

This document outlines the progression of science objectives, separated into the following areas:

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	Early Years Scientists:	Key Stage One Scientists:	Lower Key Stage Two Scientists:	Upper Key Stage Two Scientists:
Animals Including Humans	Physical Health: <ul style="list-style-type: none"> I know that exercise is important for my body. (CyA:Su1) I know that some foods are bad for my health. (CyA:Su1) I know that some foods are good for my health. (CyA:Su1) 	Physical Health: <ul style="list-style-type: none"> I know that humans need to exercise to stay healthy. (CyA:Su1) I know that humans should eat the correct balance of each food group. (CyA:Su1) 	Physical Health: <ul style="list-style-type: none"> I know that animals, including humans, need the right types of nutrition to survive. (CyA:Su2) I know that animals, including humans, cannot make their own food. (CyA:Su2) 	Physical Health: <ul style="list-style-type: none"> I know the impact of diet, exercise, drugs and lifestyle on the way the body functions. (CyB:Sp1; CyB:Su2) I know the ways in which nutrients and water are transported within animals, including humans. (CyB:Sp1) I know how the circulatory system enables the body to function. (CyB:Su2) I can explore the work of scientists and scientific research about the relationship between diet, exercise, drugs, lifestyle and health. (CyB:Sp1) I can explore the work of scientists and scientific research to understand the relationship between diet, exercise, drugs, lifestyle and health. (CyB:Su2)
	Body Parts: <ul style="list-style-type: none"> I know the names of different parts of my body. (CyB:Su2) I know that I have different senses including taste, hearing, smell, touch and sight. (CyB:Su2) I know the names of some internal body parts such as the lungs, heart and brain. (CyB:Su2) I can name different parts of my body. (CyB:Su2) 	Body Parts: <ul style="list-style-type: none"> I know which part of the body is associated with each sense. (CyB:Su2) 	Body Parts: <ul style="list-style-type: none"> I know that animals and humans have skeletons and muscles for support, protection and movement. (CyA:Su2) I know why animals and humans have skeletons and muscles. (CyA:Sp1) I know the parts of the digestive system and their functions. (CyB:Sp2) 	Body Parts: <ul style="list-style-type: none"> I know the names of the main parts of the human circulatory system. (CyB:Sp1) I know the functions of the heart, blood vessels and blood. (CyB:Sp1) I can explain how the circulatory system works. (CyB:Sp1)
	Changing from a Baby to an Adult: <ul style="list-style-type: none"> I know that I was a baby when I was born. (CyA:Su1) I know that babies grow. (CyA:Su1) I can sort pictures of a life cycle. (CyA:Su1) I can explain how my body has changed since I was born. (CyA:Su1) 	Changing from a Baby to an Adult: <ul style="list-style-type: none"> I know that animals including humans have offspring that grow into adults (CyA:Su1; CyB:Su2) 		Changing from a Baby to an Adult: <ul style="list-style-type: none"> I know the 6 stages of human development. (CyA:Sp1) I know the changes that occur during puberty. (CyA:Sp1) I know that different species of animal have different gestation periods. (CyA:Sp1)
	Teeth: <ul style="list-style-type: none"> I know how to look after my teeth. (CyA:Su1) 		Teeth: <ul style="list-style-type: none"> I know the names of human teeth. (CyB:Sp2) I know the functions of different human teeth. (CyB:Sp2) 	
	Hygiene: <ul style="list-style-type: none"> I know how to keep clean. (CyA:Su1) I can tell a friend how to keep clean. (CyA:Su1) 	Hygiene: <ul style="list-style-type: none"> I know that humans need good hygiene to stay healthy. (CyA:Su1) 		

