## Sir Alexander Fleming Primary School



## Progression of skills - Science

Areas of	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
learning						
Animals	Asking simple questions, use secondary sources and recognising that they can be answered in different ways e.g.	Asking simple questions, use secondary sources and recognising that they can be answered in different ways e.g.	Asking relevant questions and using different types of scientific enquiries to answer them	Asking relevant questions and using different types of scientific enquiries to answer them.	Planning different types of scientific enquiries to answer questions, including recognising and controlling	Planning different types of scientific enquiries to answer questions, including recognising and controlling
Animals,	observations, results from	observations, data, results	Setting up simple practical	Setting up simple practical	variables where necessary.	variables where necessary.
including	simple tests, researching	from simple tests, researching	enquiries, comparative and fair	enquiries, comparative and fair	Taking measurements, using a	Taking measurements, using a
humans	animals Observing closely, using simple equipment and with help observe changes over time e.g. magnifying glasses & egg	animals Observing closely, using simple equipment and with help observe changes over time e.g. magnifying glasses & egg	tests Making systematic and careful observations and, where appropriate, taking accurate measurements using standard	tests.  Making systematic and careful observations and, where appropriate, taking accurate measurements using standard	range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Recording data and results of	range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Recording data and results of
Evolution	timers.	timers.	units, using a range of	units, using a range of	increasing complexity using	increasing complexity using
and	Performing simple tests e.g.	Performing simple tests	equipment, including	equipment.	scientific diagrams and labels,	scientific diagrams and labels,
Inheritance	sense of smell test, who's pootest, Identifying and classifying e.g. animal groups Using their observations and ideas to suggest answers to questions e.g. discuss what they can see, touch, smell, hear or taste to observe Gathering and recording data to help in answering questions using simple scientific language e.g. Create a chart to record some class data to find the amounts of fruit/veg eaten for a week.	(Fair/comparative) e.g. bread experiment linked to hygiene Identifying and classifying e.g. animal groups organising into groups, find simple patterns. Using their observations and ideas to suggest answers to questions e.g. using their senses Gathering and recording data to help in answering questions using simple scientific language e.g. Create a chart, table, diagram etc to record class data to find the amounts of fruit/veg eaten for a week.	thermometers and data loggers Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions. Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions Using results to draw simple conclusions, make predictions	Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions. Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise	classification keys, tables, scatter graphs, bar and line graphs. Using test results to make predictions to set up further comparative 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. Identifying scientific evidence that has been used to support or refute ideas or arguments.	classification keys, tables, scatter graphs, bar and line graphs. Using test results to make predictions to set up further comparative 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. Identifying scientific evidence that has been used to support or refute ideas or arguments.
			for new values, suggest improvements and raise further questions Identifying differences, similarities or changes related to simple scientific ideas and processes Using straightforward scientific evidence to answer questions or to support their findings.	further questions. Identifying differences, similarities or changes related to simple scientific ideas and processes. Using straightforward scientific evidence to answer questions to support their findings.		

	I	Additional and the second	Additional and the second	Lastra also art	Discourse different in the	
Materials	Name, discuss and raise and	Asking simple questions, use	Asking relevant questions and	Asking relevant questions and	Planning different types of	
	answer questions about	secondary sources & recognise	using different types of	using different types of	scientific enquiries to answer	
	everyday materials so that they	that they can be answered in	scientific enquiries to answer	scientific enquiries to answer	questions, including	
	become familiar with the	different ways e.g. observations, data, results	them Setting up simple practical	them.	recognising and controlling	
Rocks (Y3)	names of materials and	from simple tests, researching	enquiries, comparative and fair	Setting up simple practical	variables where necessary.	
	properties such as e.g.	significant people using IT &	tests	enquiries, comparative and fair tests.	Taking measurements, using a range of scientific equipment,	
		books	Making systematic and careful	Making systematic and careful	with increasing accuracy and	
	hard/soft; shiny/dull;	Observing closely, using simple	observations and, where	observations and, where	precision, taking repeat	
	rough/smooth; bendy/not	equipment e.g. magnifying	appropriate, taking accurate	appropriate, taking accurate	readings when appropriate.	
