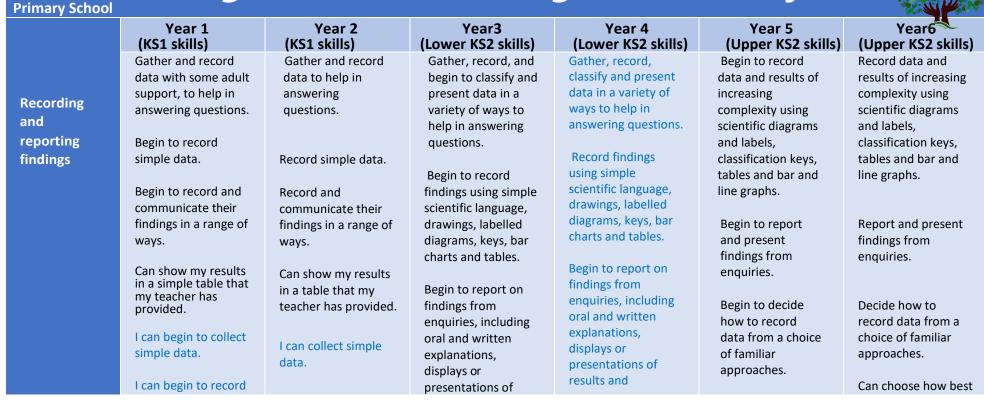
## **Progression in Working Scientifically**



	Year 1 (KS1 skills)	Year 2 (KS1 skills)	Year3 (Lower KS2 skills)	Year 4 (Lower KS2 skills)	Year 5 (Upper KS2 skills)	Year 6 (Upper KS2 skills)
Investigating	Perform simple tests with support. To begin to discuss my ideas about how to find things out. To begin to say what happened in my investigation. I can begin to perform simple tests.	Perform simple tests. To discuss my ideas about how to find things out. To say what happened in my investigation. I can perform simple tests.	Set up some simple practical enquiries, comparative and fair tests. Begin to recognise when a simple fair test is necessary and help to decide how to set it up. Begin to think of more than one variable factor.	Set up simple practical enquiries, comparative and fair tests. Recognise when a simple fair test is necessary and help to decide how to set it up. Can think of more than one variable factor.	Begin to use test results to make predictions to set up further comparative and fair tests. Begin to recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why.	Use test results to make predictions to set up further comparative and fair tests. Recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why.
	discuss my ideas. I can begin to say what happened in an investigation.	ideas. I can say what happened in an investigation.	I can set up some simple practical enquiries. Including comparative and fair tests. I am beginning to help decide which variables to keep the same and which to change.	I can set up simple practical enquiries. Including comparative and fair tests. I can help decide which variables to keep the same and which to change.	Begin to suggest improvements to my method and give reasons. Begin to decide when it is appropriate to do a fair test. I can sometimes set up a range of comparative and fair tests.	Suggest improvements to my method and give reasons. Decide when it is appropriate to do a fair test. I can set up a range of comparative and fair tests.

	I am beginning to explain which variables need to be controlled and why. I am beginning to suggest improvements to my test, giving reasons.	variables need to be controlled and why. I can suggest improvements to my test, giving reasons.
Crawford Village	<b>Progression in Working Scientifically</b>	