<p>Survival:</p> <ul style="list-style-type: none"> • I know that people wear clothes to keep them warm. (CyB:Sp1) • I know that some animals have fur to keep them warm. (CyB:Sp1) • I know that humans need shelter to survive. (CyB:Sp2) • I know that humans need food and water to survive. (CyB:Sp2) • I know that humans need warmth to survive. (CyB:Sp2) • I know that humans need air to survive. (CyB:Sp2) 	<p>Survival:</p> <ul style="list-style-type: none"> • I know that animals including humans need water, food and shelter to survive. (CyA:Su1; CyB:Su2) 	<p>Survival:</p> <ul style="list-style-type: none"> • I know what animals need to survive. (CyA:Sp1) 	
<p>Food chains:</p> <ul style="list-style-type: none"> • I can talk about how food is produced. (CyA:Su1) 	<p>Food chains:</p> <ul style="list-style-type: none"> • I know the differences between birds, reptiles, mammals, fish and amphibians. (CyB:Su2) • I know the differences between carnivores, herbivores and omnivores. (CyB:Su2) 	<p>Food chains:</p> <ul style="list-style-type: none"> • I know how food chains work. (CyB:Su2) • I know the parts that different animals play in food chains. (CyB:Su2) • I can construct a food chain. (CyB:Su2) 	
<p>healthy exercise born adults sort taste feel heart light fruit meat teeth</p> <p>heart move babies life cycle senses hear see lungs dark vegetable healthy clean</p> <p>breathe grow children explore smell touch sight brain shadows dairy unhealthy hygiene</p>	<p>baby teenager nutrition grow growth egg adult amphibians invertebrates omnivores sensitivity reproduction</p> <p>toddler adult respiration strong nutrition larva birds reptiles carnivores movement nutrition</p> <p>child growth healthy energy respiration pupa fish mammals herbivores respiration excretion</p>	<p>nutrition minerals carbohydrates molar oesophagus large intestine predator carnivore</p> <p>diet fats incisor premolar stomach producer prey omnivore</p> <p>vitamins proteins canine saliva small intestine consumer herbivore</p>	<p>gestation species adolescent puberty testosterone heart arteries vessels substance</p> <p>foetus baby adult hormones oestrogen blood pulse valve balanced diet</p> <p>fertilisation toddler elderly person pituitary gland circulatory system veins clotting lifestyle</p>

