

Whole School Science Progression of Skills

SCIENCE Progression Skills	of EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Observing Measuring Changes	Discuss the similarities and differences. e.g. Do the leaves change on trees?	Begin to observe closely, using senses and simple equipment. e.g. Are the leaves different in Spring? Use simple observations and ideas to suggest answers to questions. To observe simple changes over time and, with guidance, begin to notice patterns and relationships. e.g. Seasonal Changes.	Observing closely, using simple equipment. Observe closely, using simple equipment. e.g. Through making simple observations, I can identify everyday materials and discuss their properties. Use observations and ideas to suggest answers to questions. To observe changes over time	Begin to make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment. e.g. To know that magnetism is a force which can act without direct contact. Help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used.	Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. e.g. To plan, set up and carry out comparative and fair tests, including controlling variables to	Begin to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings where appropriate. e.g. To use scientific data to study early childhood growth and make comparisons between weight and height. Begin to identify patterns that might be found in the natural environment.	Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. e.g. To plan and develop a fair test that gives me information about the impact of exercise on my body (pulse rate). Identify patterns that might be found in the natural environment.

/ Y	A. A.	24	\sim \times	**	A .	Øë.
	To say what I am looking for and what I am measuring with adult support. To know how to use simple equipment safely with adult support. Begin to use simple measurements and equipment with adult support.	notice patterns and relationships. To begin say what I am looking for and what I am measuring. To know how to use simple equipment safely. Use simple measurements and equipment with increasing independence.	Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them. Learn to use some new equipment appropriately. Begin to see a pattern in my results. Begin to choose from a selection of equipment. Begin to observe and measure accurately using standard units.	power source on a component. Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them. Help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. Learn to use new equipment appropriately, Can see a pattern in my results. Can choose from a selection of equipment. Can observe and measure accurately using standard units.	Begin to make their own decisions about what observations to make, what measurements to use and how long to make them for and whether to repeat them. Choose the most appropriate equipment and explain how to use it accurately. Begin to interpret data and find patterns. Select equipment on my own. Can make a set of observations and say what the interval and range are. Begin to take accurate and precise measurements.	Make their own decisions about what observations to make, what measurements to use and how long to make them for and whether to repeat them. Choose the most appropriate equipment and explain how to use it accurately. Can interpret data and find patterns. Select equipment on my own. Can make a set of observations and say what the interval and range are. Accurate and precise measurements.
4			1177			

	7.4	(Y	Y Y	No.		**	A .	9
	Identifying,	Identify with	Identify and	Identifying and	Begin to gathering,	Gathering,	Begin to recording	Recording data
	Classifying,	support. e.g. To	classify with	classifying. e.g.	recording,	recording,	data and results of	and results of
		identify a	some support.	To identify	classifying and	classifying and	increasing	increasing
	Recording and	caterpillar and	e.g. To know	everyday	presenting data in a	presenting data	complexity using	complexity using
	Presenting Data	parts of its life cycle.	what animals come from	materials. Gathering and	variety of ways to help in answering	in a variety of ways to help in	scientific diagrams and labels,	scientific diagrams and
		cycle.	eggs.	recording data to	questions.	answering	classification keys,	labels,
			eggs.	help in answering	questions.	questions.	tables, scatter	classification
7			To begin to	questions.	Begin to recording	42-5	graphs, bar and	keys, tables,
N			observe and	•	findings using simple	Recording	line graphs.	scatter graphs,
ij			identify,	Observe and	scientific language,	findings using		bar and line
-			compare and	identify, compare	drawings, labelled	simple	Begin to use and	graphs.
			describe.	and describe.	diagrams, keys, bar	scientific	develop keys and	
					charts, and tables.	language,	other information	Use and develop
			To begin to use	Use simple features to	Daain ta idantifu	drawings, labelled	records to identify, classify	keys and other information
			simple features to compare	compare objects,	Begin to identify differences,	diagrams,	and describe living	records to
			objects,	materials and	similarities or	keys, bar	things and	identify, classify
			materials and	living things and,	changes related to	charts, and	materials. e.g. I	and describe living
-			living things	with	simple scientific	tables.	can investigate the	things and
77			and, with help,	help, decide how	ideas and processes.		thermal efficiency	materials. e.g.
13			decide how to	to sort and group	e.g. To compare the	Identify	of different	Through studying
			sort and group	them.	teeth of animals and	differences,	materials and use	report writing, I
N			them. e.g. I can		humans to identify	similarities or	my results to	am able to
ŭ			name and sort		their differences	changes related	answer a question.	present
IJ			the groups of		and similarities.	to simple scientific ideas		information about the functions of
			animals including		Begin to talk about	and processes.		the parts of the
			fish, mammals, birds, reptiles		criteria for grouping,	e.g. To group		circulatory
			and amphibians.		sorting and	and classify		system.
			and umpriiblans.		classifying and	materials based		,
					use simple keys.	on given		
						criteria.		
					Begin to compare	_		
					and group according	To use a range		
					to behaviour or	of scientific		
					properties, based on testing.	tests to classify		
					100 mg.	materials.		
	/ 1/2							

()	Lo 1	YY	y ···		~.	0 /	\$°°	
Q.					Talk about criteria for grouping, sorting and classifying and use simple keys. Compare and group according			
					to behaviour or properties, based on testing.			
M								
7								
E = M	C			7			i A	

Drawing
Conclusions,
Noticing
Patterns and
Presenting
Findings

To begin to record data with adult support. e.g. Which ice cube melted the quickest?

