

		Р	lants			
Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Make observations of plants and explain why some things occur, and talk about change	Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees  Identify and describe the basic structure of a variety of common flowering plants, including trees.	Observe and describe how seeds and bulbs grow into mature plants  Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.	Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers - explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant			(see Evolution and inheritance)
			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.			
		Animals in	cluding humans			
Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Make observations of animals	Identify and	Notice that	Identify that	Describe the	Describe the	Identify and
and explain why some things	name a variety	animals, including	animals, including	simple functions	changes as	name the main
occur	of common	humans, have	humans, need	of the basic parts	humans develop	parts of the
	animals	offspring which	the right types	of the digestive	to old age.	human
Talk about changes to animals	including fish,	grow into adults	and amount of	system in humans		circulatory
	amphibians,		nutrition, and	identify the		system, and
	reptiles, birds	Find out about	that they cannot	different types of		describe the
	and mammals	and describe the	make their own	teeth in humans		functions of the
	identify and	basic needs of	food; they get	and their simple		heart, blood
	name a variety	animals, including	nutrition from	functions		vessels and blood
	of common	humans, for	what they eat			
	animals that are	survival (water,		Construct and		Recognise the
	carnivores,	food and air)	Identify that	interpret a variety		impact of diet,
	herbivores and		humans and	of food chains,		exercise, drugs
	omnivores	Describe the	some other	identifying		and lifestyle on
		importance for	animals have	producers,		the way their
	Describe and	humans of	skeletons and	predators and		bodies function
	compare the	exercise, eating	muscles for	prey.		
	structure of a	the right amounts	support,			Describe the
	variety of	of different types	protection and			ways in which
	common animals	of food, and	movement.			nutrients and
	(fish,	hygiene.				water are
	amphibians,					transported
	reptiles, birds					within animals,

	and mammals, including 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					including humans.  (see also Evolution and inheritance)
		Living things a	and their habitats			
Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Know about similarities and differences in relation to living things  Talk about the features of their own immediate environment and how environments might vary from one another		Explore and compare the differences between things that are living, dead, and things that have never been alive  Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of		Recognise that living things can be grouped in a variety of ways  Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment  Recognise that environments can change and that this can	Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird  Describe the life process of reproduction in some plants and animals.	Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals  Give reasons for classifying plants and animals

		plants, and how they depend on each other  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.		dangers to living things.		based on specific characteristics. (see also Evolution and inheritance)
		Sea	sonal Changes			
Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Look closely at similarities, differences, patterns and change- in relation to the four seasons when different weather occurs	Observe changes across the four seasons Observe and describe weather					

	associated with					
	the seasons and					
	how day length					
	varies					
Fve		.)/ Uses of everyday r	naterials (V2)/ Prone	erties and changes o	f materials (V5)	
	ryddy materiais (12	in oses of everyday.	naterials (12)/ 110pt	er tres una changes o	r materials (13)	
Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Know about similarities and	Distinguish	Identify and			Compare and	
differences between different	between an	compare the			group together	
materials	object and the	suitability of a			everyday	
	material from	variety of			materials on the	
Make observations and talk about	which it is made	everyday			basis of their	
why some things occur, and talk		materials,			properties,	
about changes	Identify and	including wood,			including their	
	name a variety	metal, plastic,			hardness,	
Know the properties of some	of everyday	glass, brick, rock,			solubility,	
materials and suggest some of	materials,	paper and			transparency,	
the purposes they may be used	including wood,	cardboard for			conductivity	
for.	plastic, glass,	particular uses			(electrical and	
	metal, water,				thermal), and	
	and rock	Find out how the			response to	
		shapes of solid			magnets	
	Describe the	objects made from				
	simple physical	some materials			Know that some	
	properties of a	can be changed by			materials will	
	variety of	squashing,			dissolve in liquid	
	everyday	bending, twisting			to form a	
	materials	and stretching.			solution, and	
	Compare and				Describe how to	
	group together a				recover a	
	variety of					