	Early Years Scientists:	Key Stage One Scientists:	Lower Key Stage Two Scientists:	Upper Key Stage Two Scientists:																																																																																											
Everyday Materials and States of Matter	<p>Materials and their Properties:</p> <ul style="list-style-type: none"> I know the names of different materials including brick, wood and straw. (CyA:Sp1) I know the names of different materials including metal, stone, wood and paper. (CyB:Au1) I know the properties of different materials such as rough, smooth, bumpy and flat. (CyB:Su1) I can describe the properties of materials. (CyB:Au1) I know that different materials have different properties including strong, weak, hard and bendy. (CyB:Au1) I can describe the properties of different fabrics; such as smooth, furry or rough. (CyB:Sp1) I know that there are different types of fabric. (CyB:Sp1) I know that some materials are waterproof. (CyB:Sp1) I know that some materials are heavy and some materials are light. (CyB:Su1) I know that wood comes from trees. (CyB:Au1) I can identify the materials around me. (CyB:Au1) 	<p>Materials and their Properties:</p> <ul style="list-style-type: none"> I know the names of the following materials; wood, plastic, glass, metal and rock. (CyA:Sp1; CyB:Au1) I know the following properties; hard, soft, bendy, rigid, smooth, rough, transparent, opaque and waterproof. (CyA:Sp1; CyB:Au1) I can distinguish the difference between an object and the material from which it is made. (CyA:Sp1; CyB:Au1) I know why different materials are suitable for different uses. (CyB:Au1) I know that some materials can have their shape changed easily. (CyB:Sp2) 	<p>Materials and their Properties:</p> <ul style="list-style-type: none"> I know that some materials can change state. (CyB:Au2) 	<p>Materials and their Properties:</p> <ul style="list-style-type: none"> I know the particular uses of everyday materials, including metals, wood and plastic based on evidence from investigations. (CyA:Au2;CyA:Su1) I know that dissolving, mixing and changes of state are reversible changes. (CyA:Au2;CyA:Su1) I know that some changes result in the formation of new materials, including changes associated with burning. (CyA:Au2,CyA:Su1) 																																																																																											
	<p>Solids, Liquids and Gases:</p> <ul style="list-style-type: none"> I know that ice melts when it gets warm. (CyA:Au2) I can describe the difference between water (liquid) and ice. (solid) (CyA:Au2) I know what fire is. (CyA:Su1) I know that some materials burn. (CyA:Su1) I know that some substances put out fires. (CyA:Su1) I know that water is a liquid. (CyA:Su2; CyB:Au2) I know that some objects float. (CyA:Su2; (CyB:Su1) I know that some objects sink. (CyA:Su2; (CyB:Su1) I can describe the properties of water. (CyA:Su2) I know that rock is a solid. (CyB:Au2) 	<p>Solids, Liquids and Gases:</p> <ul style="list-style-type: none"> I know how the properties of solids and liquids affect how they behave. (CyB:Sp2) 	<p>Solids, Liquids and Gases:</p> <ul style="list-style-type: none"> I know the differences between solid, liquids and gases. (CyB:Au2) I know the stages of the water cycle. (CyB:Au2) 	<p>Solids, Liquids and Gases:</p> <ul style="list-style-type: none"> I know that some materials will dissolve in liquid to form a solution. (CyA:Au2; CyA:Su1) I know how to recover a substance from a solution. (CyA:Au2; CyA:Su1) I know how different mixtures can be separated, through filtering, sieving and evaporating. (CyA:Au2;CyA:Su1) 																																																																																											
	<table border="0"> <tr> <td>fire</td> <td>water</td> <td>burn</td> <td>wet</td> </tr> <tr> <td>smoke</td> <td>sink</td> <td>float</td> <td>surface</td> </tr> <tr> <td>liquid</td> <td>heat</td> <td>cold</td> <td>bumpy</td> </tr> <tr> <td>hot</td> <td>safety</td> <td>materials</td> <td>slow</td> </tr> <tr> <td>metal</td> <td>stone</td> <td>wood</td> <td>speed</td> </tr> <tr> <td>paper</td> <td>properties</td> <td>strong</td> <td>smooth</td> </tr> <tr> <td>weak</td> <td>hard</td> <td>bendy</td> <td>fast</td> </tr> <tr> <td>investigate</td> <td>describe</td> <td>fabric</td> <td>light</td> </tr> <tr> <td>properties</td> <td>warm</td> <td>cold</td> <td>flat</td> </tr> <tr> <td>temperature</td> <td>waterproof</td> <td>rough</td> <td>heavy</td> </tr> <tr> <td>dry</td> <td>properties</td> <td>distance</td> <td></td> </tr> </table>	fire	water	burn	wet	smoke	sink	float	surface	liquid	heat	cold	bumpy	hot	safety	materials	slow	metal	stone	wood	speed	paper	properties	strong	smooth	weak	hard	bendy	fast	investigate	describe	fabric	light	properties	warm	cold	flat	temperature	waterproof	rough	heavy	dry	properties	distance		<table border="0"> <tr> <td>materials</td> <td>properties</td> <td>object</td> </tr> <tr> <td>suitability</td> <td>uses</td> <td>wood</td> </tr> <tr> <td>plastic</td> <td>glass</td> <td>metal</td> </tr> <tr> <td>rock</td> <td>solid</td> <td>liquid</td> </tr> <tr> <td>gas</td> <td>squash</td> <td>bend</td> </tr> <tr> <td>stretch</td> <td>twist</td> <td></td> </tr> </table>	materials	properties	object	suitability	uses	wood	plastic	glass	metal	rock	solid	liquid	gas	squash	bend	stretch	twist		<table border="0"> <tr> <td>solid</td> <td>liquid</td> <td>gas</td> </tr> <tr> <td>melting</td> <td>condensation</td> <td>evaporation</td> </tr> <tr> <td>solidifying</td> <td>freezing</td> <td>particles</td> </tr> <tr> <td>water vapour</td> <td>steam</td> <td>heating</td> </tr> </table>	solid	liquid	gas	melting	condensation	evaporation	solidifying	freezing	particles	water vapour	steam	heating	<table border="0"> <tr> <td>thermal</td> <td>conductor</td> <td>insulator</td> </tr> <tr> <td>solvent</td> <td>solid</td> <td>liquid</td> </tr> <tr> <td>particles</td> <td>suspensions</td> <td>mixtures</td> </tr> <tr> <td>substance</td> <td>solution</td> <td>solvent</td> </tr> <tr> <td>solute</td> <td>soluble</td> <td>insoluble</td> </tr> <tr> <td>solid</td> <td>liquid</td> <td></td> </tr> </table>	thermal	conductor	insulator	solvent	solid	liquid	particles	suspensions	mixtures	substance	solution	solvent	solute	soluble	insoluble	solid	liquid
fire	water	burn	wet																																																																																												
smoke	sink	float	surface																																																																																												
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hot	safety	materials	slow																																																																																												
metal	stone	wood	speed																																																																																												
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investigate	describe	fabric	light																																																																																												
properties	warm	cold	flat																																																																																												
temperature	waterproof	rough	heavy																																																																																												
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materials	properties	object																																																																																													
suitability	uses	wood																																																																																													
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particles	suspensions	mixtures																																																																																													
substance	solution	solvent																																																																																													
solute	soluble	insoluble																																																																																													
solid	liquid																																																																																														

