

Highfield Primary School Progression Map 2023 - 2024

Subject: Science

Intent

At Highfield, our Science curriculum is designed to inspire pupils with a curiosity and fascination about the world around them. It will develop their scientific knowledge and conceptual understanding through the specific disciplines of biology, chemistry and physics. It will develop their scientific vocabulary which will enable children to talk about their methods and explain their findings and conclusions. The curriculum will motivate them to become effective communicators of scientific ideas, facts and data whilst enhancing their practical skills of scientific enquiry.

Implementation										
Progression of Knowledge										
EY	/FS	К	S1		K	52				
Nursery Reception		Year 1	Year 2	Year 3	Year 4	Year 5	Year 6			
Nursery children will be taught to/about:	In addition to knowledge taught in the Nursery, Reception children will be taught to/about:	In addition to EYFS knowledge, Year 1 children will be taught to/about:	In addition to EYFS and Year 1 knowledge, Year 2 children will be taught to/about:	In addition to KS1 knowledge, Year 3 children will be taught to/about:	In addition to KS1 and Year 3 knowledge, Year 4 children will be taught to/about:	In addition to KS1 and Lower KS2 knowledge, Year 5 children will be taught to/about:	In addition to KS1, Lower KS2 and Year 5 knowledge, Year 6 children will be taught to/ about:			
begin to talk about what they see, using a developing vocabulary begin to understand 'why' questions explore how things work	talk about what they see, using a wide vocabulary understand 'why' questions explore how things work and begin to discuss their findings	ask simple questions and recognise that they can be answered in different ways use simple equipment to observe closely perform simple tests	ask simple questions and recognise that they can be answered in different ways including use of scientific language from the national curriculum use simple equipment to	Year 3 children will begin to: ask relevant questions and use different types of scientific enquiries to answer them set up simple practical enquiries,	Year 4 children will securely: ask relevant questions and use different types of scientific enquiries to answer them set up simple practical enquiries,	Year 5 children will begin to: plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary take measurements,	Year 6 children will securely: plan different types of scientific enquiries to answer their own or others' questions, including recognising and controlling			
	Nursery Nursery children will be taught to/about: begin to talk about what they see, using a developing vocabulary begin to understand 'why' questions explore how things	Nursery children will be taught to/about:In addition to knowledge taught in the Nursery, Reception children will be taught to/about:begin to talk about what they see, using a developing vocabularyIn addition to knowledge taught in the Nursery, Reception children will be taught to/about:begin to talk about what they see, using a developing vocabularytalk about what they see, using a wide vocabularybegin to understand 'why' questionsunderstand 'why' explore how things work and begin to	EYFSKNurseryReceptionYear 1Nursery children will be taught to/about:In addition to knowledge taught in the Nursery, Reception children will be taught to/about:In addition to EYFS knowledge, Year 1 children will be taught to/about:begin to talk about what they see, using a developing vocabularytalk about what they see, using a wide vocabularyask simple questions and recognise that they can be answered in different ways use simple explore how things workask simple cols explore how things work and begin to discuss their findings	Progression of KnowEYFSKS1NurseryReceptionYear 1Year 2Nursery children will be taught to/about:In addition to knowledge taught in the Nursery, Reception children will be taught to/about:In addition to EYFS knowledge, Year 1 children will be taught to/about:In addition to EYFS and Year 1 children will be taught to/about:In addition to EYFS and Year 1 children will be taught to/about:begin to talk about what they see, using a developing vocabularytalk about what they see, using a wide vocabularyask simple questions and recognise that they can be answered in different waysask simple questions and recognise that they can be answered in different waysunderstand 'why' use simpleask simple equipment to observe closelyuse simpleexplore how things workwork and begin to discuss their findingsuse simpleuse simpleuse simple	Progression of KnowledgeProgression of KnowledgeEYFSKS1NurseryReceptionYear 1Year 2Year 3Nursery children will be taught to/about:In addition to knowledge taught in the Nursery, Reception children will be taught to/about:In addition to EYFS knowledge, Year 1 children will be taught to/about:In addition to KS1 knowledge, Year 2 children will be taught to/about:Vear 3 children will be taught to/about:begin to talk about what they see, using a developing vocabularytalk about what they see, using a wide vocabularyask simple questions 	Progression of KnowledgeEYFSKS1KS1NurseryReceptionYear 1Year 2Year 3Year 4Nursery children will be taught to/about:In addition to knowledge taught in the Nursery, Reception children will be taught to/about:In addition to EYFS knowledge, Year 1 children will be taught to/about:In addition to EYFS and Year 1 children will be taught to/about:In addition to EYFS and Year 2 children will be taught to/about:In addition to KS1 and Year 3 knowledge, Year 3 children will be taught to/about:In addition to KS1 and Year 4 children will be taught to/about:begin to talk about what they see, using a developing vocabularytalk about what they see, using a wide vocabularyask simple questions and recognise that they can be answered in different waysask simple questions and recognise that they can be answered in different ways including use of scientific enguiries to answer themYear 3 children will begin to:begin to understand 'why' questions work and begin to discuss their findingsexplore how things work and begin to discuss their findingsexplore how things perform simple testsask simple guipment to observe closely use simple guipment to	Progression of KnowledgeEYFSKS1KS2NurseryReceptionYear 1Year 2Year 3Year 4Year 5Nursery children will be taught to/about:In addition to knowledge taught in the Nursery, mill be taught to/about:In addition to EYFS knowledge taught in the Nursery, exception children will be taught to/about:In addition to EYFS knowledge, Year 1 children will be taught to/about:In addition to EYFS and Year 1 knowledge, Year 2 children will be taught to/about:In addition to EYFS and Year 1 knowledge, Year 2 children will be taught to/about:In addition to KS1 and Year 3 knowledge, Year 3 children will be taught to/about:In addition to KS1 and Year 3 knowledge, Year 3 children will be taught to/about:In addition to KS1 and Year 3 knowledge, Year 3 children will be taught to/about:In addition to KS1 and Year 3 knowledge, Year 3 children will be taught to/about:In addition to KS1 knowledge, Year 4 children will be taught to/about:In addition to KS1 and Year 3 knowledge, Year 4 children will be taught to/about:In addition to KS1 and Year 3 knowledge, Year 4 children will be taught to/about:In addition to K			

