Year 1

Living things and their habitats (Yr 2, 4, 5, 6)

explore and compare the differences

between things that are living, dead, and things that have never been alive

Key Stage 1

Year 2

Animals, including humans (Yr 1-6)

animals including fish, amphibians, reptiles, birds and mammals

identify and name a variety of common

## JCS Pupils should be taught to: Working scientifically (Yr 1&2, 3&4, 5&6)

asking simple questions and recognising

that they can be answered in different ways

that they can be answered in different ways	between things that are living, dead, and	birds and mammals				
observing closely, using simple equipment	things that have never been alive	identify and name a variety of common	notice that light is reflected from surfaces	notice that some forces need contact between two objects, but	identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock	
performing simple tests	identify that most living things live in habitats	animals that are carnivores, herbivores and omnivores	recognise that light from the sun can be dangerous and that there are ways to protect	magnetic forces can act at a		
identifying and classifying	to which they are suited and describe how different habitats provide for the basic needs	describe and compare the structure of a	their eyes	observe how magnets attract or	describe the simple physical properties of	
using their observations and ideas to suggest answers to questions	of different kinds of animals and plants, and how they depend on each other	variety of common animals (fish, amphibians, reptiles, birds and mammals,	recognise that shadows are formed when the light from a light source is blocked by a solid object	repel each other and attract some materials and not others	a variety of everyday materials	
gathering and recording data to help in answering questions	identify and name a variety of plants and animals in their habitats, including micro-	including pets) identify, name, draw and label the basic	find patterns in the way that the size of shadows change	compare and group together a variety of everyday materials on the basis of whether they are attracted	everyday materials on the basis of their simple physical properties	
asking relevant questions and using different types of scientific enquiries to answer them	habitats describe how animals obtain their food from	parts of the human body and say which part of the body is associated with each sense	recognise that light appears to travel in straight lines	to a magnet, and identify some magnetic materials	Uses of everyday Materials (Yr 2) identify and compare the suitability of a	
setting up simple practical enquiries, comparative and fair tests	plants and other animals, using the idea of a simple food chain, and identify and name different sources of food	notice that animals, including humans, have offspring which grow into adults	use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye	describe magnets as having two poles	variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses	
making systematic and careful observations and, where appropriate, taking accurate	recognise that living things can be grouped in a variety of ways	find out about and describe the basic needs of animals, including humans, for survival (water, food and air)	explain that we see things because light travels	predict whether two magnets will attract or repel each other,	find out how the shapes of solid objects made from some materials can be	
measurements using standard units, using a range of equipment, including thermometers and data loggers	explore and use classification keys to help group, identify and name a variety of living	describe the importance for humans of exercise, eating the right amounts of	sources to objects and then to our eyes use the idea that light travels in straight lines to	depending on which poles are facing <u>Forces (Yr 5)</u> explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object	changed by squashing, bending, twisting and stretching	
gathering, recording, classifying and	things in their local and wider environment	different types of food, and hygiene			States of matter (Yr 4)	
presenting data in a variety of ways to help in answering questions	recognise that environments can change and that this can sometimes pose dangers to living things	identify that animals, including humans, need the right types and amount of nutrition,	the objects that cast them Sound (Yr 4)		compare and group materials together, according to whether they are solids,	
recording findings using simple scientific language, drawings, labelled diagrams,	describe the differences in the life cycles of a mammal, an amphibian, an insect and a	and that they cannot make their own food; they get nutrition from what they eat	identify how sounds are made, associating some	identify the effects of air resistance,	liquids or gases	
keys, bar charts, and tables	bird	identify that humans and some other	of them with something vibrating recognise that vibrations from sounds travel	water resistance and friction, that act between moving surfaces	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)	
reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and	describe the life process of reproduction in some plants and animals	animals have skeletons and muscles for support, protection and movement	through a medium to the ear	recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a		
conclusions	describe how living things are classified into broad groups according to common observable characteristics and based on	describe the simple functions of the basic parts of the digestive system in humans	find patterns between the pitch of a sound and features of the object that produced it	allow a smaller force to have a	identify the part played by evaporation and	