	Early Years Scientists:						Key Stage One Scientists:				
Seasonal Changes	Seasonal Changes: <ul style="list-style-type: none"> I know that there are different weather conditions where I live. (CyA:Au2) I can describe the weather. (CyA:Au2) I know the names of the four seasons. (CyA:Sp2) I can name the four seasons. (CyA:Sp2) I know that the temperature starts to rise in Spring. (CyA:Sp2) I know that some animals wake from hibernation in the spring. (CyA:Sp2) I can explain why some animals hibernate in the winter and wake in spring. (CyA:Sp2) 						Seasonal Changes: <ul style="list-style-type: none"> I know that the length of the day varies throughout the year. (CyA:Au1; CyA:Sp2; CyB:Sp1) I know the types of weather associated with the four seasons. (CyA:Au1; CyA:Sp2; CyB:Sp1) I know that seasonal changes will affect my clothing choices. (CyA:Au1; CyA:Sp2; CyB:Sp1) I know how some animals are affected by the low temperatures in winter. (CyA:Au1; CyB:Sp1) I can describe how the length of the day changes as the seasons change. (CyA:Au1; CyB:Sp1) I know how some plants are affected by rising temperatures. (CyA:Sp2) 				
	spring	summer	autumn	explain	bulbs	seeds	seasons	spring	summer	warm	hot
	winter	temperature	rise	observe	hibernate	seasons	autumn	winter	temperature	mild	cold
	fall	wake	sleep	investigate	grow		degrees Celsius	thermometer	weather vane		

	Early Years Scientists:				Key Stage One Scientists:			Lower Key Stage Two Scientists:			Upper Key Stage Two Scientists:		
Living Things and their Habitats	Habitats: <ul style="list-style-type: none"> I know that some animals live under water while some animals live on land. (CyB:Au2) I know that different animals need different environments to stay alive. (CyB:Au2) I can explain why I could not live under water. (CyB:Au2) 				Habitats: <ul style="list-style-type: none"> I know what a habitat and microhabitat is. (CyA:Au2) I know that most living things need shelter and food to survive. (CyA:Au2) I know that different living things are suited to different habitats. (CyA:Au2) I can describe the conditions in different habitats. (CyA:Au2) 			Habitats: <ul style="list-style-type: none"> I know how changes in environment can cause a danger to living things. (CyB:Su1) 					
	Living Things: <ul style="list-style-type: none"> I know that animals live on my planet. (CyA:Au2) 				Living Things: <ul style="list-style-type: none"> I know that there are seven life processes that all living things do; movement, respiration, sensitivity, nutrition, excretion, reproduction and growth. (CyB:Su2) I know the differences between things that are living, dead and things that have never been alive. (CyB:Su2) I can construct a simple food chain. (CyB:Su2) 			Living Things: <ul style="list-style-type: none"> I know what a vertebrate is. (CyB:Su1) I know what an invertebrate is. (CyB:Su1) I know that plants can be grouped into flowering plants and non-flowering plants. (CyB:Su1) I know the differences between different groups of vertebrate, including: fish, amphibians, reptiles, birds and mammals. (CyB:Su1) I know the differences between different groups of invertebrates, such as snails and slugs, worms, spiders and insects. (CyB:Su1) 			Living Things: <ul style="list-style-type: none"> I know the life process of reproduction in some plants. (CyA:Sp2) I know the life process of reproduction in some animals. (CyA:Sp2) I know the differences in the life cycles of mammals, amphibians, insects and birds. (CyA:Sp2) I know the difference between sexual and asexual reproduction in plants. (CyA:Sp2) I know how living things are classified into broad groups, including micro-organisms, plants and animals. (CyB:Su1) I know the reasons for classifying plants and animals based on specific characteristics. (CyB:Su1) I know the differences in the life cycles of mammals, amphibians, insects and birds. (CyA:Sp2) I know the life process of reproduction in some animals. (CyA:Sp2) 		
	habitats	shelter	survive	environment	habitat	micro-habitat	organism	vertebrate	invertebrate	environment	classification	micro-organism	vertebrate
conditions	warmth	dry	flow				habitat			invertebrate	kingdoms	micro-organism	
damp	wet	air	solid										
waterproof	investigate	healthy	roll										
unhealthy	compare	water	liquid										
rock	land	habitat											