Begin to use their observations and ideas to suggest answers to questions. e.g. By observing changes through the year, I can recognise deciduous or evergreen trees.

Gather and record data with some adult support, to help in answering questions.

Begin to record simple data.

Begin to record and communicate their findings in a range of ways.

Can show my results in a simple table that my teacher has provided Begin to talk about what they have found out and how

Using their observations and ideas to suggest answers to questions. e.g. Through exploring a variety of materials, I can identify and classify the properties of them and make comparisons about their suitability.

Gather and record data to help in answering questions.

Record simple data.

Record and communicate their findings in a range of ways.

Can show my results in a table that my teacher has provided.
Talk about what they have found out and how they found it out.

To say what happened in my investigation.

Using results begin to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. e.g. To design my own practical experiment to explore the effect of exercise on my muscles.

Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.

Gather, record, and begin to classify and present data in a variety of ways to help in answering questions.

Begin to record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.

Begin to report on findings from enquiries, including

Using results to draw simple conclusions, make predictions for new values. suggest improvements and raise further questions. e.g. Using my knowledge of electricity, I know that electrical equipment can be dangerous and the associated consequences.

Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.

Gather, record, classify and present data in a variety of ways to help in answering questions.

Begin to report and present findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations, e.g. To understand how sexual and asexual reproduction occurs in plants. To draw conclusions based on my data and observations and use my scientific knowledge and understanding to explain my findings.

data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar and line graphs.

Begin to record

Begin to report and present

Reporting and presenting findings from enquiries, including conclusions. causal relationships and explanations of and a degree of trust in results. in oral and written forms such as displays and other presentations. e.g. Through studying report writing, I am able to present information about the functions of the parts of the circulatory system.

Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar and line graphs.

No.	ATTY	A A A	*	X	A	· /3		
4		they found it		oral and written	Record findings	findings from	Report and	
		out	To begin to say	explanations,	using simple	enquiries.	present findings	
		ou i	whether I was	displays or	scientific	criquii 105.	from enquiries.	
		To begin to say	surprised at the	presentations of	language,	Begin to decide	mon enquiries.	
		what happened	results or not.	results and	drawings,	how to record data	Decide how to	
		in my	results of flot.	conclusions.	labelled	from a choice of	record data from	
		investigation	To begin to say	conclusions.	diagrams, keys,	familiar	a choice of	Ł
		with adult	what I would	Begin to use notes,	bar charts and	approaches.	familiar	ı
			change about my	simple tables and	tables.	approaches.	approaches.	
j		support.	investigation.	standard units and	Report on	Begin to choose	арргоаспез.	
1		To begin to any	investigation.	help to decide how	*	how best to	Can choose how	
		To begin to say whether I was		to record and	findings from			
				analyse their data.	enquiries,	present data.	best to present	
		surprised at the results or not.		unalyse mem data.	including oral and written	Am beginning to	data Reporting and	
		resurts or not.		Daain to nacend		report and present findings from	•	
		To begin to any		Begin to record results in tables and	explanations,		presenting findings from	
		To begin to say what I would		bar charts.	displays or presentations	enquiries, including	•	
				bar charis.	of results and	conclusions, causal	enquiries,	
		change about		Danin to use megults	conclusions.	relationships and explanations of	including	
		my investigation with adult		Begin to use results to draw simple	conclusions.		conclusions, causal	
				conclusions, make	Use notes,	and degree of trust in results, in	relationships and	
		support.		predictions for new	simple tables	oral and written	explanations of and degree of	
				•	and standard	forms such as	trust in results, in	
				values, suggest improvements and	units and help	displays and other	oral and written	
				raise further	to decide how	presentations.	forms such as	
				questions.	to record and	presentations.	displays and other	
				questions.	analyse their	Begin to identify	presentations.	
				Begin to use straight	data.	scientific evidence	presentations.	
				forward scientific	dara.	that has been used	Identify	
				evidence to answer	Can record	to support or	scientific	
				questions or to	results in tables	refute ideas or	evidence that has	
				support their	and bar charts.	arguments.	been used to	
				findings.	Using results to	arguments.	support or refute	
				, manys.	draw simple	Begin to draw	ideas or	
				With help, begin to	conclusions,	conclusions based	arguments.	
				look for changes,	make	on their data and	argumentis.	
				patterns, similarities	predictions for	observations, use	Draw conclusions	
				and differences in	new values,	evidence to justify	based on their	
				their data in order	suggest	their ideas, use	data and	
				to draw simple	improvements	scientific	observations, use	F
1				. o araw shiipie	and raise	33,0111710	evidence to	A
							1	

