

M=materials    A=Animals incl humans    E&S= Earth and Space  
 P=Plants        R=Rocks and soils        F=Forces  
 L=Living things    S=Seasonal changes    E= Electricity

Mixed Age Planning Objective Overview  
EYFS, Year1/2, Year 3/ 4, Year 5/ 6

Cycle 1 First Year	EYFS	Year 1 and 2	Year 3 and 4	Year 5 and 6
Term 1 (Autumn)	All about me	Material World	Nurturing Nature	Out of this world
	Explore the world around them, making observations and drawing pictures of themselves and others. Know similarities and differences between the natural world around them. Work and play cooperatively and take turns with others.	MY1 -Distinguish between an object and the material from which it is made. Identify and name a variety of everyday materials incl wood, plastic, glass, metal, water and rock. -Describe the simple physical properties of a variety of materials. -Compare and group together a variety of everyday materials on the basis of their simple properties. MY2 -Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, rock, brick, paper and cardboard for particular uses.	PY3 -Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers. - Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant. - Investigate the way in which water is transported within plants. - Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal LY4 -Recognise that living things can be grouped in a variety of ways. -Explore and use classification keys to help group, identify and name a variety of living things in their local environment.-Recognise that environments can change and that this can sometimes pose dangers to living things.	MY5 -Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution. -Use knowledge of solids, liquids gases to decide how mixtures might be separated, including through filtering, sieving and evaporating. -Demonstrate that dissolving, mixing and changes of state are reversible changes. -Explain that some changes result in the formation of new materials and this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda. E&S Y5 -Describe the movement of the Earth and other planets, relative to the sun in the solar system. -Describe the movement of the moon relative to the Earth. -Describe the Sun, Earth and Moon as approximately spherical bodies. -Use Earth rotation to explain day and night due to the apparent movement of the sun across the sky.
Term 2 (Spring)		Under the sea	Looking after plants	Archaeology
	Explore the natural world around them, making observations and drawing pictures of animals and plants. -I can identify animal habitats. -I can group fish based on my observations -I can make observations of the natural world. Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	PY1 -Identify and describe the basic structure of a variety of common flowering plants, including trees. PY2 -Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. SY1 Observe changes across the four seasons. Observe and describe weather associated with the seasons and how day length varies	RY3 - Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties. -Describe in simple terms how fossils are formed when things that have lived are trapped within a rock. -Recognise that soils are made from rocks and organic matter AY3 Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat.	LY5 Describe the differences in the lifecycles of a mammal, an amphibian, an insect and a bird. Describe the life processes of reproduction in some plants and animals. AY5 Describe the changes as humans develop from birth to old age.

	<p>-I understand why things float or sink</p> <p>Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.</p> <p>- I can make observations of plants and animals</p>			<p>AY4</p> <p>-Identify the different types of teeth in <b>animals</b> and their simple functions.</p> <p>-Construct and <b>interpret</b> a variety of food chains, <b>identifying</b> producers, predators and prey.</p>			
				<p>LY4 repeated obj</p> <p>-Recognise that environments can change and that this can sometimes pose dangers to living things. <b>This has been repeated to help consolidate.</b></p> <p>-Explore and use <b>classification keys</b> to help group, <b>identify and name</b> a variety of living things in their local environment. <b>This has been repeated to help consolidate</b></p>			
Term 3 (Summer)	Colour	The Human Body and staying healthy.		Movie Magic		Engineering	
	<p>ELG: I can explore the world around me, making observations of colour.</p> <p>-ELG: I can participate in discussions and offer my own ideas using scientific words.</p> <p>-ELG: I understand some important processes and changes in the world, including colour and how they change by mixing.</p>	AY1	<p>-Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.</p> <p>- Identify and name a variety of common animals that are carnivores, herbivores and omnivores.</p> <p><b>Identify</b>, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense</p>	Light Y3	<p><b>Recognise</b> that they need light in order to see things and that dark is the absence of light.</p> <p><b>Notice</b> that light is reflected from surfaces.</p> <p><b>Recognise</b> that light from the sun can be dangerous and that there are ways to protect our eyes.</p> <p><b>Recognise</b> that shadows are formed when the light source is blocked by a solid object.</p> <p><b>Find patterns</b> in the way the size of the shadows change.</p>	FY5	<p>-Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.</p> <p>-Identify the effects of air resistance, water resistance and friction that act between moving surfaces.</p> <p>-Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</p>
	Keeping Healthy	AY2	<p>-Notice that animals, including humans, have offspring which grow into adults.</p> <p>-Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</p>				
	<p>Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.</p> <p>Show sensitivity to their own and to others' needs.</p>	LY2	<p>-Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.</p>	Sound Y4	<p>To <b>identify</b> how sounds are made, associating some of them with something vibrating.</p> <p><b>Recognise</b> that vibrations from sounds travel through a medium to the ear.</p> <p><b>Find patterns</b> between pitch of a sound and features of the object that produced it.</p> <p>Find patterns between the volume of a sound and the strength of the vibrations that produced it.</p> <p><b>Recognise</b> that sound gets fainter as the distance from the sound source increases.</p>	MY5	<p><b>Compare and group</b> together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal) and response to magnets.</p> <p>Give reasons, based on evidence from <b>comparative and fair tests</b>, for the particular uses of everyday materials, including metals wood and plastic.</p>