begin to ask questions	ask questions to find	identify and classify	including changes	comparative and fair	comparative and fair	scientific equipment,	variables where
to find out more and	out more and to check		over time	tests	tests	with increasing	necessary
to check what	what has been told to	use observations				accuracy and	
has been said to them	them	and ideas to suggest	perform simple	make systematic and	make systematic and	precision, taking	take
		answers to	comparative tests	careful observations	careful observations	repeat readings	measurements,
develop their ideas	begin to articulate	questions		and, where	and, where	when appropriate	using a range of
and thoughts into	their ideas and		identify, group and	appropriate, take	appropriate, take		scientific
sentences	thoughts in well-	gather and record	classify	accurate	accurate	record data and	equipment, with
	formed	data to help in		measurements	measurements	results of increasing	increasing
begin to describe	sentences	answering questions	use observations	using standard units,	using standard units,	complexity using	accuracy and
events in some			and ideas to suggest	using a range of	using a range of	scientific diagrams	precision, taking
detail	describe events with		answers to questions	equipment, including	equipment, including	and labels,	repeat readings
	growing detail		noticing similarities,	thermometers and	thermometers and	classification keys,	when appropriate
begin to use talk to			differences and	data loggers	data loggers	tables, scatter	
work out problems	use talk to work out		patterns			graphs, bar and line	record data and
and organise	problems and			gather, record,	gather, record,	graphs	results of
thinking and activities	organise		gather and record	classify and present	classify and present		increasing
	thinking and activities		data to help in	data in a variety	data in a variety	use test results to	complexity using
			answering questions	of ways to help in	of ways to help in	make predictions to	scientific diagrams
begin to explain how	explain how things		including from	answering questions	answering questions	set up further	and labels,
things work	work and why they		secondary sources of			comparative and fair	classification keys,
and why they might	might happen		information	record findings using	record findings using	tests	tables, scatter
happen				simple scientific	simple scientific		graphs, bar and line
	use new vocabulary in			language, drawings,	language, drawings,	report and present	graphs
begin to use new	different contexts			labelled diagrams,	labelled diagrams,	findings from	
vocabulary in				keys, bar charts, and	keys, bar charts, and	enquiries, including	use test results to
different contexts	make comments			tables	tables	conclusions, causal	make predictions
	about what they have					relationships and	to set up further
begin to make	heard and ask			report on findings	report on findings	explanations of and	comparative and
comments about	questions to clarify			from enquiries,	from enquiries,	degree of trust in	fair tests
what they have heard	their understanding			including oral and	including oral and	results, in oral and	
and ask questions to				written explanations,	written	written forms such as	report and present
clarify their				displays or	explanations,	displays and other	findings from
understanding				presentations of	displays or	presentations	enquiries, including
				results and	presentations of		conclusions, causal
				conclusions	results and	identify scientific	relationships and
					conclusions	evidence that has	explanations of and
				use results to draw		been used to support	degree of trust in
				simple conclusions,	use results to draw	or refute ideas or	results, in oral and
				make predictions for	simple conclusions,	arguments	