using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions	observable characteristics and based on similarities and differences, including micro- organisms, plants and animals	identify the different types of teeth in humans and their simple functions	find patterns between the volume of a sound and the strength of the vibrations that produced it	Seasonal changes (Yr 1) observe changes across the four	condensation in the water cycle and associate the rate of evaporation with temperature	
identifying differences, similarities or changes related to simple scientific ideas	give reasons for classifying plants and animals based on specific characteristics	construct and interpret a variety of food chains, identifying producers, predators and	recognise that sounds get fainter as the distance from the sound source increases	seasons	Properties and changes of materials (Yr 5)	
and processes	Plants (Yr 1, 2, 3)	prey	Electricity (Yr 4, 6)	observe and describe weather associated with the seasons and	compare and group together everyday materials on the basis of their properties,	
using straightforward scientific evidence to	identify and name a variety of common wild	describe the changes as humans develop to old age	identify common appliances that run on electricity	how day length varies	materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets know that some materials will dissolve in liquid to form a solution, and describe how	
answer questions or to support their findings	and gárden plants, including deciduous and evergreen trees	identify and name the main parts of the	construct a simple series electrical circuit,	Rocks (Yr 3)		
planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary	identify and describe the basic structure of a variety of common flowering plants, including trees	human circulatory system, and describe the functions of the heart, blood vessels and blood	identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers	compare and group together different kinds of rocks on the basis of their appearance and simple physical properties		
taking measurements, using a range of scientific equipment, with increasing	observe and describe how seeds and bulbs grow into mature plants	recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function	identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery	describe in simple terms how fossils are formed when things that have	to recover a substance from a solution	
accuracy and precision, taking repeat readings when appropriate recording data and results of increasing	find out and describe how plants need water, light and a suitable temperature to grow and stay healthy	describe the ways in which nutrients and water are transported within animals, including humans	recognise that a switch opens and closes a circuit and associate this with whether or not a lamp	lived are trapped withĭn rock recognise that soils are made from rocks and organic matter	use knowledge of solids, liquids and gase to decide how mixtures might be separated, including through filtering,	
complexity using scientific diagrams and	identify and describe the functions of	Evolution and inheritance (Yr 6)	lights in a simple series circuit	Earth and space (Yr 5)	sieving and evaporating	
labels, classification keys, tables, scatter graphs, bar and line graphs	different parts of flowering plants: roots, stem/trunk, leaves and flowers	recognise that living things have changed over time and that fossils provide	recognise some common conductors and insulators, and associate metals with being good conductors	describe the movement of the Earth, and other planets, relative to the	give reasons, based on evidence from comparative and fair tests, for the particular uses of evenday materials	
using test results to make predictions to set up further comparative and fair tests	explore the requirements of plants for life and growth (air, light, water, nutrients from	Information about living things that inhabited the Earth millions of years ago	associate the brightness of a lamp or the volume	Sun in the solar system	particular uses of everyday materials, including metals, wood and plastic	
reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and	soil, and room to grow) and how they vary from plant to plant		of a buzzer with the number and voltage of cells used in the circuit	describe the movement of the Moon relative to the Earth	demonstrate that dissolving, mixing and changes of state are reversible changes	
degree of trust in results, in oral and written forms such as displays and other	investigate the way in which water is transported within plants	of the same kind, but normally offspring vary and are not identical to their parents	compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off	describe the Sun, Earth and Moon as approximately spherical bodies	explain that some changes result in the formation of new materials, and that this	
presentations	explore the part that flowers play in the life cycle of flowering plants, including	identify how animals and plants are adapted	position of switches	use the idea of the Earth's rotation to explain day and night and the	kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of	
identifying scientific evidence that has been used to support or refute ideas or arguments	cycle of flowering plants, including pollination, seed formation and seed dispersal	to suit their environment in different ways and that adaptation may lead to evolution	use recognised symbols when representing a simple circuit in a diagram	to explain day and night and the apparent movement of the sun across the sky	and the action of acid on bicarbonate of soda	
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Lower Key Stage 2

