

## **Science Skills Progression**

National Curriculum statements in red are from other linked topics in same year.

EYFS	Key S	Stage 1	Key Stage 2		2		Key Stage 3
			Plar	nts			
Rec	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	
Understanding	Identify and	Observe and	Identify and	Recognise that	Describe the	Describe how	Reproduction in
the World:	name a variety	describe how	describe the	living things can be	life process of	living things	plants, including
	of common	seeds and bulbs	functions of	grouped in a	reproduction in	are classified	flower structure,
Children know	wild and	grow into mature	different parts of	variety of ways. (Y4	some plants	into broad	wind and insect
about	garden plants,	plants.	flowering plants:	- Living things and	and animals.	groups	pollination,
similarities and	including		roots, stem/trunk,	their habitats)	(Y5 - Living	according to	fertilisation,
differences in	deciduous and	Find out and	leaves and flowers.		things and	common	seed and fruit
relation to	evergreen	describe how		Explore and use	their habitats)	observable	formation and
places, objects,	trees.	plants need	Explore the	classification keys		characteristics	dispersal,
materials and		water, light and a	requirements of	to help group,		and based on	including
living things.	Identify and	suitable	plants for life and	identify and name		similarities and	quantitative
They talk about	describe the	temperature to	growth (air, light,	a variety of living		differences,	investigation of
the <b>features of</b>	basic structure	grow and stay	water, nutrients	things in their local		including	some dispersal
their own	of a variety of	healthy.	from soil, and room	and wider		micro-	mechanisms.
immediate	common		to grow) and how	environment. (Y4 -		organisms,	
environment	flowering	Identify and	they vary from	Living		plants and	
and how	plants,	name a variety of	plant to	things and their		animals. (Y6 -	
environments	including trees.	plants and	Plant.	habitats)		Living things	
might vary		animals in their					



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from one		habitats,	Investigate the way	Recognise that		and their	
another. They		including	in which water is	environments can		habitats)	
make		microhabitats.	transported within	change and that			
observations of		(Y2 - Living things	plants.	this can sometimes		Give reasons	
animals and		and their		pose dangers to		for classifying	
<b>plants</b> and		habitats)	Explore the part	living things. (Y4 -		plants and	
explain why			that flowers play in	Living things and		animals based	
some things			the life cycle of	their habitats)		on specific	
occur, and talk			flowering plants,			characteristics.	
about changes.			including			(Y6 - Living	
			pollination, seed			things and	
			formation and seed			their habitats)	
			dispersal.			•	
			Living things and	their habitats			
Rec	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	KS3
	Identify and	Explore and	Explore the part	Recognise that	Describe the	Describe how	Reproduction in
Understanding	name a variety	compare the	that flowers play in	living things can be	differences in	living things	humans (as an
the World:	of common	differences	the life cycle of	grouped in a	the life cycles	are classified	example of a
	wild and	between things	flowering plants,	variety of ways.	of a mammal,	into broad	mammal),
Children know	garden plants,	that are living,	including		an amphibian,	groups	including the
about	including	dead, and things	pollination, seed	Explore and use	an insect and a	according to	structure and
similarities and	deciduous and	that have never	formation and seed	classification keys	bird.	common	function of the
<b>differences</b> in	evergreen	been alive.	dispersal. (Y3 -	to help group,		observable	male and female
relation to	3.5.8.55.1		Plants)	identify and name		characteristics	
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places, objects,	trees. (Y1 -	Identify that	a variety of living	Describe the	and based on	reproductive
materials and	Plants)	most living things	things in their local	life process of	similarities and	systems,
living things.		live in habitats to	and wider	reproduction in	differences,	menstrual cycle
They talk about	Identify and	which they are	environment.	some plants	including	(without details
the <b>features of</b>	describe the	suited and		and animals.	microorganism,	of hormones),
their own	basic structure	describe how	Recognise that		plants and	gametes,
immediate	of a variety of	different habitats	environments can		animals.	fertilisation,
environment	common	provide for the	change and that			gestation and
and how	flowering	basic needs of	this can sometimes		Give reasons	birth, to include
environments	plants,	different kinds of	pose dangers to		for classifying	the effect of
might vary	including trees.	animals and	living things.		plants and	maternal
from one	(Y1 - Plants)	plants, and how			animals based	lifestyle on the
another. They		they depend on	Construct and		on specific	foetus through
make	Identify and	each other.	interpret a variety		characteristics.	the placenta.
observations of	name a variety		of food chains,			
animals and	of common	Identify and	identifying			Reproduction in
<b>plants</b> and	animals	name a variety of	producers,			plants, including
explain why	including fish,	plants and	predators and prey.			flower structure,
some things	amphibians,	animals in their	(Y4 - Animals,			wind and insect
occur, and talk	reptiles, birds	habitats,	including humans)			pollination,
about changes.	and mammals.	including				fertilisation,
	(Y1 - Animals	microhabitats.				seed and fruit
	including					formation and
	humans)	Describe how				dispersal,
		animals obtain				including
	Identify and	their food from				quantitative
	name a variety	plants and other				investigation of
	of common	animals, using				some dispersal
	animals that	the idea of a				mechanisms.
	are carnivores,	simple food				
	herbivores and	chain, and				Differences
	omnivores. (Y1	identify and				between
	- Animals	name different				species.