		new values, suggest	make predictions for	written forms such
		improvements and	new values, suggest	as
		raise further	improvements and	displays and other
		questions	raise further	presentations
		questions		presentations
			questions	
		identify differences,		describe and
		similarities or	identify differences,	evaluate their
		changes related to	similarities or	own and other
		simple scientific	changes related to	people's scientific
		ideas and processes	simple scientific	ideas related to
			ideas and processes	units in the
		use straightforward		National
		scientific evidence to	use straightforward	Curriculum
		answer questions or	scientific evidence to	(including ideas
		to support findings	answer questions or	that have changed
			to support findings	over time), using
				evidence from a
				range of sources
				group and classify
				things and
				recognise patterns
				5 1

Animals	understand basic	understand human	identify and name a	notice that animals,	identify that animals,	describe the simple	describe the changes	identify and name
including	human needs and	body parts and their	variety of common	including humans,	including humans,	functions of the	as humans develop	the main parts of
Humans	characteristics	functions	animals including	have offspring which	need the right types	basic parts	to old age	the human
(Biology)			fish, amphibians,	grow into adults	and amount of	of the digestive		circulatory system,
	learn simple	use books, pictures or	reptiles, birds and		nutrition, and that	system in humans		and describe the
	differences between	real life observation	mammals	find out about and	they cannot make			functions of the
	animals and humans	to distinguish		describe the basic	their own food;	identify the different		heart, blood
		between different	identify and name a	needs of animals,	they get nutrition	types of teeth in		vessels and
	identify and	animals based	variety of common	including humans, for	from what they eat	humans and their		blood
	role-play different	on characteristics and	animals that are	survival (water, food	identify that humans	simple functions		recognise the
	adult and young	habitats	carnivores,	and air)	and some other	construct and		impact of diet,
	human and animal		herbivores and		animals have	interpret a variety of		exercise, drugs and
	characters	understand the	omnivores	describe the	skeletons and	food chains,		lifestyle on the way
		importance of		importance for	muscles for support,	identifying		their bodies
	recognise basic	personal hygiene and	describe and	humans of exercise,	protection and	producers, predators		function
	body parts and their	healthy habits	compare the	eating the right	movement	and prey		
	uses		structure of a	amounts of different				describe the ways
	understand basic		variety of common	types of food, and				in which nutrients
	hygiene practices		animals (fish,	hygiene				and water are
			amphibians,					transported within
			reptiles, birds and					animals, including
			mammals including					humans
			pets)					
			identify, name, draw					
			and label the basic					
			parts of the human					
			body and say which					
			part of the body is					
			associated with each					
			sense					

Plants	participate in simple	identify the key	identify and name a	observe and describe	identify and describe		
(Biology)	activities like simple	features of the life	variety of common	how seeds and bulbs	the functions of		
	counting activities	cycle of plants and the	wild and garden	grow into mature	different parts of		
	when planting seeds	need for water, light,	plants, including	plants	flowering plants:		
	and caring for plants	and nutrients in plant	deciduous and		roots, stem/trunk,		
		growth	evergreen trees	find out and describe	leaves and flowers		
	identify basic parts of			how plants need			
	a plant		identify and	water, light and	explore the		
			describe the basic	a suitable	requirements of		
			structure of a	temperature to grow	plants for life and		
			variety of	and stay healthy	growth (air, light,		
			common flowering		water, nutrients		
			plants, including		from soil, and room		
			trees		to grow) and how		
					they vary from plant		
					to plant		
					•		
					investigate the way		
					in which water is		
					transported		
					within plants		
					explore the part that		
					flowers play in the		
					life cycle of flowering		
					plants, including		
					pollination, seed		
					formation and seed		
					dispersal		
					uispeisai		