	bendy; waterproof/not	glasses & egg timers.	measurements using standard	measurements using standard	Recording data and results of	
	waterproof	Performing simple tests e.g.	units, using a range of	units, using a range of	increasing complexity using	
	Observing closely, using simple	testing which materials are	equipment, including	equipment.	scientific diagrams and labels,	
	equipment <i>e.g. magnifying</i>	waterproof, the strongest	thermometers and data	Gathering, recording,	classification keys, tables,	
	glasses & egg timers.	Identifying and classifying e.g.	loggers	classifying and presenting data	scatter graphs, bar and line	
	Performing simple tests e.g.	materials according to their	Gathering, recording,	in a variety of ways to help in	graphs.	
	testing which materials are	properties	classifying and presenting data	answering questions.	Using test results to make	
	waterproof, the strongest	Using their observations and	in a variety of ways to help in	Recording findings using simple	predictions to set up further	
	Identifying and classifying e.g.	ideas to suggest answers to	answering questions	scientific language, drawings,	comparative and fair tests.	
	materials according to their	questions e.g. using their	Recording findings using simple	labelled diagrams, keys, bar	Reporting and presenting	
	properties	senses	scientific language, drawings,	charts, and tables.	findings from enquiries,	
	Using their observations and	Gathering and recording data	labelled diagrams, keys, bar	Reporting on findings from	including conclusions, causal	
	ideas to suggest answers to	to help in answering questions	charts, and tables	enquiries, including oral and	relationships and explanations	
	questions e.g. discuss what	using simple scientific	Reporting on findings from	written explanations, displays	of and degree of trust in	
	they can see, touch, smell, hear	language. e.g. Create a chart,	enquiries, including oral and	or presentations of results and	results, in oral and written	
	or taste to observe	table, diagram etc. to record	written explanations, displays	conclusions.	forms such as displays and	
	Gathering and recording data	class data to find the amounts	or presentations of results and	Using results to draw simple	other presentations.	
	to help in answering questions	of fruit/veg eaten for a week.	conclusions	conclusions, make predictions	Identifying scientific evidence	
	using simple scientific language		Using results to draw simple	for new values, suggest	that has been used to support	
	e.g. from experiments using		conclusions, make predictions	improvements and raise	or refute ideas or arguments.	
	pictures, labels, captions and a		for new values, suggest	further questions.		
	simple chart, table or IT.		improvements and raise	Identifying differences,		
			further questions	similarities or changes related		
			Identifying differences,	to simple scientific ideas and		
			similarities or changes related	processes.		
			to simple scientific ideas and	Using straightforward scientific		
			processes	evidence to answer questions		
			Using straightforward scientific	to support their findings.		
			evidence to answer questions			
Distri	Asking simple questions use	Asking simple questions use	or to support their findings.  Asking relevant questions and	Asking relevant questions and	Planning different types of	Planning different types of
Plants	Asking simple questions, use secondary uses and recognise	Asking simple questions, use secondary uses and recognise	using different types of	Asking relevant questions and using different types of	Planning different types of	Planning different types of scientific enquiries to answer
	_	that they can be answered in		scientific enquiries to answer	scientific enquiries to answer	-
	that they can be answered in different ways e.g. Talk about	different ways e.g. Talk about	scientific enquiries to answer them	them.	questions, including recognising and controlling	questions, including recognising and controlling
1	what they found out and how	what they found out and how	Setting up simple practical	Setting up simple practical	variables where necessary.	variables where necessary.
Living	they found it, books, IT	they found it, books, IT	enquiries, comparative and fair	enquiries, comparative and fair	Taking measurements, using a	Taking measurements, using a
things and	Observing closely, using simple	Observing closely, using simple	tests	tests.	range of scientific equipment,	range of scientific equipment,
their	equipment e.g. magnifying	equipment e.g. magnifying	Making systematic and careful	Making systematic and careful	with increasing accuracy and	with increasing accuracy and
	glasses to observe a variety of	glasses & egg timers.	observations and, where	observations and, where	precision, taking repeat	precision, taking repeat
habitats	plants, seeds, petals, leaves	Performing simple tests e.g.	appropriate, taking accurate	appropriate, taking accurate	readings when appropriate.	readings when appropriate.
	p.a.r.o, occas, petais, reaves	Can plants survive without	measurements using standard	measurements using standard	. addings when appropriate.	. cadings when appropriate.