	including humans)	sources of food.					
		Notice that					
	Describe and	animals, including					
	compare the	humans, have					
	structure of a	offspring which					
	variety of	grow into adults.					
	common	(Y2 - Animals					
	animals (fish,	including					
	amphibians,	humans)					
	reptiles, birds						
	and mammals,						
	including pets).						
	(Y1 – Animals,						
	including						
	humans)						
	Observe						
	changes across						
	the four						
	seasons. (Y1 -						
	Seasonal						
	change)						
			Animals inclu	ding humans			
Rec	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	KS3
Nec	leal I	i cai Z	i cai 3	i cai 4	ieai 5	Teal 0	133
	Identify and	Notice that	Identify that	Describe the	Describe the	Identify and	Reproduction in
Understanding	name a variety	animals, including	animals, including	simple functions of	changes as	name the main	humans (as an
the World:	of common	humans, have	humans, need the	the basic parts of	humans	parts of the	example of a
	animals	offspring which	right types and	the digestive	develop to old	human	mammal),
	including fish,	grow into adults.	amount of	system in humans.	age.	circulatory	including the



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Children know	amphibians,		nutrition, and that			system, and	structure and
about	reptiles, birds	Find out about	they cannot make	Identify the	Describe the	describe the	function of the
similarities and	and mammals.	and describe the	their own food;	different types of	differences in	functions of	male and female
differences in		basic needs of	they get nutrition	teeth in humans	the life cycles	the heart,	reproductive
relation to	Identify and	animals, including	from what they eat.	and their simple	of a mammal,	blood vessels	systems,
places, objects,	name a variety	humans, for		functions.	an amphibian,	and blood.	menstrual cycle
materials and	of common	survival (water,	Identify that		an insect and a		(without details
living things.	animals that	food and air).	humans and some	Construct and	bird. (Y5 -	Recognise the	of hormones),
They talk about	are carnivores,		other animals have	interpret a variety	Living things	impact of diet,	gametes,
the <b>features of</b>	herbivores and	Describe the	skeletons and	of food chains,	and their	exercise, drugs	fertilisation,
their own	omnivores.	importance for	muscles for	identifying	habitats)	and lifestyle on	gestation and
immediate		humans of	support, protection	producers,		the way their	birth, to include
environment	Describe and	exercise, eating	and movement.	predators and prey.	Describe the	bodies	the effect of
and how	compare the	the right amounts			life process of	function.	maternal
environments	structure of a	of different types			reproduction in		lifestyle on the
might vary	variety of	of food, and			some plants	Describe the	foetus through
from one	common	hygiene.			and animals.	ways in which	the placenta.
another. They	animals (fish,				(Y5 - Living	nutrients and	
make	amphibians,				things and	water are	The
observations of	reptiles, birds				their habitats)	transported	consequences of
animals and	and mammals,					within animals,	imbalances in
<b>plants</b> and	including pets).					including	the diet,
explain why						humans.	including
some things	Identify, name,						obesity,
occur, and talk	draw and label					Describe how	starvation and
about changes.	the basic parts					living things	deficiency
	of the human					are classified	diseases.
	body and say					into broad	
	which part of					groups	The effects of
	the body is					according to	recreational
	associated with					common	drugs (including
	each sense.					observable	substance
						characteristics	misuse) on