everyday	substance from a
materials on the	solution
basis of their	
simple physical	Use knowledge
properties.	of solids, liquids
	and gases to
	decide how
	mixtures might
	be 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 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.	
			Rocks			
				T	ı	
Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
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			Compare and			
			Compare and			(see Evolution
			group together			
			group together different kinds of			(see Evolution
			group together different kinds of rocks on the basis			(see Evolution
			group together different kinds of rocks on the basis of their			(see Evolution
			group together different kinds of rocks on the basis of their appearance and			(see Evolution
			group together different kinds of rocks on the basis of their appearance and simple physical			(see Evolution
			group together different kinds of rocks on the basis of their appearance and			(see Evolution
			group together different kinds of rocks on the basis of their appearance and simple physical			(see Evolution
			group together different kinds of rocks on the basis of their appearance and simple physical properties			(see Evolution
			group together different kinds of rocks on the basis of their appearance and simple physical properties  Describe in			(see Evolution
			group together different kinds of rocks on the basis of their appearance and simple physical properties  Describe in simple terms how			(see Evolution

			trapped within			
			rock			
			Recognise that			
			soils are made			
			from rocks and			
			organic matter.			
			Light			
			Ligit			
Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
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						5
			Recognise that			Recognise that
			they need light in			light appears to
			order to see			travel in straight
			things and that			lines
			dark is the			
			absence of light			Use the idea that
						light travels in
			Notice that light			straight lines to
			is reflected from			explain that
			surfaces			objects are seen
						because they give
			Recognise that			out or reflect light
			light from the sun			into the eye
			can be dangerous			
			and that there			Explain that we
			are ways to			see things
			protect their eyes			because light
						travels from light
			Recognise that			sources to our
			shadows are			eyes or from light
			formed when the			sources to objects

			light from a light source is blocked by a solid object  Find patterns in the way that the size of shadows change			and then to our eyes  Use the idea that light travels in straight lines to explain why shadows have the
			change			same shape as the objects that
		Forces and r	magnets (Y3)/ Forces	(Y5)		cast them.
Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Develop ideas of grouping,			Compare how		Explain that	
sequences, cause and effect- in			things move on		unsupported	
relation to movement i.e. toys, cars, rough surfaces			different surfaces		objects fall towards the	
cars, rough surfaces			Notice that some		Earth because of	
Familiar with the basic scientific			forces need		the force of	
concepts of floating, sinking and			contact between		gravity acting	
experimentation			two objects, but		between the	
			magnetic forces		Earth and the	
			can act at a		falling object	
			distance		lalametifi. ela	
			Observe how		Identify the effects of air	
			magnets attract		resistance, water	
			or repel each		resistance and	
			other and attract		friction, that act	

			some materials		between moving	
			and not others		surfaces	
			Compare and		December that	
			Compare and		Recognise that	
			group together a		some	
			variety of		mechanisms,	
			everyday		including levers,	
			materials on the		pulleys and	
			basis of whether		gears, allow a	
			they are		smaller force to	
			attracted to a		have a greater	
			magnet, and		effect.	
			identify some			
			magnetic			
			materials			
			Describe magnets			
			as having two			
			poles			
			Predict whether			
			two magnets will			
			attract or repel			
			each other,			
			depending on			
			which poles are			
			facing.			
		St	ates of matter			
Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
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1		T	
		Compare and	
		group materials	
		together,	
		according to	
		whether they are	
		solids, liquids or	
		gases	
		0	
		Observe that	
		some materials	
		change state	
		when they are	
		heated or cooled,	
		and measure or	
		research the	
		temperature at	
		which this	
		happens in	
		degrees Celsius	
		(°C)	
		Identify the part	
		played by	
		evaporation and	
		condensation in	
		the water cycle	
		and associate the	
		rate of	
		evaporation with	
		temperature	
<u> </u>	Carrad	temperature	

Sound

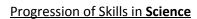
Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
				Identify how		
				sounds are made,		
				associating some		
				of them with		
				something		
				vibrating		
				Recognise that		
				vibrations from		
				sounds travel		
				through a		
				medium to the		
				ear		
				Find patterns		
				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		
				1		