Living	learn what a	understand how	explore and compare	recognise that living	describe the	describe how living
Things and	habitat is and	different habitats	the differences	things can be	differences in the life	things are classified
-	experience diverse	meet the needs of	between things that	grouped in a variety	cycles of a mammal,	into broad groups
their	natural phenomena	the animals or plants	are living, dead, and	of ways	an amphibian, an	according to
Habitats	natural prenomena	living there	things that have	or mays	insect and a bird	common
(Biology)	recognise that	inving there	never been alive	explore and use	mocel and a bird	observable
	different animals live	identify changes in	never been anve	classification keys to	describe the life	characteristics and
	in different places	habitats across	identify that most	help group, identify	process of	based on
	in unreferit places	seasons	living things live in	and name a variety	reproduction in some	similarities and
		36430113	habitats to which	of living things in	plants and animals	differences,
			they are suited and	their local and	plants and animals	including micro-
			describe how	wider environment		organisms,
			different habitats	wider environment		plants and animals
			provide for the basic	recognise that		plants and animals
			needs of different	environments can		give reasons for
			kinds of animals and	change and that this		classifying plants
			plants, and how they	-		and animals based
				can sometimes pose		
			depend on each other	dangers to living		on specific characteristics
				things		characteristics
			identify and name a			
			variety of plants and animals in their			
			habitats, including			
			microhabitats			
			describe how animals			
			obtain their food			
			from plants			
			and other animals,			
			using the idea of a			
			simple food chain,			
			and identify and			
			name different			
			sources of food			
1						
I						

Evolution and Inheritance (Biology)						recognise that living things have changed over time and that fossils provide information about living things that inhabited the earth millions of years ago
						recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents
						identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution
Seasonal Changes (Physics)	notice changes in the weather and seasons, experience different types of weather	identify the cycle of seasons and how it affects the world around them describe different types of weather and how it changes	observe changes across the 4 seasons observe and describe weather associated with the seasons and how day length varies			

Forces	experience and	explore the impact of		compare how things	explain that	
(Physics)	observe simple forces	different forces on		move on different	unsupported	
	e.g. pushing and	objects e.g. floating		surfaces	objects fall towards	
	pulling objects,	and sinking,			the earth because of	
	playing with building	introduction to		notice that some	the force of gravity	
	blocks	magnetism through		forces need contact	acting between the	
		play		between 2 objects,	earth and the falling	
				but magnetic forces	object	
				can act at a distance	identify the effects of	
					air resistance, water	
				observe how	resistance and	
				magnets attract or	friction, that act	
				repel each other	between moving	
				and attract some	surfaces	
				materials and not		
				others	recognise that some	
					mechanisms	
				compare and group	including	
				together a variety of	levers, pulleys and	
				everyday materials	gears allow a smaller	
				on the basis of	force to have a	
				whether they	greater effect	
				are attracted to a		
				magnet, and identify		
				some magnetic		
				materials		
				describe magnets as		
				having 2 poles		
				predict whether 2		
				magnets will attract		
				or repel each other,		
				depending on which		
				poles are facing		
				,		

Light	recognise the	understand how light		recognise that they		recognise that light
(Physics)	difference between	interacts with		need light in order to		appears to travel in
	light and dark	different surfaces and		see things and that		straight lines
		explore the concept of		dark is the absence		
	notice light sources	shadows		of light		use the idea that
	such as torches, light					light travels in
	up toys and room			notice that light is		straight lines to
	lights			reflected from		explain that objects
	-			surfaces		are seen because
	notice shadows					they give out or
				recognise that light		reflect light into
				from the sun can be		the eye
				dangerous and that		explain that we see
				there are ways to		things because light
				protect their eyes		travels from light
						sources to our eyes
				recognise that		or from light
				shadows are formed		sources to objects
				when the light from a		and then to our
				light source is		eyes
				blocked by an		
				opaque object		use the idea that
						light travels in
				find patterns in the		straight lines to
				way that the size of		explain why
				shadows change		shadows have
						the same shape as
						the objects that
						cast them
l						
l						
l						

Sound	enjoy making sounds	understand how		identify how sounds	
	with their voice and	sounds can be		are made,	
(Physics)					
	different objects	changed and match		associating some of	
		sounds to their		them with	
	recognise loud	sources		something vibrating	
	and soft sounds				
				recognise that	
	pitch matching			vibrations from	
				sounds travel	
				through a medium to	
				the ear	
				find patterns	
				between the pitch of	
				a sound and features	
				of the object that	
				produced it	
				find patterns	
				between the	
				volume of a sound	
				and the strength of	
				the vibrations that	
				produced it	
				produced it	
				wasaa an ina tihat	
				recognise that	
				sounds get fainter as	
				the distance from	
				the sound source	
				increases	