						and based on similarities and differences,	behaviour, health and life processes.
						including micro- organisms, plants and animals. (Y6 - Living things and their	The structure and functions of the gas exchange system in humans, including
						habitats)  Give reasons for classifying plants and animals based on specific	adaptations to function.  The mechanism of breathing to move air in and out of the lungs.
						characteristics. (Y6 - Living things and their habitats)	The impact of exercise, asthma and smoking on the human gas exchange
			Evolution and	d inheritance			system.
Rec	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	KS3
		Identify that most living things live in habitats to which they are suited and	Describe in simple terms how fossils are formed when things that have lived are trapped	Recognise that environments can change and that this can sometimes pose dangers to		Recognise that living things have changed over time and that fossils	Heredity as the process by which genetic information is transmitted



describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other. (Y2 - Living things and their habitats)  Notice that animals, including humans, have offspring which grow into adults. (Year 2 – Animals including Humans)  We have a first of the basic needs of different kinds of animals and plants, and how they depend on each other. (Y2 - Living things and their habitats)  Notice that animals, including humans, have offspring which grow into adults. (Year 2 – Animals including Humans)  Notice that animals, including humans, have offspring which grow into adults. (Year 2 – Animals including Humans)  Notice that animals, including humans, have offspring wary and and are not identical to their parents.  Notice that animals, including humans, have offspring wary and and are not identical to their parents.  Notice that animals, including humans, have offspring wary and and are not identical to their parents.  Notice that animals, including humans, have offspring wary and and are not identical to their parents.  Notice that animals, including humans, have offspring wary and and are not identical to their parents.  Notice that animals, including humans, have offspring wary and and are not identical to their parents.  He variation to the part have inhabitated inhabited the A simple model of chromosomes, we genes and DNA in heredity, will watch their parents and parents are adapted to suit their parents.  The variation between animals and plants are adapted to suit their parents.  The variation between individuals of the same species and batter inhabitated inhabited the A simple may then was inhabited inhabited the A simple may then was inhabited inhabited the A simple may then was inhabited inha	T T			T		
provide for the basic needs of different kinds of animals and plants, and how they depend on each other, (Y2 - Living things and their habitats)  Notice that animals, including humans, have offspring which grow into adults. (Year 2 – Animals including Humans)  New Team of the company of the					•	
basic needs of different kinds of animals and plants, and how they depend on each other. (Y2 - Living things and their habitats)  Notice that animals, including humans, have offspring which grow into adults. (Year 2 – Animals including Humans)  Humans)  Humans)  Humans)  A simple model of chromosomes, genes and DNA Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. (Year 2 – Animals including Humans)  Humans)  Humans)  Humans)  Humans)  A simple model of chromosomes, genes and DNA Watson, Crick, Wilkins and Franklin in the development of the DNA model. Wilkins and Franklin in the development of the DNA model. The variation between species and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.  Changes in the environment to the part played by which can daptation may lead to evolution.		Rocks)				_
different kinds of animals and plants, and how they depend on each other. (Y2 - Living things and their habitats)  Notice that animals, including humans, have offspring which grow into adults. (Year 2 - Animals including Humans)  I was a plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.  A simple model of years ago. chromosomes, genes and DNA living things produce offspring of the same kind, but normally offspring vary and and are not identical to their parents. The variation between species and between individuals of the DNA model. The variation between species and between may and that adaptation may lead to evolution.  Changes in the	•		their habitats)		~	the next.
animals and plants, and how they depend on each other. (Y2-Living things and their habitats)  Notice that animals, including humans, have offspring which grow into adults. (Year 2 – Animals including Humans)  Humans)  Animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.  Earth millions of years ago. of chromosomes, genes and DNA in heredity, including the part played by Watson, Crick, Wilkins and normally offspring vary and are not identical to their parents.  The variation between species and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.  Changes in the						
plants, and how they depend on each other. (Y2 - Living things and their habitats)  Notice that animals, including humans, have offspring which grow into adults. (Year 2 – Animals including Humans)  Humans)  Notice that animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.  Plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.  Changes in the environment in environmen	different kinds of				inhabited the	A simple model
they depend on each other. (Y2 - Living things and their habitats)  Notice that animals, including humans, have offspring which grow into adults. (Year 2 – Animals including Humans)  In their parents.  In the variation between species and DNA  In heredity, including the part played by Watson, Crick, Wilkins and the DNA model.  In the parents.  In the development of the DNA model.  In the apart played by Watson, Crick, Wilkins and the DNA model.  In the parents of the DNA model.  In the apart played by Watson, Crick, Wilkins and the DNA model.  In the apart played by Watson, Crick, Wilkins and the DNA model.  In the apart played by Watson, Crick, Wilkins and the DNA model.  In the apart played by Watson, Crick, Wilkins and the DNA model.  In the apart played by Watson, Crick, Wilkins and the DNA model.  In the apart played by Watson, Crick, Wilkins and the DNA model.  In the apart played by Watson, Crick, Wilkins and the DNA model.  In the apart played by Watson, Crick, Wilkins and the DNA model.  In the apart played by Watson, Crick, Wilkins and the DNA model.  In the apart played by Watson, Crick, Wilkins and the DNA model.  In the apart played by Watson, Crick, Wilkins and the DNA model.  In the development of the DNA model.  In the development of the DNA model.  In the development of the DNA model.  In the apart played by Watson, Crick, Wilkins and the DNA model.  In the apart played by Watson, Crick, Wilkins and the DNA model.  In the part played by Watson, Crick, Wilkins and the DNA model.  In the development of the DNA model.  In the development of the DNA model.  In the development of the DNA m	animals and				Earth millions	of