Year 4

Light (Yr 3,6)

recognise that they need light in order to see

things and that dark is the absence of light

Year 3

## Currien Ium 14

Upper Key Stage 2

different surfaces

Year 6

Forces and magnets (Yr 3)

compare how things move on

Year 5

https://www.gov.uk/government/publications/national-curriculum-in-england-framework-for-key-stages-1-to-4

Everyday Materials (Yr 1)

distinguish between an object and the

material from which it is made

O Coloma		Key Stage 1		1 Lower Key Stage 2		U	oper Key Stage 2	<b>Curriculum 14</b>
O Science	33	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6	https://www.gov.uk/government/publications/national- curriculum-in-england-framework-for-key-stages-1-to-4
Pupils should be taught to: Working scientifically (Yr 1&2, 3&4, 5&6)	Т	ad their behitete (Vr.2, 4, 5, 6)	Animals, including	humans (Yr 1-6)	Light (Yr 3,6)		Forces and magnets (Yr 3)	Everyday Materials (Yr 1)
asking simple questions and recognising that they can be answered in different ways	Living things and their habitats (Yr 2, 4, 5, 6) explore and compare the differences between things that are living, dead, and		identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals		recognise that they need light in o things and that dark is the absence	order to see ce of light	compare how things move on different surfaces	distinguish between an object and the material from which it is made
observing closely, using simple equipment	things that have	st living things live in habitats	identify and name a variety of common animals that are carnivores, herbivores and		notice that light is reflected from surfaces recognise that light from the sun can be		notice that some forces need contact between two objects, but magnetic forces can act at a distance	identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock
performing simple tests identifying and classifying	to which they are suited and describe how different habitats provide for the basic needs		omnivores		dangerous and that there are ways to protect their eyes			describe the simple physical properties of
using their observations and ideas to suggest answers to questions	of different kind	is of animals and plants, and and on each other	describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals,		recognise that shadows are formed when the light from a light source is blocked by a solid object		observe how magnets attract or repel each other and attract some materials and not others	a variety of everyday materials compare and group together a variety of everyday materials on the basis of their
gathering and recording data to help in answering questions	identify and name a variety of plants and animals in their habitats, including micro- habitats		identify, name, draw and label the basic		find patterns in the way that the size of shadows change		compare and group together a variety of everyday materials on the basis of whether they are attracted	simple physical properties
asking relevant questions and using different types of scientific enquiries to answer them	describe how animals obtain their food from	parts of the human body and say which part of the body is associated with each sense		recognise that light appears to travel in straight		to a magnet, and identify some magnetic materials	Uses of everyday Materials (Yr 2) identify and compare the suitability of a	
setting up simple practical enquiries, comparative and fair tests	plants and othe simple food cha different source	er animals, using the idea of a ain, and identify and name as of food	notice that animals, including humans, have offspring which grow into adults		uses use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye		describe magnets as having two poles	variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses
making systematic and careful observations		iving things can be grouped	find out about and descript of animals, including hu	mans, for survival	-		predict whether two magnets will	find out how the shapes of solid objects
and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers	in a variety of w explore and use group, identify a	e classification keys to help and name a variety of living	(water, food and air) describe the importance		explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes		attract or repel each other, depending on which poles are facing Forces (Yr 5)	made from some materials can be changed by squashing, bending, twisting and stretching
and data loggers	things in their lo	ocal and wider environment	exercise, eating the right amounts of different types of food, and hygiene		use the idea that light travels in st		explain that unsupported objects fall	States of matter (Yr 4)
gathering, recording, classifying and presenting data in a variety of ways to help in answering questions		environments can change n sometimes pose dangers	identify that animals, inc need the right types and and that they cannot ma	cluding humans, d amount of nutrition,	explain why shadows have the sa the objects that cast them Sound (Yr 4)		towards the Earth because of the force of gravity acting between the Earth and the falling object	compare and group materials together, according to whether they are solids,
recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables	describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird		they get nutrition from what they eat		identify how sounds are made, as of them with something vibrating		identify the effects of air resistance, water resistance and friction, that act	liquids or gases observe that some materials change state when they are heated or cooled, and