				Recognise that		
				sounds get fainter		
				as the distance		
				from the sound		
				source increases		
			Electricity			
Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
				Identify common		Associate the
			•	appliances that		brightness of a
				run on electricity		lamp or the
				run on electricity		volume of a
				Constants		
				Construct a		buzzer with the
				simple series		number and
				electrical circuit,		voltage of cells
				identifying and		used in the circuit
				naming its basic		
				parts, including		Compare and give
				cells, wires, bulbs,		reasons for
				switches and		variations in how
				buzzers		components
						function,
				Identify whether		including the
				or not a lamp will		brightness of
				light in a simple		bulbs, the
				series circuit,		loudness of
				based on whether		buzzers and the
				or not the lamp is		on/off position of
				part of a		switches
				complete loop		
				with a battery		

				Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit  Recognise some common conductors and insulators, and associate metals with being good conductors.		Use recognised symbols when representing a simple circuit in a diagram.
			rth and Space			-
Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
					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.	
		Evoluti	on and Inheritance			
(note for Year 6 – se	e Plants; Animals, includi		hings and their habit ower down the schoo		w some of these as	oects have been
Early Years	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
						Recognise that living things have changed over time and that fossils provide information about living things that inhabited the

					Earth millions of years ago
					vears ago
					70013 080
					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
	Working Scientifical	ly- Ongoing through	out the year		
	Working Scientifical	iy Ongoing through	out the year		
Early Years Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Observing: Know that we	Know that we can	Know that we can	Know that we can	Know how to	Know how to
Sensory observation of animals can ask	ask questions	ask questions and	ask questions and	choose	choose
and plants; simple description of questions about	about the world	answer them by	answer them by	appropriate	appropriate
the world around them. the world and	and that when we	setting up	setting up	variables to test	variables to test a
that when we	observe the world	scientific	scientific	a hypothesis	hypothesis (e.g.
Researching: observe the	to answer these	enquiries	enquiries	(e.g. plant height	plant height as a



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Looking at objects and pictures	world to answer	questions, this is			as a dependent	dependent
and discussing what they can see.	these questions,	science	Know how to	Know how to	variable when	variable when
	this is science		make relevant	make relevant	measuring effect	measuring effect
Questioning:		Know that we can	predictions that	predictions that	of light on plant	of light on plant
Ask questions about aspects of	Know that we	use magnifying	will be tested in a	will be tested in a	growth)	growth)
their familiar world	can use	glasses to observe	scientific enquiry	scientific enquiry		Know how to
	magnifying	objects closely			Know how to	identify
Planning:	glasses to	Know that we can	Know that in a	Know that in a	identify	conditions that
Generating a variety of ideas for	observe objects	test our questions	fair test one thing	fair test one thing	conditions that	were imperfectly
testing (not always realistic or	closely	to see if they are	is altered	is altered	were imperfectly	controlled and
appropriate)		true	(independent	(independent	controlled and	can explain how
	Know that we		variable) and one	variable) and one	can explain how	these might
Predicting:	can test our	Know that objects	thing that may	thing that may	these might	affect results
Simple predictions- what might	questions to see	can be identified	change as a result	change as a result	affect results	
happen?	if they are true	or sorted into	is measured	is measured		Know how to
		groups based on	(dependent	(dependent	Know how to	accurately use
Measuring:	Know that	their observable	variable) while all	variable) while all	accurately use	further
Measure by direct comparison;	objects can be	properties	other conditions	other conditions	further	measuring
non-standard units of	identified or		are kept the	are kept the	measuring	devices, including
measurement; simple	sorted into	Know that we can	same	same	devices,	digital and
comparative vocabulary i.e.	groups based on	write down			including digital	analogue scales,
bigger, smaller.	their observable	numbers and	Know how to use	Know how to use	and analogue	measuring
	properties	words or draw	a range of	a range of	scales,	cylinders and
Reporting:		pictures to record	equipment to	equipment to	measuring	beakers,
Talking about objects and events;	Know that we	what we find	measure	measure	cylinders and	recognizing the
simple recording- drawing.	can write down		accurately,	accurately,	beakers,	relative accuracy
	numbers and		including	including	recognizing the	of each device
Interpreting:	words or draw		thermometers,	thermometers,	relative accuracy	
Noticing 'which worked best'-	pictures to		data loggers,	data loggers,	of each device	Know how and
simple comparative statements;	record what we		rulers and	rulers and		when to repeat
provide simple answers to initial	find		stopwatches	stopwatches	Know how and	measurements,
questions.					when to repeat	how to find an
					measurements,	average of a set