Earth and Space (Physics)				describe the movement of the Earth and other planets relative to the Sun in the solar system	
				describe the movement of the Moon relative to the Earth	
				describe the Sun, Earth and Moon as approximately spherical bodies	
				use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky	

El a studiates	problem solve,	understand the safety		identify common	associate the
Electricity		-		-	
(Physics)	interact with and	aspects of using		appliances that run	brightness of a
	explore simple	electricity		on electricity	lamp or the volume
	electrical toys				of a buzzer with the
		know that batteries or		construct a simple	number and
		electricity can make		series electrical	voltage of cells
		some toys and		circuit, identifying	used in the circuit
		appliances work		and naming its basic	
				parts, including cells,	compare and give
				wires, bulbs,	reasons for
				switches and buzzers	variations in how
					components
				identify whether or	function, including
				not a lamp will light	the brightness of
				in a simple series	bulbs, the loudness
				circuit, based on	of buzzers and the
				whether or not the	on/off position of
				lamp is part of a	switches
				complete loop with	
				a battery	use recognised
					symbols when
				recognise that a	representing a
				switch opens and	simple circuit in a
				closes a circuit and	diagram
				associate this with	Ū.
				whether or not a	
				lamp lights in a	
				simple series circuit	
				recognise some	
				common conductors	
				and insulators and	
				associate metals	
				with being good	
				conductors	
				conductors	

Materials	sensory play to	understand and	distinguish between	identify and compare	compare and group	compare and group	compare and group	
(Chemistry)	explore different	describe the	an object and the	the suitability of a	together different	materials together,	together everyday	
	materials and notice	properties of different	material from which	variety of everyday	kinds of rocks on the	according to	materials on the	
	basic differences	materials	it is made	materials, including	basis of their	whether they are	basis of their	
				wood, metal, plastic,	appearance and	solids, liquids or	properties, including	
		recognise changes in	identify and name a	glass, brick, rock,	simple physical	gases	their hardness,	
		materials under	variety of everyday	paper and cardboard	properties		solubility,	
		different conditions	materials, including	for particular uses		observe that some	transparency,	
			wood, plastic, glass,		describe in simple	materials change	conductivity	
		select materials based	metal, water, and	find out how the	terms how fossils are	state when they are	(electrical and	
		on their properties	rock	shapes of solid	formed when things	heated or cooled,	thermal), and	
				objects made from	that have lived are	and measure or	response to magnets	
		observe simple	describe the simple	some materials can	trapped within rock	research the		
		changes of state e.g.,	physical properties	be changed by	recognise that soils	temperature at	know that some	
		ice melting	of a variety of	squashing, bending,	are made from rocks	which this happens	materials will	
			everyday materials	twisting and	and organic matter	in degrees Celsius	dissolve in liquid to	
				stretching		(°C)	form a solution, and	
			compare and group				describe how to	
			together a variety of			identify the part	recover a substance	
			everyday materials			played by	from a solution	
			on the basis of their			evaporation and		
			simple physical			condensation in the	use knowledge of	
			properties			water cycle and	solids, liquids and	
						associate the rate of	gases to decide how	
						evaporation with	mixtures might be	
						temperature	separated, including	
							through filtering,	
							sieving and	
							evaporating	
							give reasons, based	
							on evidence from	
							comparative and fair	
							tests, for the	
							particular uses of	
							everyday materials,	
							including metals,	
							wood and plastic	
							demonstrate that	
							comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic	

						dissolving, mixing and changes of state are reversible changes explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda	
Scientists and Inventors		famous scientists and inventors linked to the Year 1 Science curriculum – focus on Mae Jemison, first African American woman to go into space	famous scientists and inventors linked to the Year 2 Science curriculum - focus on Tim Smit & Nicholas Grimshaw (Eden Project), Plants Unit	famous scientists and inventors linked to the Year 3 Science curriculum - Marie Curie and the use of X-rays	famous scientists and inventors linked to the Year 4 Science curriculum - Alexander Graham Bell, links to History (Victorians)	famous scientists and inventors linked to the Year 5 Science curriculum - Margaret Hamilton, Space Unit,	famous scientists and inventors linked to the Year 6 Science curriculum - Dr Daniel Hale Williams first successful heart surgeon and Marie Maynard Daly, first African American woman to receive a PHD in chemistry in the U.S.A, Animals including Humans (circulatory system)