each other. (Y2 - Living things and their habitats)  Notice that animals, including humans, have offspring which grow into adults. (Year 2 - Animals including Humans)  Humans)  Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. In evariation between species and between animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.  Recognise that living things produce offspring of the same kind, but normally franklin in the development of the DNA model.  The variation between species and between individuals of the same species and between organisms compete more successfully, which can drive natural selection. Changes in the environment	plants, and how				of years ago.	chromosomes,
Living things and their habitats)  Notice that animals, including humans, have offspring which grow into adults. (Year 2 – Animals including Humans)  Humans)  Living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. (Year 2 – Animals including Humans)  Living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. (Year 2 – Animals including Humans)  Humans)  Living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. (He DNA model.)  The variation between species and between species adapted to suit their environment in different ways and that adaptation may lead to evolution. (Changes in the environment)	they depend on					genes and DNA
their habitats)  Notice that animals, including humans, have offspring which grow into adults. (Year 2 – Animals including Humans)  Humans)  their habitats)  Notice that animals, including humans, have offspring which grow into adults. (Year 2 – Animals including Humans)  Humans)  their habitats)  Notice that animals, including humans, have offspring wary and are not identical to their parents. The variation between species and between animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.  Changes in the environment	each other. (Y2 -				Recognise that	in heredity,
Notice that animals, including humans, have offspring which grow into adults. (Year 2 – Animals including Humans)  Humans)  Notice that animals, including humans, have offspring which grow into adults. (Year 2 – Animals including Humans)  Humans)  Notice that animals, including Humans, have offspring which grow into adults. (Year 2 – Animals including Humans)  Humans)  Notice that same kind, but normally offspring of the same kind, but normally will in the development of the DNA model.  The variation between sand between individuals of the same species and between organisms compete more successfully, which can drive natural selection.  Changes in the environment	Living things and				living things	including the
Notice that animals, including humans, have offspring which grow into adults. (Year 2 – Animals including Humans) Humans)  Notice that animals, including humans, have offspring which grow into adults. (Year 2 – Animals including Humans)  Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.  Wilkins and Franklin in the development of the DNA model.  The variation between species and between individuals of the same species means some organisms compete more successfully, which can drive natural selection.  Changes in the environment	their habitats)				produce	part played by
animals, including humans, have offspring which grow into adults. (Year 2 – Animals including Humans)  Humans)  Humans)  Humans)  Humans  Huma					offspring of the	Watson, Crick,
humans, have offspring which grow into adults. (Year 2 – Animals including Humans)  Humans)  humans, have offspring which grow into adults. (Year 2 – Animals including Humans)  Humans)  Humans)  humans, have offspring wary and are not identical to their parents.  Indentify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.  Humans offspring wary and are not identical to the DNA model.  The variation between service and between organisms compete more successfully, which can drive natural selection.  Changes in the environment	Notice that				same kind, but	Wilkins and
offspring which grow into adults. (Year 2 – Animals including Humans)  Humans)  Humans)  Humans  Human	animals, including				normally	Franklin in the
grow into adults. (Year 2 – Animals including Humans)  Humans  Huma	humans, have				offspring vary	development of
(Year 2 – Animals including Humans)  their parents.  Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.  (Year 2 – Animals including Humans)  their parents.  The variation between species and between individuals of the same species means some organisms compete more successfully, which can drive natural selection.  Changes in the environment	offspring which				and are not	the DNA model.
including Humans)  Hu	grow into adults.				identical to	
Humans)  Humans)  Identify how and between individuals of plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.  Changes in the environment	(Year 2 – Animals				their parents.	The variation
animals and plants are adapted to suit their organisms environment in different ways and that adaptation may lead to evolution.  Changes in the environment in dirividuals of the same species means some organisms compete more successfully, which can drive natural selection.	including				•	between species
plants are adapted to suit their organisms compete more successfully, and that adaptation may lead to evolution.  Changes in the environment to the same species means some organisms compete more successfully, which can drive natural may lead to evolution.	Humans)				Identify how	and between
adapted to suit their environment in different ways and that adaptation may lead to evolution.  Changes in the environment					animals and	individuals of
their environment in different ways and that adaptation may lead to evolution.  Changes in the environment					plants are	the same species
environment in different ways and that adaptation may lead to evolution.  Changes in the environment					adapted to suit	means some
different ways and that which can adaptation may lead to evolution.  Changes in the environment					their	organisms
and that adaptation drive natural may lead to evolution.  Changes in the environment					environment in	compete more
adaptation drive natural may lead to evolution.  Changes in the environment					different ways	successfully,
may lead to evolution.  Changes in the environment					and that	which can
may lead to evolution.  Changes in the environment					adaptation	drive natural
evolution. Changes in the environment					•	selection.
environment						
environment						Changes in the
						_