	Early Years Scientists:	Key Stage One Scientists:	Lower Key Stage Two Scientists:	Upper Key Stage Two Scientists:
Plants	Types of Plant: <ul style="list-style-type: none"> I know that plants grow on my planet. (CyA:Au2) I know that fruits and vegetables grow on plants. (CyA:Su1) 	Types of Plant: <ul style="list-style-type: none"> I know the names of the following plants; daffodils, daisies, buttercups, roses, poppies, tulips and dandelions. (CyA:Su2; CyB:Su1) I know that there are evergreen and deciduous trees. (CyA:Su2; CyB:Su1) 		
	Parts of a Plant: <ul style="list-style-type: none"> I know that plants have roots, leaves and stems. (CyA:Sp1) I can name the roots, leaves and stem of a plant. (CyA:Sp1) 	Parts of a Plant: <ul style="list-style-type: none"> I know the basic structure of a flowering plant including a stem, leaves, roots and petals. (CyA:Su2; CyB:Su1) 	Parts of a Plant: <ul style="list-style-type: none"> I know the functions of each part of a flowering plants (roots, stem/trunk, leaves and flowers). (CyA:Su1) 	
	Growing Healthy Plants: <ul style="list-style-type: none"> I know that plants grow from seeds. (CyA:Sp1) I know that plants need water, soil and sunlight to grow healthily. (CyA:Sp1) I know that plants need sunlight to grow. (CyA:Sp2) I know that plants grow from seeds and bulbs. (CyA:Sp2) 	Growing Healthy Plants: <ul style="list-style-type: none"> I know that plants need water, light and warmth to grow healthily. (CyA:Su2; CyB:Su1) 	Growing Healthy Plants: <ul style="list-style-type: none"> I know what plants need to grow. (CyA:Su1) I know the part that flowers play in the plant's life cycle. (CyA:Su1) 	Growing Healthy Plants: <ul style="list-style-type: none"> I know the life process of reproduction in some plants. (CyA:Sp2) I know the difference between sexual and asexual reproduction in plants. (CyA:Sp2)
	plants seeds grow roots stem leaves water soil sunlight materials observe compare investigate	roots branch trunk stalk leaf flower petal seeds bulb twigs evergreen deciduous water light heat temperature	roots branch trunk stalk leaf flower petal seeds bulbs twigs petal stamen carpel pollination fertilisation germination	pollination fertilisation germination petal stamen anther filament carpel stigma style ovary ovule

Lower Key Stage Two Scientists:			
Rocks	<ul style="list-style-type: none"> I know the three different types of rocks. (CyA: Au2) I know how fossils are formed. (CyA: Au2) I know how soil is formed. (CyA: Au2) I know how rocks may change in water. (CyA: Au2) 		
	sedimentary heat transportation solidify	metamorphic pressure deposition	igneous erosion melt

Lower Key Stage Two Scientists:			Upper Key Stage Two Scientists:			
Light	<ul style="list-style-type: none"> I know that light is needed in order to see things. (CyA: Sp2) I know that dark is the absence of light. (CyA: Sp2) I know that light is reflected from surfaces. (CyA: Sp2) I know how and why I need to protect my eyes from the sun. (CyA: Sp2) I know how shadows are formed and how they change. (CyA: Sp2) 			<ul style="list-style-type: none"> I know that light appears to travel in straight lines. (CyB: Au2) I know that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes. (CyB: Au2) I know that objects are seen because they give out or reflect light into the eye. (CyB: Au2) I know that light travels in straight lines so shadows have the same shape as the objects that cast them. (CyB: Au2) 		
	opaque block reflection	translucent absence of light sunset	transparent reflect sunrise	reflection opaque	refraction translucent	light source transparent