	Impact (End points)									
	Nursery	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6		
By end of the	Children in Nursery will be able to:	Children in Reception will be able to:	Children in Year 1 will be able to begin to:	Children in Year 2 will be able to:	Children in Year 3 will be able to begin to:	Children in Year 4 will be able to:	Children in Year 5 will be able to begin to:	Children in Year 6 will be able to:		
Summer Term	> understand 'why' questions	> ask questions to find out more and to check what has been said to	> ask simple scientific questions/ use simple	 > ask simple scientific questions/use simple equipment to make 	> ask relevant scientific questions/ use observations and	 > ask relevant scientific questions/ use observations and 	> plan different types of scientific enquiry/ control variables in	> plan different types of scientific enquiry/ control		
	> make healthy choices about food, drink, activity and tooth brushing	them/ articulate their ideas and thoughts in well-formed sentences/ describe	equipment to make observations/carry out simple tests/ identify and classify	observations/carry out simple tests/ identify and classify things/suggest what	knowledge to answer scientific questions/set up a simple enquiry to	knowledge to answer scientific questions/ set up a simple enquiry to	an enquiry/ measure accurate and precisely using a range of equipment/	variables in an enquiry/ measure accurate and precisely using a		
	> use all their senses in hands-on exploration of natural materials/ explore	events in some detail/ use talk to help work out problems and organise thinking and activities, and to	things/suggest what they have found out/use simple data to answer questions	they have found out/ use simple data to answer questions > identify things that	explore a scientific question/set up a test to compare two things/ set up a fair test and explain why	explore a scientific question/set up a test to compare two things/ set up a fair test and explain why	record data and results using scientific diagrams and labels, classification keys,	range of equipment/ record data and results using scientific diagrams and		
	collections of materials with similar and/or different properties	explain how things work and why they might happen/ use new vocabulary in	> name a variety of common wild and garden plants/name the petals, stem,	are living, dead and never lived/describe how a specific habitat provides for	it is fair/ make careful and accurate observations, including the use of	it is fair/ make careful and accurate observations, including the use of	tables, scatter graphs, bar and line graphs/use the outcome of test	labels, classification keys, tables, scatter graphs, bar and line		
	> talk about what they see, using a wide vocabulary	different contexts ELG: > make comments about what they have heard and ask	leaf and root of a plant/name the roots, trunk, branches and leaves of a tree	the basic needs of things living there (plants and animals)/ identify and name plants and animals in	standard units/use equipment, including thermometers and data loggers to make measurements/	standard units/use equipment, including thermometers and data loggers to make measurements/	results to make predictions and set up a further comparative fair test/ report findings	graphs/ use the outcome of test results to make predictions and set up a further		
	> begin to make sense of their own life-story and family's history	questions to clarify their understanding > know and talk about	 name a variety of animals including fish, amphibians, 	a range of habitats/ match living things to their habit/describe how animals find	gather, record, classify and present data in different ways to	gather, record, classify and present data in different ways to	from enquiries in a range of ways/ explain a conclusion from an enquiry/	comparative fair test/ report findings from enquiries in a range		
	 > explore how things work > plant seeds and care 	the different factors that support their overall health and wellbeing (regular	reptiles birds and mammals/classify and name animals by what they eat	their food, name some different sources of food for animals/explain a	answer scientific questions/ use diagrams, keys, bar charts and tables;	answer scientific questions/use diagrams, keys, bar charts and tables;	explain causal relationships in an enquiry/ relate the outcome from an	of ways/ explain a conclusion from an enquiry/ explain causal relationships		
	for growing plants	physical activity, healthy eating, tooth brushing, sensible	(carnivore, herbivore and omnivore)/sort	simple food chain	using scientific language/use findings to report in	using scientific language/use findings to report in	enquiry to scientific knowledge in order to state whether	in an enquiry/ relate the outcome from an enquiry to		
	> understand the key features of the life				0 0 .		-			

