

M=materials A=Animals incl humans E&S= Earth and Space
P=Plants R=Rocks and soils F=Forces
L=Living thins 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.	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	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.
		MY2	-Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, rock, brick, paper and cardboard for particular uses.	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.	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		Living, growing and changing	
	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. -I understand why things float or sink 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.	PY1	-Identify and describe the basic structure of a variety of common flowering plants, including trees.	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	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.
		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	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.	AY5	Describe the changes as humans develop from birth to old age.
				AY4	-Identify the different types of teeth in animals and their simple functions. -Construct and interpret a variety of food chains, identifying producers, predators and prey.		

	- I can make observations of plants and animals						
				LY4 repeated obj	-Recognise that environments can change and that this can sometimes pose dangers to living things. This has been repeated to help consolidate. -Explore and use classification keys to help group, identify and name a variety of living things in their local environment. This has been repeated to help consolidate		
Term 3 (Summer)	Colour	The Human Body and staying healthy.		Movie Magic		Engineering	
	ELG: I can explore the world around me, making observations of colour. -ELG: I can participate in discussions and offer my own ideas using scientific words. -ELG: I understand some important processes and changes in the world, including colour and how they change by mixing.	AY1	-Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. - Identify and name a variety of common animals that are carnivores, herbivores and omnivores. Identify , name, draw and label the basic parts of the human body and say which part of the body is associated with each sense	Light Y3	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 and that there are ways to protect our eyes. Recognise that shadows are formed when the light source is blocked by a solid object. Find patterns in the way the size of the shadows change.	FY5	-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. -Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.
	Keeping Healthy	AY2	-Notice that animals, including humans, have offspring which grow into adults. -Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.			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. Give reasons, based on evidence from comparative and fair tests , for the particular uses of everyday materials, including metals wood and plastic.
	Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices. Show sensitivity to their own and to others' needs.	LY2	-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.	Sound Y4	To identify how sounds are made, associating some of them with something vibrating. Recognise that vibrations from sounds travel through a medium to the ear. Find patterns between pitch of a sound and features of the object that produced it. Find patterns between the volume of a sound and the strength of the vibrations that produced it. Recognise that sound gets fainter as the distance from the sound source increases.		

Cycle 2 Second Year	EYFS	Year 1 and 2		Year 3 and 4		Year 5 and 6	
Term 1 (Autumn)	Animals I can understand the similarities and differences <i>of animals</i> in this country and in other countries. I can recognise some environments that are different to the one in which they live. I can understand the effect of changing seasons on the natural world. I can engage in non-fiction books. I can revise and refine my fundamental movement skills.	Animal Safari		The Amazing Human Body		Bright Sparks	
		AY1	-Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. Repeat objective for consolidation. -Identify and name a variety of common animals that are carnivores, herbivores and omnivores. Repeat objective for consolidation. -Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) -Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)	AY3	-Identify that humans and some other animals have skeletons and muscles for support, protection and movement. -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. Repeat objective for consolidation.	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. Repeat objective for consolidation.
		LY2	-Explore and compare the differences between things that are living, dead, and things that have never been alive. -Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other, -Identify and name a variety of plants and animals in their habitats, including microhabitats	AY4	-Describe the simple functions of the basic parts of the digestive system in humans. -Identify the different types of teeth in humans and their simple functions.	LY6	Recognise that light travels in straight lines. 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. 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. Use the idea that light travels in straight lines to explain why shadows have the same shape as the object that casts them.
		AY2	Notice that animals, including humans, have offspring which grow into adults. Repeat objective for consolidation.			EY6	Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit. 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. Use recognised symbols when representing a simple circuit in a diagram.
Term 2 (Spring)	Traditional Tales Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. 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. Offer explanations for why things might happen, making use of recently introduced vocabulary from stories	Changing Materials		From the Amazon Rainforest to Antarctica.		Following Darwins Steps	
		MY1	-Distinguish between an object and the material from which it is made. Repeated from cycle 1 for consolidation. -Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. -Describe the simple physical properties of a variety of everyday materials.	SoM Y4	-Compare and group materials together, according to whether they are solids, liquids or gases. -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) -Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.	E&I Y6	-Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. -Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. -Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.
		MY2	-Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.	LY4	Recognise that living things can be grouped in a variety of ways. Repeat of obj for consolidation	LY6	-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. Give reasons for classifying plants and animals based on specific characteristics

	People who help us				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 Repeat of obj for consolidation		
	Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices. Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. Talk about the lives of the people around them and their roles in society.			AY4	Construct and interpret a variety of food chains, identifying producers, predators and prey. Repeat of obj for consolidation		
Term 3 (Summer)	Minibeasts and Growing	How does your garden grow?		How Stuff works		Healthy Body Healthy Mind	
	I can understand important changes and processes in the natural world. I can explore the natural world around me. Safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function. I can use my observations and skills to make a model.	PY1	-Name common plants and describe the basic structure of flowering plants, including deciduous and evergreen. -Identify and describe the basic structure of a variety of common flowering plants, including trees. Revisit of objective to consolidate.	EY4	-Identify common appliances that run on electricity. -Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. -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 -Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit. -Recognise some common conductors and insulators, and associate metals with being good conductors.	A Y6	-Identify and name the main parts of the human circulatory system and describe the function of the heart, blood vessels and blood. Repeat of obj for consolidation -Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.
	Seasons	PY2	Observe and describe how seeds and bulbs grow into mature plants	FY3	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 materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials. Describe magnets as having two poles. Predict whether two magnets will attract or repel each other, depending on which poles are facing.		
	Understand some important processes and changes in the natural world around them, including seasonal changes. (ELG Natural World) Describe their immediate environment using knowledge from observation, discussion and stories (ELG people and communities) Explore the natural world around them, making observations and 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)						