Lower Key Stage Two Scientists:			Upper Key Stage Two Scientists:			
Forces and Magnets	<ul style="list-style-type: none"> I know that magnets can attract and repel. (CyA, Au1) I know that objects move differently on different surfaces. (CyA, Au1) I know that magnets have two poles. (CyA, Au1) I know the difference between a push and a pull. (CyA: Au1) 			<ul style="list-style-type: none"> I know that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. (CyA: Au1) I know about the effects of air resistance, water resistance and friction that act between moving surfaces. (CyA: Au1) I know that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. (CyA: Au1) 		
	attract south pole pull	repel magnetic field friction	north pole push	gravity particles Newtons	friction upthrust Newton metre	air resistance weight

Lower Key Stage Two Scientists:			
Sound	<ul style="list-style-type: none"> I know that sound is made from vibrations. (CyB: Au1) I know the differences between patterns of vibrations. (CyB: Au1) I know that sounds get fainter as the distance from the sound source increases. (CyB: Au1) 		
	vibration wave	volume source	pitch decibel

		Lower Key Stage Two Scientists:			Upper Key Stage Two Scientists:		
Electricity		<ul style="list-style-type: none"> I know that some common appliances run on electricity. (CyB:Sp1) I know how to construct a simple series electrical circuit. (CyB:Sp1) I know some common electrical conductors and insulators. (CyB:Sp1) I know that a switch opens and closes a circuit. (CyB:Sp1) I know how to work safely when working with electricity. (CyB:Sp1) 			<ul style="list-style-type: none"> I know what the components of the circuit are. (CyB:Au1) I know the electrical symbol for each component. (CyB:Au1) I know that the brightness of a bulb is determined by the number and voltage of cells used in a circuit. (CyB:Au1) I know that the volume of a buzzer is determined by the number and voltage of cells used in a circuit. (CyB:Au1) 		
		appliance	circuit	battery	volts	resistance	conductor
	bulb	switch	buzzer	insulator	circuit	battery	
	wire	conductor	insulator	bulb	switch	buzzer	
				wire	cell		

		Early Years Scientists:		Key Stage One Scientists:		Lower Key Stage Two Scientists:		Upper Key Stage Two Scientists:		
Earth and Space		<ul style="list-style-type: none"> I know that rocks, water and ice can be found on my Earth. (CyA:Au2) 						<ul style="list-style-type: none"> I know that the Sun is a star at the centre of our solar system. (CyA:Su2) I know that our solar system has eight planets: Mercury, Venus, Earth, Mars, Jupiter, Saturn, Uranus and Neptune. (Pluto is a 'dwarf planet.'). (CyA:Su2) I know that a moon is a celestial body that orbits a planet. (CyA:Su2) I know that the movement of the Earth, and other planets, is relative to the Sun in the solar system. (CyA:Su2) know that the movement of the Moon relative to the Earth. (CyA:Su2) I know that the Sun, Earth and Moon are approximately spherical bodies. (CyA:Su2) I know how the Earth's rotation explains day and night and the apparent movement of the Sun across the sky. (CyA:Su2) I know that it is not safe to look directly at the Sun. (CyA:Su2) 		
		weather	land	water					Earth	axis
	ice	melts	freezes					star	Sun	planets
	warm	heated	grow					Mercury	Venus	Earth
	plants	animals	describe					Mars	Jupiter	Saturn
	observe	explore						Uranus	Neptune	full moon
								gibbous moon	new moon	waxing
								waning	orbit	planets
									revolve	sphere

		Upper Key Stage Two Scientists:							
Evolution and Inheritance		<ul style="list-style-type: none"> I know that fossils provide information about living things that inhabited the Earth millions of years ago. (CyB:Sp2) I know that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. (CyB:Sp2) I know that animals and plants are adapted to suit their environment in different ways. (CyB:Sp2) I can explore how palaeontologists such as Mary Anning, Charles Darwin and Alfred Wallace developed their ideas of evolution. (CyB:Sp2) I can analyse the advantages and disadvantages of specific adaptations to animals and plants. (CyB:Sp2) 							
		evolution	inheritance	kingdoms	micro-organism	adapted	evolved	advantages	disadvantages