cycle of a plant and an	time', having a good	animals into	> describe how seeds	including oral and	including oral and	refutes an argument	knowledge in order
animal	sleep routine, being a	categories	and bulbs grow into	written explanations,	written	or theory/ read, spell	to state whether
	safe pedestrian)	(including fish,	plants/ describe	presentation/ draw	explanations,	and pronounce	evidence supports
> begin to understand	•	amphibians,	what plants need in	conclusions and	presentation/ draw	scientific vocabulary	or refutes an
the need to respect	E.L.G.:	reptiles, birds and	order to grow and	suggest	conclusions and	accurately	argument or
and care for the	> manage their own	mammals)/sort	stay healthy (water,	improvements/make	suggest		theory/ read, spell
natural environment	basic hygiene and	living and non-living	light & suitable	a prediction with a	improvements/	> describe the life	and pronounce
and all living things	personal needs,	things/name the	temperature)	reason/ identify	make a prediction	cycle of different	scientific
	including dressing,	parts of the human		differences,	with a reason/	living things, e.g.	vocabulary
> explore and talk	going to the toilet and	body that they can	> explain the basic	similarities and	identify differences,	mammal, amphibian,	accurately
about different forces	understanding the	see/link the correct	stages in a life cycle	changes related to an	similarities and	insect bird/ describe	
they can feel	importance of healthy	part of the human	for animals, including	enquiry	changes related to	the differences	> classify living
	food choices	body to each sense	humans/describe		an enquiry	between different	things into broad
> talk about the			what animals and	> describe the		life cycles/ describe	groups according to
differences between	> explore the natural	> distinguish	humans need to	function of different	> group living things	the process of	observable
materials and changes	world around them/	between an object	survive/describe why	parts of flowering	in different ways/	reproduction in	characteristics and
they notice	describe what they	and the material it is	exercise, a balanced	plants and trees/	use classification	plants/ describe the	based on
	see, hear and feel	made from/explain	diet and good	explore and describe	keys to group,	process of	similarities &
	while they are	the materials that	hygiene are	the needs of	identify and name	reproduction in	differences/
	outside/ recognise	an object is made	important for	different plants for	living things/ create	animals	describe how living
	some environments	from/name wood,	humans	survival/ explore and	classification keys to		things have been
	that are different to	plastic, glass, metal,		describe how water	group, identify and	> create a timeline to	classified/ give
	the one in which they	water and rock	> identify and name a	is transported within	name living things	indicate stages of	reasons for
	live/ understand the	describe the	range of materials,	plants/ describe the	(for others to use)/	growth in humans	classifying plants
	effect of changing	properties of	including wood,	plant life cycle,	describe how		and animals in a
	seasons on the	everyday materials/	metal, plastic, glass,	especially the	changes to an	> can compare and	specific way
	natural world around	group objects based	brick, rock, paper and	importance of	environment could	group materials	
	them	on the materials	cardboard/ suggest	flowers	endanger living	based on their	> identify and
		they are made from	why a material might		things	properties (e.g.	name the main
	E.L.G.:		or might not be used	> explain the		hardness, solubility,	parts of the human
	> explore the natural	> observe and	for a specific job/	importance of a	> identify and name	transparency,	circulatory system/
	world around them,	comment on	explore how shapes	protected nutritious,	parts of the human	conductivity,	describe the
	making observations	changes in the	can be changed by	balanced diet/	digestive system/	[electrical &	function of the
	and drawing pictures	seasons/name the	squashing, bending,	explain how	describe the	thermal], and	heart, blood
	of animals and plants	seasons and suggest	twisting and	nutrients, water and	functions of the	response to	vessels and blood/
		the type of weather	stretching	oxygen are	organs in the human	magnets)/ describe	discuss the impact
	> know some	in each season		transported within	digestive system/	how a material	of diet, exercise,
	similarities and			animals and humans/	identify and describe	dissolves to form a	drugs and life style
	differences between			describe and explain	the different types of	solution; explaining	on health/ describe
	the natural world			the skeletal system	teeth in humans/	the process of	the ways in which