1	1	CY	A A	Zi .			200	F	
	CV				conclusions and	further	knowledge and	justify their	1
					answer questions.	questions.	understanding to	ideas, use	
					·	•	explain their	scientific	
					With support, begin	Use	findings.	knowledge and	
					to identify new	straightforward		understanding to	
					questions arising	scientific	Begin to use test	explain their	
					from the data, make	evidence to	results to make	findings.	
7					new	answer	predictions to set		
6					predictions and find	questions or to	up further	Use test results	
7					ways of improving	support their	comparatives and	to make	
					what they have	findings.	fair tests.	predictions to set	
					already done.	NAME OF THE PARTY		up further	
					Danis to do :	With help, look	Begin to look for	comparatives and	
					Begin to see a	for	different causal	fair tests.	
					pattern in my	changes,	relationships in	Look for	
					results.	patterns, similarities and	their data and	different causal	
					Pagin to gay what T	differences in	identify evidence that refutes or	relationships in	
					Begin to say what I found out, linking	their data in	supports their	their data and	
					cause and effect.	order to draw	ideas.	identify evidence	
77					cause and effect.	simple	ideus.	that refutes or	
W .					Begin to say how I	conclusions and	Use their results	supports their	
(6)					could	answer	to identify when	ideas.	
W					make it better	questions.	further tests and	racas.	
W					mano ii borror	questions.	observations are	Use their results	
44					Begin to answer	With support,	needed.	to identify when	
2					questions from what	identify new		further tests and	
					I have found out.	questions	Begin to separate	observations are	
						arising	opinion from fact.	needed.	
						from the data,	'		
						make new	Begin to draw	Separate opinion	
						predictions and	conclusions and	from fact.	
						find ways of	identify scientific		
						improving what	evidence.	Can draw	
						they have		conclusions and	
						already done.	Can use simple	identify scientific	
							models.	evidence.	
						Can see a		_	
						pattern in my	Know which	Can use simple	
						results.	evidence proves a	models.	
							scientific point.		
		. 12			11 11			200	4
				1	6-11		650	A A	-

E

() 4	YYYY	~	4		
		Can say what I found out, linking cause and effect. Can say how I could make it better. Can answer questions from what I have found out	Begin to use test results to make predictions to set up further comparative and fair tests.	Know which evidence proves a scientific point. Use test results to make predictions to set up further comparative and fair tests.	
E			R.	Å Å	

1.48
Using Scientif
Evidence and
Secondary
Sources of
Information

Listen and begin to respond to stories about scientific processes/ events/ objects with adult support. e.g. The Very Hungry Caterpillar.

Listen and respond to stories about scientific processes/ events/ objects. e.g. The Story of the Mermaid with the Damaged Scale.

Find information using given sources. e.g. To compare a range of images and identify the differences between a herbivore, carnivore and omnivore. Use simple secondary sources to find answers.

Can find information to help me from books and computers with help.

Begin to identify differences, similarities or changes related to simple scientific ideas and processes. e.g. To use secondary sources of information to categorise animals into specific groups dependent on their diet.

Using straightforward scientific evidence to answer questions or to support their findings.

Select information from a range of given sources. Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations. e.g. Using secondary sources of information, I am beginning to learn the scientific vocabulary associated with parts of the tooth.

Identifying differences, similarities or changes related to simple scientific ideas and processes. e.g. To compare the teeth of animals and humans to identify their differences and similarities.

Research using given sources. e.g. research different food groups and how they keep us healthy.

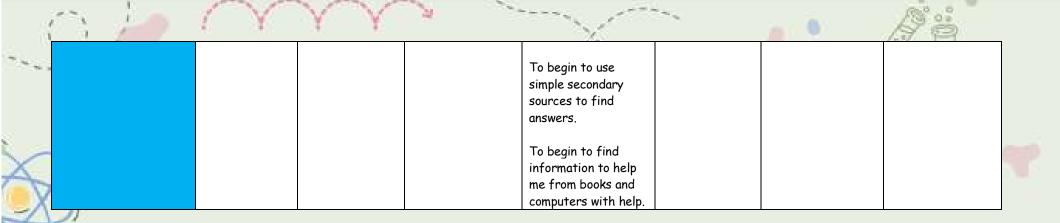
Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations.

Begin to select straightforward scientific evidence to answer questions or to support their findings. e.g. To use independent research to find out about the gestation period of different mammals and present my findings.

Begin to identify scientific evidence that has been used to support or refute ideas or arguments. Using straightforward scientific evidence to answer questions or to support their findings.

Identifying scientific evidence that has been used to support or refute ideas or arguments. e.g. To understand that practical investigations are not always possible for some scientific enquiries, such as examining the inside of a human body and secondary sources must be used.

Select straightforward scientific evidence to answer questions or to support their findings.



Working Scientifically from National Curriculum 2014