		can plants survive without	measurements using standard	measurements using stanual u		

	Comparing and contrasting	water? Carry out a fair and or	units, using a range of	units, using a range of	Recording data and results of	Recording data and results of
	familiar plants using simple	comparative experiments.	equipment, including	equipment.	increasing complexity using	increasing complexity using
	, , ,	Identifying and classifying e.g.	thermometers and data	Gathering, recording,	scientific diagrams and labels,	scientific diagrams and labels,
	scientific language e.g. petals,	living and dead things	loggers	classifying and presenting data	classification keys, tables,	classification keys, tables,
	leaf, bulb, flower, seed, stem &	Using their observations and	Gathering, recording,	in a variety of ways to help in	scatter graphs, bar and line	scatter graphs, bar and line
	root.	ideas to suggest answers to	classifying and presenting data	answering questions.	graphs.	graphs.
	Identifying and classifying e.g.	questions e.g. senses, scientific	in a variety of ways to help in	Recording findings using simple	Using test results to make	Using test results to make
	simple groups of fruits &	language, make comparisons	answering questions	scientific language, drawings,	predictions to set up further	predictions to set up further
	flowers	Gathering and recording data	Recording findings using simple	labelled diagrams, keys, bar	comparative and fair tests.	comparative and fair tests.
	Using their observations and	to help in answering questions	scientific language, drawings,	charts, and tables.	Reporting and presenting	Reporting and presenting
	ideas to suggest answers to	using simple scientific language	labelled diagrams, keys, bar	Reporting on findings from	findings from enquiries,	findings from enquiries,
	questions e.g. discuss what	e.g. Create a chart, table,	charts, and tables	enquiries, including oral and	including conclusions, causal	including conclusions, causal
	they can see, touch, smell, hear	diagram etc. to record class	Reporting on findings from	written explanations, displays	relationships and explanations	relationships and explanations
	or taste to observe	data to find the amounts of	enquiries, including oral and	or presentations of results and	of and degree of trust in	of and degree of trust in
	Gathering and recording data	fruit/veg eaten for a week.	written explanations, displays	conclusions.	results, in oral and written	results, in oral and written
	to help in answering questions using simple scientific language		or presentations of results and conclusions	Using results to draw simple conclusions, make predictions	forms such as displays and other presentations.	forms such as displays and other presentations.
	e.g. through a simple seasons		Using results to draw simple	for new values, suggest	Identifying scientific evidence	Identifying scientific evidence
	chart.		conclusions, make predictions	improvements and raise	that has been used to support	that has been used to support
			for new values, suggest	further questions.	or refute ideas or arguments.	or refute ideas or arguments.
			improvements and raise	Identifying differences,		
			further questions	similarities or changes related		
			Identifying differences,	to simple scientific ideas and		
			similarities or changes related	processes.		
			to simple scientific ideas and	Using straightforward scientific		
			processes	evidence to answer questions		
			Using straightforward scientific	to support their findings.		
			evidence to answer questions			
			or to support their findings.			
Weather	Observe and talk about					
	changes in the weather and the seasons.					
	Gathering and recording data					
	to help in answering questions					
	using simple scientific					
	language. e.g making simple					
	tables and charts about the					
	weather; and making displays					
	of what happens in the world					
	around them, including day					
	length, as the seasons change.					
Forces &			Asking relevant questions and		Planning different types of	
Magnets			using different types of		scientific enquiries to answer	
0 0 0 0 0			scientific enquiries to answer them		questions, including	
			Setting up simple practical		recognising and controlling variables where necessary.	
			enquiries, comparative and fair		Taking measurements, using a	
			tests		range of scientific equipment,	
			Making systematic and careful		with increasing accuracy and	
			observations and, where		precision, taking repeat	
			appropriate, taking accurate		readings when appropriate.	
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		measurements using standard	Recording data and results of
		units, using a range of	increasing complexity using
		equipment, including	scientific diagrams and labels,
		thermometers and data	classification keys, tables,
		loggers	scatter graphs, bar and line
		Gathering, recording,	graphs.
		classifying and presenting data	Using test results to make
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		in a variety of ways to help in	predictions to set up further
		answering questions	comparative and fair tests.