· · · · · · · · · · · · · · · · · · ·		· · · · ·					
	around them and	> to discuss the	> to discuss the	of a human/ describe	describe the	dissolving / describe	nutrients and
	contrasting	scientific	scientific	and explain the	functions of the	and show how to	water are
	environments,	contributions and	contributions and the	muscular system of a	different human	recover a substance	transported in
	drawing on their	the impact that Mae	impact that Tim Smit	human/ describe the	teeth/use food	from a solution/	animals, including
	experiences and what	Jemison has had on	and Nicholas	purpose of the	chains to identify	describe how some	humans
	has been read in class	modern day science,	Grimshaw have had	skeleton in humans	producers, predators	materials can be	
		in terms of both	on modern day	and animals	and prey/construct	separated/	> describe how the
	> understand some	historical and	science, in terms of		food chains to	demonstrate how	earth and living
	important processes	cultural contexts	both historical and	> compare and group	identify producers,	materials can be	things have
	and changes in the		cultural contexts	rocks based on their	predators and prey	separated (e.g.	changed over time/
	natural world around			appearance and		through filtering,	explain how fossils
	them, including the			physical properties,	> group materials	sieving and	can be used to find
	seasons and changing			giving a reason/	based on their state	evaporating)/ know	out about the past/
	states of matter			describe how fossils	of matter (solid,	and can demonstrate	explain about
				are formed/ describe	liquid, gas)/describe	that some changes	reproduction and
				how soil is made/	how some materials	are reversible and	offspring
				describe and explain	change state/	some are not/	(recognising that
				the difference	explore how	explain how some	offspring normally
				between	materials change	changes result in the	vary and are not
				sedimentary and	state/describe the	formation of a new	identical to their
				igneous rock	water cycle/explain	material and that this	parents)/ explain
					the part played by	is usually	how animals and
				> describe what dark	evaporation and	irreversible/discuss	plants are adapted
				is (the absence of	condensation in	reversible and	to suit their
				light)/ explain that	the water cycle	irreversible changes/	environment/ link
				light is needed in		give evidenced	adaptation over
				order to see/ explain	> describe how	reasons why	time to evolution/
				that light is reflected	sound is made/	materials should be	explain evolution
				from a surface/	explain how sound	used for specific	
				explain and	travels from a source	purposes	> explain how light
				demonstrate how a	to our ears/ explain		travels/ explain
				shadow is formed/	the place of	> describe and	and demonstrate
				explore shadow size/	vibration in hearing/	explain the	how we see
				explain the danger of	explore the	movement of the	objects/ explain
				direct sunlight and	correlation between	Earth and other	why shadows have
				describe how to keep	pitch and the object	planets relative to	the same shape as
				protected	producing a sound/	the Sun/ describe	the object that
				protected	explore the	and explain the	casts them/ explain
					correlation between	movement of the	how simple optical
					the volume of a	Moon relative to the	instruments work,
					the volume of a	woon relative to the	mstruments work,

		> explore and	sound and the	Earth/ explain and	e.g. periscope,
		describe how	strength of the	demonstrate how	telescope,
		objects move on	vibrations that	night and day are	binoculars, mirror,
		different surfaces/	produced it/	created/ describe the	magnifying glass
		explain how some	describe what	Sun, Earth and Moon	etc.
		forces require	happens to a sound	(using the term	
		contact and some do	as it travels away	spherical)	> explain how the
		not, giving examples/	from its source		number & voltage
		explore and explain		> explain what	of cells in a circuit
		how objects attract	> identify and name	gravity is and its	links to the
		and repel in relation	appliances that	impact on our lives/	brightness of a
		to objects and other	require electricity to	identify and explain	lamp or the volume
		magnets/ predict	function/ construct a	the effect of air	of a buzzer/
		whether objects will	series circuit/	resistance/ identify	compare and give
		be magnetic and	identify and name	and explain the	reasons for why
		carry out an enquiry	the components in a	effect of water	components work
		to test this out/	series circuit	resistance/ identify	and do not work in
		describe how	(including cells,	and explain the	a circuit/ draw
		magnets work/	wires, bulbs,	effect of friction/	circuit diagrams
		predict whether	switches and	explain how levers,	using correct
		magnets will	buzzers)/ draw a	pulleys and gears	symbols
		attract or repel and	circuit diagram/	allow a smaller force	
		give a reason	predict and test	to have a greater	> to discuss the
			whether a lamp will	effect	scientific
		> to discuss the	light within a circuit/		contributions and
		scientific	describe the function	> to discuss the	the impact that Dr.
		contributions and the	of a switch in a	scientific	Daniel Hale and
		impact that Marie	circuit/ describe the	contributions and the	Marie Maynard
		Curie has had on	difference	impact that Margaret	Daly have had on
		modern day science,	between a	Hamilton has had on	, modern day
		in terms of both	conductor and	modern day science,	, science, in terms of
		historical and cultural	insulators; giving	in terms of both	both historical and
		contexts	examples of each	historical and cultural	cultural contexts
				contexts	

			> to discuss the	
			scientific	
			contributions and	
			the impact that	
			Alexander Graham	
			Bell has had on	
			modern day science,	
			in terms of both	
			historical and	
			cultural contexts	