	Early Years Scientists:	Key Stage One Scientists:	Lower Key Stage Two Scientists:	Upper Key Stage Two Scientists:
Working Scientifically	<p>Observing:</p> <ul style="list-style-type: none"> I can make observations and drawings of animals. (CyA: Au2) I can make observations and drawings of plants. (CyA: Au2) I can make observations as a plant grows. (CyA: Sp1) I can observe how my environment changes in spring. (CyA: Sp2) 	<p>Observing:</p> <ul style="list-style-type: none"> I can observe which animals I see in the spring or summer. (CyA: Sp2) I can observe and record the life cycle of an animal such as a frog or a butterfly. (CyA: Su1) I can observe and describe how seeds and bulbs grow into mature plants. (CyA: Su2; CyB: Su1) 	<p>Observing:</p> <ul style="list-style-type: none"> I can observe and explore how rocks change over time, using scientific equipment such as a hand lens. (CyA: Au2) I can make observations to understand that vibrations from sounds travel through a medium to the ear. (CyB: Au1) I can make systematic and careful observations to find patterns in the way that the size of shadows change. (CyA: Sp2) 	<p>Observing:</p> <ul style="list-style-type: none"> I can observe and compare the life cycles of plants and animals in the local environment and other plants and animals around the world, such as in rainforests and oceans. (CyA: Sp2)
	<p>Exploring and Investigating:</p> <ul style="list-style-type: none"> I can explore how my body feels when I exercise. (CyA: Au1) I can explore what happens to ice when it is heated. (CyA: Au2) I can investigate the differences between solids and liquids. (CyB: Au2) I can investigate the strength of different materials. (CyA: Sp1) I can investigate how the temperature changes. (CyA: Sp2) I can investigate which objects float and which objects sink. (CyA: Su2) I can investigate the strength of materials. (CyB: Au1) I can explore which materials keep you warm. (CyB: Sp1) I can explore which materials keep you dry. (CyB: Sp1) I can investigate the properties of materials when making a shelter. (CyB: Sp2) I can investigate how a toy car moves along different surfaces. (CyB: Su1) I can investigate the speed at which different materials fall. (CyB: Su1) I can explore tastes. (CyB: Su2) I can explore smells. (CyB: Su2) I can investigate shadows. (CyB: Su2) 	<p>Exploring and Investigating:</p> <ul style="list-style-type: none"> I can investigate the conditions needed for growth. (CyA: Su2; CyB: Su1) I can investigate how the shape of solid objects can be changed by squashing, bending, twisting and stretching. (CyB: Au1; CyB: Sp2) I can investigate how different liquids flow. (CyB: Sp2) I can investigate whether a plant can breathe. (CyB: Su2) 	<p>Exploring and Investigating:</p> <ul style="list-style-type: none"> I can investigate whether or not magnetic forces can act a distance. (CyA: Au1) I can investigate what happens when rocks are rubbed together. (CyA: Au2) I can explore similarities and differences between different soils. (CyA: Au2) I can investigate what happens when rocks are rubbed together. (CyA: Au2) I can set up a fair test to investigate how water is transported through a plant. (CyA: Su1) I can set up a simple practical enquiry to observe how seeds are formed. (CyA: Su1) I can use scientific models to investigate how humans get nutrition from what they eat. (CyA: Su2) I can use a data logger to take measurements. (CyB: Au1) I can set up a fair test to investigate the patterns between the pitch of the sound and the features of the object that produced it. (CyB: Au1) I can investigate the temperature at which some materials change state. (CyB: Au2) I can measure temperatures using a thermometer and/or a data logger. (CyB: Au2) I can predict whether or not a lamp will light in a simple series circuit. (CyB: Sp1) I can investigate how to make a bulb brighter. (CyB: Sp1) I can carry out a fair test to investigate what damages teeth, and how to look after them. (CyB: Sp2) I can explore examples of human impact on environments. (CyB: Su1) 	<p>Exploring and Investigating:</p> <ul style="list-style-type: none"> I can make a prediction based on previously learned scientific knowledge. (CyA: Au1; CyB: Au1; CyB: Au2) I can plan an investigation to explore air resistance. (CyA: Au1) I can recognise and control variables where necessary. (CyA: Au1) I can take measurements to collect data, using a range of scientific equipment with increasing accuracy and precision. (CyA: Au1; CyA: Au2; CyA: Su1; CyB: Au1; CyB: Au2) I can control variables to conduct a fair test when investigating the components of mixtures. (CyA: Au2; CyA: Su1) I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, to investigate growth. (CyA: Sp1) I can plan an investigation to test how to grow new plants from a parent plant. (CyA: Sp2) I can plan a scientific enquiry to investigate why some people think that structures such as Stonehenge might have been used as a clock. (CyA: Su2) I can plan a scientific enquiry to investigate the effect of changes in voltage or number of cells. (CyB: Au1) I can plan a scientific enquiry to investigate the effect of a prism on a single beam of light. (CyB: Au2)