Know how to	Know how to	how to find an	of measurements
draw bar charts;	draw bar charts;	average of a set	and how to
how to label a	how to label a	of	recognize and
diagram using	diagram using	measurements	remove outliers
lines to connect	lines to connect	and how to	from a set of
information to	information to	recognize and	data, justifying
the diagram; how	the diagram; how	remove outliers	the removal as a
to use a coloured	to use a coloured	from a set of	potential
key how to draw	key how to draw	data, justifying	mis-measuremen
a neat table; how	a neat table; how	the removal as a	t
to draw a	to draw a	potential	Know how to
classification key;	classification key;	mis-measuremen	independently
how to show the	how to show the	t	write a simple
relationship	relationship		scientific enquiry
between an	between an	Know how to	write-up
independent	independent	independently	including an
variable in a	variable in a	write a simple	introduction, a
two-way table;	two-way table;	scientific enquiry	list of equipment,
and how to label	and how to label	write-up	a numbered
specific results in	specific results in	including an	method, a
a two-way table	a two-way table	introduction, a	detailing of
		list of	results and a
Know – with	Know how – with	equipment, a	conclusion
structured	structured	numbered	
guidance - how to	guidance - to	method, a	Know how to
write a simple	write a simple	detailing of	present brief oral
scientific enquiry	scientific enquiry	results and a	findings from an
write-up	write-up including	conclusion	enquiry, speaking
including an	an introduction, a		clearly and with
introduction, a	list of equipment,	Know how to	confidence and
list of equipment,	a numbered	present brief oral	using notes
a numbered	method, a	findings from an	where necessary
method, a	detailing of	enquiry,	

detailing of	results and a	speaking clearly	Know examples
results and a	conclusion	and with	of instances
conclusion		confidence and	where scientific
	Know how to	using notes	evidence has
Know how to	precis a scientific	where necessary	been used to
precis a scientific	enquiry write-up		support or refute
enquiry write-up	into a brief oral	Know examples	ideas or
into a brief oral	discussion of	of instances	arguments (e.g.
discussion of	what was found	where scientific	fossil records as
what was found	in a scientific	evidence has	evidence of
in a scientific	enquiry	been used to	natural selection)
enquiry		support or refute	
	Know that	ideas or	
Know that	scientific	arguments (e.g.	
scientific	enquiries can	fossil records as	
enquiries can	suggest	evidence of	
suggest	relationships, but	natural	
relationships, but	that they do not	selection)	
that they do not	prove whether a		
prove whether a	prediction is true		
prediction is true			
	Know that		
Know that	scientific		
scientific	enquiries are		
enquiries are	limited by the		
limited by the	accuracy of the		
accuracy of the	measurements		
measurements	(and measuring		
(and measuring	equipment) and		
equipment) and	by the extent to		
by the extent to	which conditions		
which conditions	can vary even,		
can vary even,	and that		

and that	repeating	
repeating	enquiries,	
enquiries,	measurements	
measurements	and taking	
and taking	measures to keep	
measures to keep	conditions as	
conditions as	consistent as	
consistent as	possible can	
possible can	improve an	
improve an	enquiry	
enquiry		
	Know that the	
Know that the	conclusions of	
conclusions of	scientific	
scientific	enquiries can lead	
enquiries can	to further	
lead to further	questions, where	
questions, where	results can be	
results can be	clarified or	
clarified or	extended to	
extended to	different contexts	
different contexts	(e.g. effect of	
(e.g. effect of	changing sunlight	
changing sunlight	on a plant – does	
on a plant – does	this work with	
this work with	other plants /	
other plants /	different types of	
different types of	light / etc)	
light / etc)		
	Know that they	
Know that they	can draw	
can draw	conclusions from	
conclusions from		

	the findings of	the findings of		
	other scientists	other scientists		
	Know that a	Know that a		
	theory is an	theory is an		
	explanation of	explanation of		
	observations that	observations that		
	has been tested	has been tested		
	to some extent	to some extent		
	and that a	and that a		
	hypothesis is an	hypothesis is an		
	explanation that	explanation that		
	has not yet been	has not yet been		
	tested, but that	tested, but that		
	can be tested	can be tested		
	through a	through a		
	scientific enquiry	scientific enquiry		
	Scientific enquity	Scientific enquiry		
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