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data in a table teacher has provided. I can begin to communicate findings in a vi of ways.	table my teacher has provided.	results and conclusions. Begin to use notes, simple tables and standard units and help to decide how to record and analyse their data. Begin to record results in tables and bar charts. 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 am beginning to communicate findings using simple scientific language.	<ul> <li>conclusions.</li> <li>Use notes, simple tables and standard units and help to decide how to record and analyse their data.</li> <li>Can record results in tables and bar charts.</li> <li>I can collect data in a variety of ways, including labelled diagrams, bar charts and tables.</li> <li>I can help decide how to record data.</li> <li>I can communicate findings using simple scientific language</li> </ul>	<ul> <li>Begin to choose how best to present data.</li> <li>I am beginning to record data and results of increasing complexity using – scientific diagrams and labels, classification keys , tables ,bar graphs, line graphs</li> <li>I am beginning to choose how best to present data.</li> <li>I am beginning to communicate findings using detailed scientific language.</li> </ul>	<ul> <li>to present data.</li> <li>I can record data and results of increasing complexity using <ul> <li>scientific</li> <li>diagrams and</li> <li>labels,</li> <li>classification</li> <li>keys, tables, bar</li> <li>graphs line</li> <li>graphs</li> </ul> </li> <li>I can choose how best to present data.</li> <li>I can communicate findings using detailed scientific language.</li> </ul>
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Crawford Village Primary School	Progre	ession in	Working	g Scienti	fically	
	Year 1	Year 2	Year3	Year 4	Year 5	Year-6
	(KS1 skills)	(KS1 skills)	(Lower KS2 skills)	(Lower KS2 skills)	(Upper KS2 skills)	(Upper KS2 skills)

Identifying, grouping and classifying

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.

Observe and identify, compare and describe.

Identify and classify.

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 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 kevs 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.

changes related to phenomena.

I can identify scientific

## and can classify using simple keys.

Crawford Village Primary School	Progr	ession in	Workin	g Scienti	ifically	
	Year 1 (KS1 skills)	Year 2 (KS1 skills)	Year3 (Lower KS2 skills)	Year 4 (Lower KS2 skills)	Year 5 (Upper KS2 skills)	Year-6 (Upper KS2 skills)
Research	To begin to use simple secondary sources to find answers. To begin to find information to help me from books and computers with help. I can begin to find information to help me from books, computers and other familiar sources.	Use simple secondary sources to find answers. Can find information to help me from books and computers with help.	Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations. I can begin to decide when research will help in my enquiry. I am beginning to carry out simple research on my own.	Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations. I can begin to decide when research will help in my enquiry. I can carry out simple research on my own.	Begin to recognise which secondary sources will be most useful to research their ideas. I am beginning to recognise which secondary source will be most useful to my research. I can begin to carry out research independently.	Recognise which secondary sources will be most useful to research their ideas. I can recognise which secondary source will be most useful to my research. I can carry out research independently.

Crawford Village Primary School

## **Progression in Working Scientifically**

Year 1 (KS1 skills)	Year 2 (KS1 skills)	Year3 (Lower KS2 skills)	Year 4 (Lower KS2 skills)	Year 5 (Upper KS2 skills)	Year-6 (Upper KS2 skills)
Begin to talk about	Talk about what they	I am beginning to use	Using results to draw	Am beginning to	Reporting and
what they have	have found out and	results to draw simple	simple conclusions,	report and present	presenting findings
found out and how	how they found it	conclusions, make	make predictions for	findings from	from enquiries,