Working Scientifically	<p>Sorting, Comparing and Classifying:</p> <ul style="list-style-type: none"> I can sort solids and liquids. (CyA: Au2) I can sort foods into the groups: food from plants, food from animals. (CyA: Su1) I can sort food into the groups healthy and unhealthy. (CyA: Su1; CyB: Sp2) I can compare the habitats of different animals. (CyB: Au2) I can compare safe and unsafe habitats. (CyB: Sp2) 	<p>Sorting, Comparing and Classifying:</p> <ul style="list-style-type: none"> I can compare what I find in different habitats. (CyA: Au2) I can compare the suitability of a variety of everyday materials with particular uses. (CyA: Sp1) I can compare and group together a variety of everyday materials on the basis of their properties. (CyA: Sp1; CyB: Au1) I can describe and compare the structure of a variety of common animals. (CyB: Au2) I can compare my height to the height of an adult. (CyA: Su1) I can group and classify animals based on what they eat. (CyB: Au2) I can classify things that are living, dead or never alive. (CyB: Su2) 	<p>Sorting, Comparing and Classifying:</p> <ul style="list-style-type: none"> I can compare and group materials based on whether or not they are attracted to a magnet. (CyA: Au1) I can compare and classify different kinds of rocks based on their appearance and properties. (CyA: Au2) I can compare and classify rocks according to whether they have grains or crystals. (CyA: Au2) I can compare and classify animals with and without skeletons. (CyA: Sp1) I can decide how to classify animals based on their diet. (CyA: Sp1) I can compare, contrast and classify the diets of different animals. (CyA: Su2) I can create and use classification keys to group vertebrates and invertebrates. (CyB: Su1) I can compare and contrast the different teeth of different animals, suggesting reasons for their differences. (CyB: Su2) 	<p>Sorting, Comparing and Classifying:</p> <ul style="list-style-type: none"> I can compare and classify materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets. (CyA: Au2; CyA: Su1) I can compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches. (CyB: Au1) I can make a key to classify plants. (CyB: Su1) I can create a classification system. (CyB: Su1)
	<p>Recording Findings:</p> <ul style="list-style-type: none"> I can describe the properties of different materials. (CyA: Sp1) I can talk about fire safety. (CyA: Su2) I can talk about water safety. (CyA: Su2) 	<p>Recording Findings:</p> <ul style="list-style-type: none"> I can plot changes in the weather on a chart. (CyA: Au1; CyA: Sp2; CyB: Sp1) I can make a graph to record how many minibeasts were observed in their habitat. (CyA: Au2) I can draw diagrams showing the parts of different plants including trees. (CyA: Su2; CyB: Su1) I can record my findings in a table. (CyB: Sp2) 	<p>Recording Findings:</p> <ul style="list-style-type: none"> I can record my findings in a table. (CyA: Au1; CyB: Au1; CyB: Au2) I can record my observations in a Venn diagram or a table. (CyA: Au2) I can use bar charts to record my findings. (CyA: Sp2) I can record my findings in labelled diagrams. (CyA: Su2) I can record my findings in a graph. (CyB: Au1, CyB: Au2) I can use diagrams to report my findings. (CyB: Sp2) I can record data in a table when investigating plants and animals in their habitats. (CyB: Su1) I can record data in a graph when investigating plants and animals in their habitats. (CyB: Su1) 	<p>Recording Findings:</p> <ul style="list-style-type: none"> I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and/or bar and line graphs. (CyA: Au1; CyA: Au2; CyA: Sp1; CyA: Su1) I can report and present findings from enquires, including conclusions, causal relationships and explanations of results (in oral and written forms). (CyA: Au1; CyA: Au2; CyA: Su1) I can report and present findings from research about the gestation periods of different animals, including conclusions, causal relationships and explanations, in oral and written forms such as displays and other presentations. (CyA: Sp1; CyB: Au1; CyB: Au2) I can understand and draw scientific diagrams with labels. (CyA: Sp2) I can record data and results of increasing complexity using scientific diagrams and labels, when tracking the phases of the moon. (CyA: Su2)