			Be the best you				
							individuals within a species, and some entire species, less well adapted to compete successfully and reproduce, which in turn may lead to extinction.
			Seasonal c	hanges			CXCIIICCIOII.
Rec	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	KS3
Understanding	Observe		Recognise that		Use the idea		The seasons and
the World:	changes across		light from the sun		of the Earth's		the Earth's tilt,
	the four		can be dangerous		rotation to		day length at
Children know	seasons.		and that there are		explain day		different times
about			ways to protect		and night and		of year, in
similarities and	Observe and		their eyes. (Y3 -		the apparent		different
differences in	describe		Light)		movement of		hemispheres.
relation to	weather				the Sun across		
places, objects,	associated with				the sky. (Y5 -		
materials and	the seasons				Earth and		
living things.	and how day				space)		
They talk about	length varies.						
the <b>features of</b>							
their own							
immediate							
environment							
and how							
environments							



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might vary							
from one							
<b>another</b> . They							
make							
observations of							
animals and							
plants and							
explain why							
some things							
occur, and talk							
about changes.							
			Mate	wiele			
			iviate	riais			
Rec	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	KS3
Understanding	Distinguish	Identify and	Compare and group	Compare and	Compare and		Chemical
the World:	between an	compare the	together different	group materials	group together		reactions as the
	object and the	suitability of a	kinds of rocks on	together, according	everyday		rearrangement
Children know	material from	variety of	the basis of their	to whether they	materials on		of atoms.
about	which it is	everyday	appearance and	are solids, liquids or	the basis of		
similarities and	made.	materials,	simple physical	gases.	their		Representing
differences in		including wood,	properties. (Y3 -		properties,		chemical
relation to	Identify and	metal, plastic,	Rocks)	Observe that some	including their		reactions using
places, objects,	name a variety	glass, brick, rock,		materials change	hardness,		formulae and
materials and	of everyday	paper and	Describe in simple	state when they	solubility,		using equations.
living things.	materials,	cardboard	terms how fossils	are heated or	transparency,		
They talk about	including	for particular	are formed when	cooled, and	conductivity		Combustion,
the <b>features of</b>	wood, plastic,	uses.	things that have	measure or	(electrical and		thermal
their own	glass, metal,		lived are trapped	research the	thermal), and		decomposition,
immediate	water, and	Find out how the	within rock. (Y3 -	temperature at	response to		oxidation and
environment	rock.	shapes of solid	Rocks)	which this happens	magnets.		displacement
and how		objects made					reactions.