Cycle 2 Second Year	EYFS	Year 1 and 2	Year 3 and 4	Year 5 and 6		
Term 1 (Autumn)	Animals	Animal Safari	The Amazing Human Body	Bright Sparks		
	<p>I can understand the similarities and differences <i>of animals</i> in this country and in other countries.</p> <p>I can recognise some environments that are different to the one in which they live.</p> <p>I can understand the effect of changing seasons on the natural world.</p> <p>I can engage in non-fiction books.</p> <p>I can revise and refine my fundamental movement skills.</p>	AY1	<p>-Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. <b>Repeat objective for consolidation.</b></p> <p>-Identify and name a variety of common animals that are carnivores, herbivores and omnivores. <b>Repeat objective for consolidation.</b></p> <p>-Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)</p> <p>- Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)</p>	AY3	MY5	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. <b>Repeat objective for consolidation.</b>
		LY2		<p>-Explore and compare the differences between things that are living, dead, and things that have never been alive.</p> <p>-Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other,</p> <p>-Identify and name a variety of plants and animals in their habitats, including microhabitats</p>	AY4	LY6
		AY2	<p>Notice that animals, including humans, have offspring which grow into adults. <b>Repeat objective for consolidation.</b></p>		EY6	<p>Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.</p> <p>Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off potion of switches.</p> <p>Use recognised symbols when representing a simple circuit in a diagram.</p>
Term 2 (Spring)	Traditional Tales	Changing Materials	From the Amazon Rainforest to Antarctica.	Following Darwins Steps		
	<p>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p> <p>Know some similarities and differences between the natural world around them and</p>	MY1	<p>-Distinguish between an object and the material from which it is made. <b>Repeated from cycle 1 for consolidation.</b></p> <p>-Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.</p> <p>-Describe the simple physical properties of a variety of everyday materials.</p>	SoM Y4	<p>-Compare and group materials together, according to whether they are solids, liquids or gases.</p> <p>-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 (States of matter)</p>	E&I Y6
MY2						

	<p>contrasting environments, drawing on their experiences and what has been read in class.</p> <p>Offer explanations for why things might happen, making use of recently introduced vocabulary from stories</p> <p><b>People who help us</b></p> <p>Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.</p> <p>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p> <p>Talk about the lives of the people around them and their roles in society.</p>		<p>-Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>		<p>-Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p>	LY6	<p>-Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals.</p> <p>Give reasons for classifying plants and animals based on specific characteristics</p>
				LY4	<p>Recognise that living things can be grouped in a variety of ways. <b>Repeat of obj for consolidation</b></p> <p>Explore and use classification keys to help group, identify and name a variety of living things in their local environment.</p> <p>Recognise that environments can change and that this can sometimes pose dangers to living things <b>Repeat of obj for consolidation</b></p>		
				AY4	<p>Construct and interpret a variety of food chains, identifying producers, predators and prey. <b>Repeat of obj for consolidation</b></p>		
Term 3 (Summer)	<p><b>Minibeasts and Growing</b></p> <p>I can understand important changes and processes in the natural world.</p> <p>I can explore the natural world around me.</p> <p>Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.</p> <p>I can use my observations and skills to make a model.</p> <p><b>Seasons</b></p> <p>Understand some important processes and changes in the natural world around them, including seasonal changes. (ELG Natural World)</p> <p>Describe their immediate environment using knowledge from observation, discussion and stories (ELG people and communities)</p> <p>Explore the natural world around them, making observations and</p>	<p><b>How does your garden grow?</b></p>			<p><b>How Stuff works</b></p>		<p><b>Healthy Body Healthy Mind</b></p>
		PY1	<p>-Name common plants and describe the basic structure of flowering plants, including deciduous and evergreen.</p> <p>-Identify and describe the basic structure of a variety of common flowering plants, including trees. <b>Revisit of objective to consolidate.</b></p>	EY4	<p>-Identify common appliances that run on electricity.</p> <p>-Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.</p> <p>-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</p> <p>-Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.</p> <p>-Recognise some common conductors and insulators, and associate metals with being good conductors.</p>	A Y6	<p>-Identify and name the main parts of the human circulatory system and describe the function of the heart, blood vessels and blood. <b>Repeat of obj for consolidation</b></p> <p>-Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.</p>
		PY2	<p>Observe and describe how seeds and bulbs grow into mature plants</p>	FY3	<p>Compare how things move on different surfaces</p> <p>Notice that some forces need contact between two objects, but magnetic forces can act at a distance.</p> <p>Observe how magnets attract or repel each other and attract some materials and not others.</p> <p>Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials.</p> <p>Describe magnets as having two poles.</p>		

	<p>drawing pictures of animals and plants (ELG Natural World) Know the similarities and differences between the natural world around drawing on experiences of what has been read in class. (ELG Natural world)</p>				<p>Predict whether two magnets will attract or repel each other, depending on which poles are facing.</p>		
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