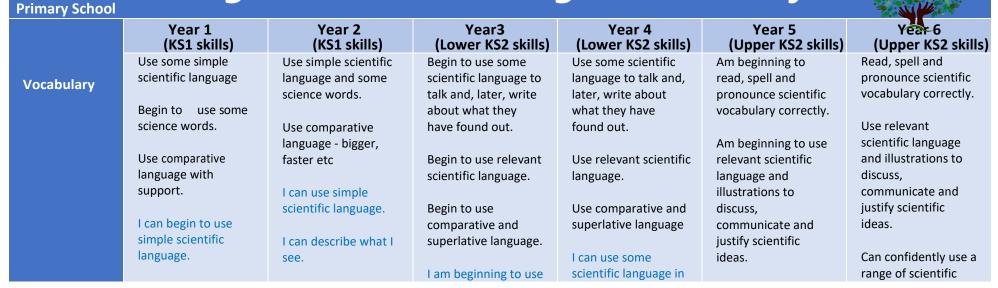
	they found it out.	out.	predictions for new	new values, suggest	enquiries, including	including
			values, suggest	improvements and	conclusions, causal	conclusions, causa
	To begin to say what	To say what	improvements and	raise further	relationships and	relationships and
	happened in my	happened in my	raise further questions.	questions.	explanations of and	explanations of ar
	investigation.	investigation.			degree of trust in	degree of trust in
	To begin to say	To say whether I was	Am beginning to use	Use straightforward	results, in oral and	results, in oral and
	whether I was	surprised at the	straightforward	scientific evidence to	written forms such	written forms suc
	surprised at the	results or not.	scientific evidence to	answer questions or	as displays and other	as displays and ot
<b>••••</b>	results or not.	To say what I would	answer questions or to	to support their	presentations.	presentations.
Conclusions		•	•		presentations.	presentations.
	To begin to say what	change about my	support their findings.	findings.		
	I would change	investigation.				
	about my			With help, look for	Begin to identify	
	investigation.		With help, am beginning	changes, patterns,	scientific evidence	Identify scientific
			to look for changes,	similarities and	that has been used	evidence that has
		I can talk about what	patterns, similarities and	differences in their	to support or refute	been used to sup
	I can begin to talk	I have found out.	differences in their data	data in order to draw	ideas or arguments.	or refute ideas or
	about what I have	Thave found out.	in order to draw simple	simple conclusions		arguments.
	found out.	Leon ovaloin how l	conclusions and answer	and answer	Begin to draw	
		I can explain how I	questions. With support,	questions. With	conclusions based on	Draw conclusions
	I can begin to explain	carried out my	am beginning to identify	support, identify new	their data and	based on their da
	how I carried out my	enquiry.	new questions arising	questions arising	observations, use	and observations
	enquiry.		from the data, make	from the data, make	evidence to justify	use evidence to
		I can suggest simple	new predictions and find	new predictions and	their ideas, use	justify their ideas
	I can begin to	changes to my	ways of improving what	find ways of	scientific knowledge	use scientific
	suggest simple	enquiry.	they have already done.	improving what they	and understanding to	knowledge and
	changes to my			have already done.	explain their	understanding to
	enquiry.		Am beginning to see a	,	findings.	explain their find
			pattern in my results.	Can see a pattern in	0	
			Am beginning to say	my results.	Begin to use test	
			what I found out, linking	,	results to make	Use test results to
			cause and effect.	Can say what I found	predictions to set up	make predictions
				out, linking cause	further comparatives	set up further
			Am beginning to say how	and effect.	and fair tests.	comparatives and
			I could make it better.			fair tests.
			record make it better.	Can say how I could	Begin to look for	iun tests.
			Am beginning to answer	make it better.	different causal	Look for different
			questions from what I	make it better.		
				Can answer questions	relationships in their	causal relationshi
			have found out.	from what I have	data and identify	in their data and

	found out.	evidence that refutes	identify evidence
I am beginning to draw simple conclusions based on the results of my enquiry.	I can draw simple conclusions based on the results of my enquiry. I can answer my	or supports their ideas. Use their results to identify when further tests and observations are	that refutes or supports their ideas. Use their results to identify when further tests and observations are
I am beginning to answer my questions using the results of my enquiry.	questions using the results of my enquiry.	needed. Begin to separate opinion from fact.	needed. Separate opinion fror fact.
I am beginning to use my findings to make new predictions, suggest improvements and think of new	I can use my findings to make new predictions, suggest improvements and think of new questions.	Begin to draw conclusions and identify scientific evidence. Can use simple <b>models.</b>	Can draw conclusions and identify scientific evidence. Can use simple <b>models</b>
questions. I am beginning sometimes to think of cause and effect in my	I can begin to think of cause and effect in my explanations.	Know which evidence proves a scientific point.	Know which evidence proves a scientific point. Use test results to
explanations.		Begin to use test results to make predictions to set up further comparative and fair tests.	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.	I can draw scientific, causal conclusions using the results of an enquiry to justify my ideas.
		I am beginning to explain my conclusion using	I can explain my conclusion using scientific knowledge

			scientific knowledge and understanding. I am beginning to distinguish opinion and facts. I am beginning to use my findings to make predictions and set up further enquiries. I can begin to use abstract models to explain my ideas.	<ul> <li>and understanding.</li> <li>I can distinguish opinion and facts.</li> <li>I can use my findings to make predictions and set up further enquiries.</li> <li>I can begin to use abstract models to explain my ideas.</li> </ul>
Crawford	•			SAN AND