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environments	Describe the	from some	Notice that some	in degrees Celsius	Know that	
might vary	simple physical	materials can be	forces need contact	(°C).	some materials	Defining acids
from one	properties of a	changed by	between two		will dissolve in	and alkalis in
another.	variety of	squashing,	objects, but	Identify the part	liquid to form a	terms of
	everyday	bending, twisting	magnetic forces can	played by	solution and	neutralisation
	materials.	and stretching.	act at a distance.	evaporation and	describe how	reactions.
			(Y3 - Forces and	condensation in the	to recover a	
	Compare and		magnets)	water cycle and	substance from	The pH scale for
	group together			associate the rate	a solution.	measuring
	a variety of			of evaporation with		acidity/alkalinity;
	everyday			temperature.	Use knowledge	and indicators.
	materials on				of solids,	
	the basis of			Recognise some	liquids and	
	their simple			common	gases to decide	
	physical			conductors and	how mixtures	
	properties.			insulators, and	might be	
				associate metals	separated,	
				with being good	including	
				conductors (Y4 –	through	
				Electricity)	filtering,	
					sieving and	
					evaporating.	
					Give reasons,	
					based on	
					evidence from	
					comparative	
					and fair tests,	
					for the	
					particular uses	
					of everyday	
					materials,	
					including	
					Including	



Be the best you can be! —

,								
	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								



	Year 6	KS3
between an object and the material from which it is materials, materials)  Identify and name a variety of everyday of everyday materials, including wood, of everyday materials, including wood, which it is everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. (Y2 - Uses of including everyday within rock.	ecognise that living things ave changed ver time and that fossils provide information about living things that nhabited the arth millions of years ago. (6 - Evolution and inheritance)	The composition of the Earth.  The structure of the Earth.  The rock cycle and the formation of igneous, sedimentary and metamorphic rocks.



			Be the best you ca	30,399,000			
	Compare and group together a variety of everyday materials on the basis of their simple physical properties. (Y1 - Everyday materials)						
	materials		Light	t			
Rec	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	KS3
Nec	Teal 1	Teal 2	rear 3	real 4	rears	Teal 0	K33
	Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. (Y1 - Animals, including humans)		Recognise that they need light in order to see things and that dark is the absence of light.  Notice that light is reflected from surfaces.  Recognise that light from the sun can be dangerous			Recognise that light appears to travel in straight lines.  Use the idea that light travels in straight lines to explain that objects are seen because they give out	The similarities and differences between light waves and waves in matter.  Light waves travelling through a vacuum; speed of light.  The transmission
	Observe changes across the four seasons.		and that there are ways to protect their eyes.			or reflect light into the eye.  Explain that we see things	of light through materials: absorption, diffuse scattering and



 1		 The state of the s		
Observe and	Recognise that		because light	specular
describe	shadows are		travels from	reflection at a
weather	formed when the		light sources to	surface.
associated with	light from a light		our eyes or	
the seasons	source is blocked		from light	Use of ray
and how day	by an opaque		sources to	model to explain
length varies.	object.		objects and	imaging in
(Y1 – Seasonal			then to our	mirrors, the
Changes)	Find patterns in		eyes.	pinhole camera,
	the way that the			the refraction of
	size of shadows		Use the idea	light and action
	change.		that light	of convex lens in
			travels in	focusing
			straight lines to	(qualitative);
			explain why	the human eye.
			shadows have	
			the same	Light
			shape as the	transferring
			objects that	energy from
			cast them.	source to
				absorber leading
				to chemical and
				electrical effects;
				photo-sensitive
				material in the
				retina and in
				Cameras.
				Colours and the
				different
				frequencies of
				light, white light
				and prisms