reporting on findings from enquiries, including oral and written explanations,		e process of reproduction in d animals	animals have skeletons support, protection and	and muscles for	recognise that vibrations from sounds travel through a medium to the ear		between moving surfaces recognise that some mechanisms, including levers, pulleys and gears,	when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C)
displays or presentations of results and conclusions using results to draw simple conclusions,	describe how line broad groups a	ving things are classified into common	parts of the digestive system in humans		find patterns between the pitch of a sound and features of the object that produced it		allow a smaller force to have a greater effect	identify the part played by evaporation and condensation in the water cycle and
make predictions for new values, suggest improvements and raise further questions	similarities and organisms, plar	ccording to common racteristics and based on differences, including micro- nts and animals	identify the different types of teeth in humans and their simple functions		find patterns between the volume the strength of the vibrations that	produced it	Seasonal changes (Yr 1) observe changes across the four	associate the rate of evaporation with temperature
identifying differences, similarities or changes related to simple scientific ideas	give reasons fo animals based	r classifying plants and on specific characteristics	construct and interpret a variety of food chains, identifying producers, predators an prey		recognise that sounds get fainter from the sound source increases	as the distance	seasons observe and describe weather	Properties and changes of materials (Yr 5) compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets know that some materials will dissolve in liquid to form a solution, and describe how
and processes		lants (Yr 1, 2, 3)	describe the changes as humans develop t	s humans develop to	Electricity (Yr 4, 6)	)	associated with the seasons and how day length varies	
using straightforward scientific evidence to answer questions or to support their findings		me a variety of common wild nts, including deciduous and	old age identify and name the m	nain parts of the	identify common appliances that r construct a simple series electrica		Rocks (Yr 3)	
planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary	identify and des	scribe the basic structure of a non flowering plants,	humań circulatory syste functions of the heart, b blood	m, and describe the ood vessels and	identifying and haming its basic pa cells, wires, bulbs, switches and b	arts, including ouzzers	compare and group together different kinds of rocks on the basis of their appearance and simple physical properties	
taking measurements, using a range of scientific equipment, with increasing	observe and de grow into matur	escribe how seeds and bulbs re plants	recognise the impact of and lifestyle on the way	diet, exercise, drugs their bodies function	ise, drugs series circuit, based on whether or not the l is part of a complete loop with a battery	or not the lamp	describe in simple terms how fossils are formed when things that have	to recover a substance from a solution
accuracy and precision, taking repeat readings when appropriate recording data and results of increasing	find out and de water, light and grow and stay l	describe how plants need nd a suitable temperature to y healthy describe the ways in whi water are transported wit including humans		nich nutrients and ithin animals,	is and ls, recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit		lived are trapped within rock recognise that soils are made from rocks and organic matter	use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating
complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs	different parts of	scribe the functions of of flowering plants: roots, ves and flowers	Evolution and inh recognise that living thir	· · · · · · · · · · · · · · · · · · ·	recognise some common conduct insulators, and associate metals v		Earth and space (Yr 5) describe the movement of the Earth,	give reasons, based on evidence from
using test results to make predictions to set up further comparative and fair tests	explore the req and growth (air	uirements of plants for life light, water, nutrients from	recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago		conductors associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells		and other planets, relative to the Sun in the solar system	particular uses of everyday materials, including metals, wood and plastic
reporting and presenting findings from enquiries, including conclusions, causal relationships and explanations of and	soil, and room to grow) and how they vary from plant to plant		recognise that living things produce offspring of the same kind, but normally offspring vary		used in the circuit		describe the movement of the Moon relative to the Earth	demonstrate that dissolving, mixing and changes of state are reversible changes
degree of trust in results, in oral and written forms such as displays and other presentations	transported wit	ted within plants and are no		their parents	compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off		as approximately spherical bodies formation of new materials, a	explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible
identifying scientific evidence that has been used to support or refute ideas or arguments	explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal		identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution				use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky	kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda
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