Progres	ssion in V	<b>Vorkina</b> S	Scientif	ically

Village



I can begin to describe what I s eg something is I can begin to compare eg something is lon or shorter.	long. shorter.	<ul> <li>some scientific language in my work.</li> <li>I am beginning to describe my observations and my findings.</li> <li>I am beginning to use comparative and superlative descriptions eg long<u>er</u> / short<u>er</u> than, longest / shortest.</li> <li>I can begin to describe cause and effect.</li> </ul>	<ul> <li>my work.</li> <li>I can describe my observations and my findings.</li> <li>I can use comparative and superlative descriptions eg longer / shorter than, longest / shortest.</li> <li>I can begin to describe cause and effect.</li> </ul>	<ul> <li>Am beginning to confidently use a range of scientific vocabulary.</li> <li>Am beginning to use conventions such as trend, rogue result, support prediction and -er word generalisation.</li> <li>Am beginning to use scientific ideas when describing simple processes.</li> <li>Am beginning to use the correct science vocabulary</li> <li>I am beginning to read, spell and pronounce scientific vocabulary correctly.</li> <li>I am beginning to confidently use the correct scientific language when appropriate.</li> <li>I am beginning to explain my ideas with scientific reasons.</li> </ul>	<ul> <li>vocabulary.</li> <li>Can use conventions such as trend, rogue result, support prediction and -er word generalisation.</li> <li>Can use scientific ideas when describing simple processes. Can use the correct science vocabulary</li> <li>I can read, spell and pronounce scientific vocabulary correctly.</li> <li>I can confidently use the correct scientific language when appropriate.</li> <li>I can explain my ideas with scientific reasons.</li> <li>I can use scientific conventions eg trends, rogue result, support prediction.</li> </ul>
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Crawford Village Primary School	Progre	ession in	Working	g Scienti	I am beginning to use scientific conventions eg trends, rogue result, support prediction.	
Understanding	Year 1 (KS1 skills) Can begin to talk about how science helps us in our daily lives eg. torches and lights help us see hen 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 eg electricity can give you a shock.	Year 2 (KS1 skills) Can talk about how science helps us in our daily lives eg. torches and lights help us see hen 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 eg electricity can give you a shock.	Year3 (Lower KS2 skills) 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 eg computers in schools, hospitals etc I can begin to understand risk in science.	Year 4 (Lower KS2 skills) 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 eg computers in schools, hospitals etc I understand there is some risk in science.	Year 5 (Upper KS2 skills) 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 see how science is useful in lots of different ways. I am beginning to say which parts of our lives rely on science.	Year-6 (Upper KS2 skills)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 am beginning to	I can explain the positive and negative

explain the positive and negative effects of scientific developments. effects of scientific developments

Crawford **Progression in Working Scientifically** Village **Primary School** Year 7 - for Year 7 information Can interpret data from a variety of formats and recognise inconsistencies. Can give explanations for differences in repeated results. Can draw valid conclusions that use more than one piece of supporting evidence. I can evaluate my work and make suggestions for improvement. Procedure Materials Can identify several variables and select the best one/s to investigate. Can say why equipment is appropriate to the task. Hypothesi Conclusion imen Can make suggestions to control risk. Can decide which format is best to present data. Can use scientific conventions to explain abstract ideas. Know the difference between scientific evidence and opinion. Understand that people have different ideas about science.

Can say how science affects me and other people in different ways.

Understands that science can be used in a positive way.

Can use more than one step to describe a process.

Can explain scientific ideas in a clear and detailed way.

Can identify strengths and weaknesses in science models and thoughts.