			Force	es			(qualitative only); differential colour effects in absorption and diffuse Reflection.
Rec	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	KS3
		Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. (Y2 Uses of everyday materials)	Compare how things move on different surfaces.  Notice that some forces need contact between two objects, but magnetic forces can act at a distance.  Observe how magnets attract or repel each other and attract some materials and not others.  Compare and group together a variety of everyday		Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.  Identify the effects of air resistance, water resistance and friction, that act between moving surfaces.		Magnetic fields by plotting with compass, representation by field lines.  Earth's magnetism, compass and navigation.  Forces as pushes or pulls, arising from the interaction between two objects.  Using force arrows in diagrams, adding



 		410000000000000000000000000000000000000		
	materials on the		<ul> <li>Recognise</li> </ul>	forces in one
	basis of whether		that some	dimension,
	they are attracted		mechanisms,	balanced and
	to a magnet, and		including	unbalanced
	identify some		levers, pulleys	forces.
	magnetic materials.		and gears,	
			allow a smaller	Moment as the
	Describe magnets		force to have a	turning effect of
	as having two		greater effect.	a force.
	poles.			
				Forces:
	Predict whether			associated with
	two magnets will			deforming
	attract or repel			objects;
	each other,			stretching and
	depending on			squashing –
	which poles are			springs; with
	facing.			rubbing and
				friction between
				surfaces, with
				pushing
				things out of the
				way; resistance
				to motion of air
				and water.
				Forces
				measured in
				Newtons,
				measurements
				of stretch or
				compression as
				force is changed.



Sound							
Rec	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	KS3
	Identify, name,			Identify how			Waves on wate
	draw and label			sounds are made,			as undulations
	the basic parts			associating some of			which travel
	of the human			them with			through water
	body and say			something			with transvers
	which part of			vibrating.			motion; these
	the body is						waves can be
	associated with			Recognise that			reflected and
	each sense. (Y1			vibrations from			add or cancel
	- Animals,			sounds travel			superposition
	including			through a medium			
	humans)			to the ear.			Frequencies of
							sound waves,
				Find patterns			measured in
				between the pitch			Hertz (Hz);
				of a sound and			echoes,
				features of the			reflection and
				object that			absorption of
				produced it.			sound.
				Find patterns			Sound needs
				between the			medium to
				volume of a sound			travel, the spee
				and the strength of			of sound in air



the vibrations that	in water, in
produced it.	solids.
Recognise that	Sound produced
sounds get fainter	by vibrations of
as the distance	objects, in loud
from the sound	speakers,
source increases.	detected by
	their effects on
	microphone
	diaphragm and
	the ear drum;
	sound
	waves are
	longitudinal.
	Auditory range
	of humans and
	animals.
	Drossura wayas
	Pressure waves transferring
	energy; use for
	cleaning and
	physiotherapy
	by ultra-sound.
	by ditt a-soulid.
	Waves
	transferring
	information for
	conversion to
	electrical signals
	by microphone.



				• •-					
	Electricity Electricity								
Rec	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	KS3		
	Identify and	Identify and		Identify common	Compare and	Associate the	Electric current,		
	name a variety	compare the		appliances that run	group together	brightness of a	measured in		
	of everyday	suitability of a		on electricity.	everyday	lamp or the	amperes, in		
	materials,	variety of			materials on	volume of a	circuits, series		
	including	everyday		Construct a simple	the basis of	buzzer with the	and parallel		
	wood, plastic,	materials,		series electrical	their	number and	circuits, currents		
	glass, metal,	including wood,		circuit, identifying	properties,	voltage of cells	add where		
	water, and	metal, plastic,		and naming its	including their	used in the	branches meet		
	rock.	glass, brick, rock,		basic parts,	hardness,	circuit.	and current as		
		paper and		including cells,	solubility,		flow of charge.		
	Describe the	cardboard		wires, bulbs,	transparency,	Compare and			
	simple physical	for particular		switches and	conductivity	give reasons	Potential		
	properties of a	uses. (Y2 -		buzzers.	(electrical and	for variations	difference,		
	variety of	Materials)			thermal), and	in how	measured in		
	everyday			Identify whether	response to	components	volts, battery		
	materials.			or not a lamp will	magnets (Y5 –	function,	and bulb ratings;		
				light in a simple	Materials)	including the	resistance,		
	Compare and			series circuit, based		brightness of	measured in		
	group together			on whether or not		bulbs, the	ohms, as the		
	a variety of			the lamp is part of		loudness of	ratio of potential		
	everyday			a complete loop		buzzers and	difference (p.d.)		
	materials on			with a battery.		the	to current.		
	the basis of					on/off position			
	their simple			Recognise that a		of switches.	Differences in		
	physical			switch opens and			resistance		