		Recording findings using simple	Reporting and presenting
		scientific language, drawings,	findings from enquiries,
		labelled diagrams, keys, bar	including conclusions, causal
		charts, and tables	relationships and explanations
		Reporting on findings from	of and degree of trust in
		enquiries, including oral and	results, in oral and written
		written explanations, displays	forms such as displays and
		or presentations of results and	other presentations.
		conclusions	Identifying scientific evidence
		Using results to draw simple	that has been used to support
		conclusions, make predictions	or refute ideas or arguments.
		for new values, suggest	of refute fueas of arguments.
		improvements and raise	
		l '	
		further questions	
		Identifying differences,	
		similarities or changes related	
		to simple scientific ideas and	
		processes	
		Using straightforward scientific	
		evidence to answer questions	
		or to support their findings.	
Light		Asking relevant questions and	Planning different types of Planning different types of
Ligit		using different types of	scientific enquiries to answer scientific enquiries to answer
		scientific enquiries to answer	questions, including questions, including
		them	recognising and controlling recognising and controlling
		Setting up simple practical	variables where necessary. variables where necessary.
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Space (Y5)		enquiries, comparative and fair	Taking measurements, using a Taking measurements, using a
Space (13)		tests	range of scientific equipment, range of scientific equipment,
		Making systematic and careful	with increasing accuracy and with increasing accuracy and
		observations and, where	precision, taking repeat precision, taking repeat
1		appropriate, taking accurate	readings when appropriate. readings when appropriate.
1		measurements using standard	Recording data and results of Recording data and results of
1		units, using a range of	increasing complexity using increasing complexity using
1		equipment, including	scientific diagrams and labels, scientific diagrams and labels,
1		thermometers and data	classification keys, tables, classification keys, tables,
		loggers	scatter graphs, bar and line scatter graphs, bar and line
		Gathering, recording,	graphs. graphs.
1		classifying and presenting data	Using test results to make  Using test results to make
1		in a variety of ways to help in	predictions to set up further predictions to set up further
		answering questions	comparative and fair tests. comparative and fair tests.
		Recording findings using simple	Reporting and presenting Reporting and presenting
		scientific language, drawings,	findings from enquiries, findings from enquiries,

	labelled diagrams, I charts, and tables Reporting on findin enquiries, including written explanation or presentations of conclusions Using results to dra conclusions, make for new values, sug improvements and further questions Identifying differen similarities or change to simple scientific processes Using straightforwate evidence to answer or to support their	gs from coral and ss, displays results and w simple oredictions gest raise  ces, ges related ideas and ord scientific questions findings.	including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations. Identifying scientific evidence that has been used to support or refute ideas or arguments.	including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations. Identifying scientific evidence that has been used to support or refute ideas or arguments.
Electricity		Asking relevant questions and using different types of scientific enquiries to answer them.  Setting up simple practical enquiries, comparative and fair tests.  Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment.  Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions.  Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.  Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.  Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.		Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.  Using test results to make predictions to set up further comparative 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. Identifying scientific evidence that has been used to support or refute ideas or arguments.

		Identifying differences,		
		similarities or changes related		
		to simple scientific ideas and		
		processes.		
		Using straightforward scientific		
		evidence to answer questions		
		to support their findings.		
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Sound		Asking relevant questions and		
		using different types of		
		scientific enquiries to answer		
		them.		
		Setting up simple practical		
		enquiries, comparative and fair		
		tests.		
		Making systematic and careful		
		observations and, where		
		appropriate, taking accurate		
		measurements using standard		
		units, using a range of		
		equipment.		
		Gathering, recording,		
		classifying and presenting data		
		in a variety of ways to help in		
		answering questions.		
		Recording findings using simple		
		scientific language, drawings,		
		labelled diagrams, keys, bar		
		charts, and tables.		
		Reporting on findings from		
		enquiries, including oral and		
		written explanations, displays		
		or presentations of results and		
		conclusions.		
		Using results to draw simple		
		conclusions, make predictions		
		for new values, suggest		
		improvements and raise		
		further questions.		
		Identifying differences,		
		similarities or changes related		
		to simple scientific ideas and		
		processes.		
		Using straightforward scientific		
		evidence to answer questions		
		to support their findings.		
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