	properties. (Y1			closes a circuit and		Use recognised	between
	<ul><li>– Materials)</li></ul>			associate this with		symbols when	conducting and
				whether or not a		representing a	insulating
				lamp lights in a		simple circuit	components
				simple series		in a diagram.	(quantitative).
				circuit.			
							Static electricity.
				Recognise some			
				common			
				conductors and			
				insulators, and			
				associate metals			
				with being good			
				conductors.			
			Earth an	d Space			
Rec	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	1/62
		. ea. 2	i eai 3	i cai 4	i cai 3	real o	KS3
			Teal 3	1601 4		real o	
	Observe		Teal 3	rear 4	Describe the	rear o	Gravity force,
	Observe changes across		- Teal 3	Teal 4	Describe the movement of	rear o	Gravity force, weight = mass x
	Observe changes across the four		- Teal 3	rear 4	Describe the movement of the Earth, and	rear o	Gravity force, weight = mass x gravitational
	Observe changes across the four seasons. (Y1 -		Teal 3	rear 4	Describe the movement of the Earth, and other planets,	rear o	Gravity force, weight = mass x gravitational field strength
	Observe changes across the four seasons. (Y1 - Seasonal		Teal 3	rear 4	Describe the movement of the Earth, and other planets, relative to the	rear o	Gravity force, weight = mass x gravitational field strength (g), on Earth
	Observe changes across the four seasons. (Y1 -		Teal 3	rear 4	Describe the movement of the Earth, and other planets, relative to the Sun in the solar	rear o	Gravity force, weight = mass x gravitational field strength (g), on Earth g=10 N/kg,
	Observe changes across the four seasons. (Y1 - Seasonal		Teal 3	rear 4	Describe the movement of the Earth, and other planets, relative to the	rear o	Gravity force, weight = mass x gravitational field strength (g), on Earth g=10 N/kg, different on
	Observe changes across the four seasons. (Y1 - Seasonal changes)			rear 4	Describe the movement of the Earth, and other planets, relative to the Sun in the solar	rear o	Gravity force, weight = mass x gravitational field strength (g), on Earth g=10 N/kg, different on other planets
	Observe changes across the four seasons. (Y1 - Seasonal changes)		Teal 3	rear 4	Describe the movement of the Earth, and other planets, relative to the Sun in the solar system.	rear o	Gravity force, weight = mass x gravitational field strength (g), on Earth g=10 N/kg, different on other planets
	Observe changes across the four seasons. (Y1 - Seasonal changes) Observe and describe		Teal 3	rear 4	Describe the movement of the Earth, and other planets, relative to the Sun in the solar system.	rear o	Gravity force, weight = mass x gravitational field strength (g), on Earth g=10 N/kg, different on other planets and stars; gravity
	Observe changes across the four seasons. (Y1 - Seasonal changes)  Observe and describe weather		Teal 3	rear 4	Describe the movement of the Earth, and other planets, relative to the Sun in the solar system.  Describe the movement of	rear o	Gravity force, weight = mass x gravitational field strength (g), on Earth g=10 N/kg, different on other planets and stars; gravity
	Observe changes across the four seasons. (Y1 - Seasonal changes)  Observe and describe weather associated with		Teal 3	rear 4	Describe the movement of the Earth, and other planets, relative to the Sun in the solar system.  Describe the movement of the Moon	rear o	Gravity force, weight = mass x gravitational field strength (g), on Earth g=10 N/kg, different on other planets and stars; gravity forces between



Be the best you can be! —

(Y1 - Seasonal	Describe the	(qualitative
changes)	Sun, Earth and	only).
	Moon as	
	approximately	Our Sun as a
	spherical	star, other stars
	bodies.	in our galaxy,
		other galaxies.
	Use the idea	
	of the Earth's	The seasons and
	rotation to	the Earth's tilt,
	explain day	day length at
	and night and	different times
	the apparent	of year, in
	movement of	different
	the sun across	hemispheres.
	the sky.	
		The light year as
		a unit of
		astronomical
		distance.