



Programme of Study for EYFS, Key Stage 1 and Key Stage 2

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Animals, including Humans						
<p>PSED- Nursery</p> <p>Be increasingly independent in meeting their own care needs, e.g., brushing teeth, using the toilet, washing and drying their hands thoroughly.</p> <p>Make healthy choices about food, drink, activity and toothbrushing.</p> <p>PSED- Reception</p> <p>Know and talk about the different factors that support their overall health and wellbeing:</p> <p>regular physical activity healthy eating toothbrushing sensible amounts of 'screen time' having a good sleep routine being a safe pedestrian</p>	<ul style="list-style-type: none"> 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 Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense 	<ul style="list-style-type: none"> Notice that animals, including humans, have offspring which grow into adults Find out about and describe the basic needs of animals, including humans, for survival (water, food and air) Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. 	<ul style="list-style-type: none"> 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 Identify that humans and some other animals have skeletons and muscles for support, protection and movement. 	<ul style="list-style-type: none"> 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 Construct and interpret a variety of food chains, identifying producers, predators and prey. 	<ul style="list-style-type: none"> Describe the changes as humans develop to old age. 	<ul style="list-style-type: none"> Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function Describe the ways in which nutrients and water are transported within animals, including humans.
Living Things						
<p>UTW- Nursery</p> <p>Use all their senses in hands-on exploration of natural materials.</p>		<ul style="list-style-type: none"> 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 		<ul style="list-style-type: none"> Recognise that living things can be grouped in a variety of ways Explore and use classification keys to help group, identify and name a 	<ul style="list-style-type: none"> Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird Describe the life process of reproduction in some plants and animals. 	<ul style="list-style-type: none"> 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>Explore collections of materials with similar and/or different properties.</p> <p>Talk about what they see, using a wide vocabulary.</p> <p>UTW Reception</p>		<p>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> <ul style="list-style-type: none"> • Identify and name a variety of plants and animals in their habitats, including micro-habitats • 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>variety of living things in their local and wider environment</p> <ul style="list-style-type: none"> • Recognise that environments can change and that this can sometimes pose dangers to living things. 		<ul style="list-style-type: none"> • Give reasons for classifying plants and animals based on specific characteristics.
---	--	---	--	--	--	--

Plants

<p>UTW</p> <ul style="list-style-type: none"> • To know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. 	<ul style="list-style-type: none"> • Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. • Identify and describe the basic structure of a variety of common flowering plants, including trees. • Observe changes across the four seasons • Observe and describe weather associated with the seasons and how day length varies. 	<ul style="list-style-type: none"> • Observe and describe how seeds and bulbs grow into mature plants • Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. 	<ul style="list-style-type: none"> • 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. 		<ul style="list-style-type: none"> • Reproduction of plants. 	
--	---	---	--	--	---	--

Electricity

				<ul style="list-style-type: none"> • 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 		<ul style="list-style-type: none"> • 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
--	--	--	--	---	--	---

				<ul style="list-style-type: none"> • 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. 		<ul style="list-style-type: none"> • Use recognised symbols when representing a simple circuit in a diagram.
--	--	--	--	---	--	---

Forces

		(Link to materials – some materials can be changed by force)	<ul style="list-style-type: none"> • 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 • Describe magnets as having two poles • Predict whether two magnets will attract or repel each other, depending on which poles are facing. • 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 		<ul style="list-style-type: none"> • 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. 	
--	--	--	--	--	--	--

Materials/Properties and changing materials

<p>EAD</p> <ul style="list-style-type: none"> • To begin to be interested in and describe the texture of things. <p>UTW</p> <ul style="list-style-type: none"> • To know about similarities and differences in relation to places, objects, materials and living things. They talk about the features of their own immediate environment and how environments might vary from one another. 	<ul style="list-style-type: none"> • Distinguish between an object and the material from which it is made • 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 • Compare and group together a variety of everyday materials on the basis of their simple physical properties. 	<ul style="list-style-type: none"> • Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses • Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. 		<ul style="list-style-type: none"> • 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 (°C) • Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature. 	<ul style="list-style-type: none"> • 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 • 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 and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating 	
--	---	--	--	---	--	--

					<ul style="list-style-type: none"> • Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic • Demonstrate that dissolving, mixing and changes of state are reversible changes • Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda. 	
--	--	--	--	--	---	--

Light

	(Link to seasonal changes – sun safety – Introduce shadows and the sun being a source of light)		<ul style="list-style-type: none"> • 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 their eyes • Recognise that shadows are formed when the light from a light source is blocked by a solid object • Find patterns in the way that the size of shadows change. 			<ul style="list-style-type: none"> • 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 objects that cast them.
--	---	--	---	--	--	--

Sound

	(Link to music – pitch/long and short sounds/dynamics and tempo)	(Link to music – pitch/long and short sounds/dynamics and tempo)		<ul style="list-style-type: none"> • 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 the 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 sounds get fainter as the distance from the sound source increases. 		
--	--	--	--	--	--	--

Rocks

	(Link to Year 1 – dinosaur topic, introduction of fossils)		<ul style="list-style-type: none"> • 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 rock • Recognise that soils are made from rocks and organic matter. 		
--	--	--	--	--	--

Earth and Space

	(Linked to Year 1 – Geography – Earth-oceans and United Kingdom)	(Link to Year 2 – Geography – 7 continents/north and south poles, 5 oceans)	(Link to Year 3 – Geography – Earth -Climate zones/ topographical features)		<ul style="list-style-type: none"> • 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 the idea of the Earth’s rotation to explain day and night and the apparent movement of the sun across the sky.
--	--	---	---	--	---

Evolution and Inheritance

		(Linked to Year 2 -Animals and Living things – offspring,, habitats)	(Linked to Year 3 -rocks – fossils)		(Linked to year 5 – Living things – reproduction)	<ul style="list-style-type: none"> • Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago • 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.
--	--	--	-------------------------------------	--	---	--

Scientific Enquiry Progression Skills

(5 Types of enquiry skills - Observation over time, Pattern seeking, Identifying, classifying and grouping, Comparative and fair testing, Research using secondary sources)

EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Planning						
Having their own ideas– thinking of ideas; finding ways to solve problems; finding new ways to do things Making predictions Planning making decisions about how to solve a problem and reach a goal	Ask simple questions when prompted Suggest ways of answering a question	Ask simple questions Recognise that questions can be answered in different ways	Ask relevant questions when prompted. Set up simple and practical enquiries, comparative and fair tests. Set up comparative tests.	Ask relevant questions Plan different types of scientific enquiries to answer questions Set up simple and practical enquiries, comparative and fair tests	With prompting, plan different types of scientific enquiries to answer questions With prompting, recognise and control variables where necessary	Plan different types of scientific enquiries to answer questions Recognise and control variables where necessary
Conducting Experiments						
Testing their ideas. Children use everyday language as they explore to talk about size, weight, capacity. They explore characteristics of everyday objects and shapes Children safely use and explore a variety of materials, tools and techniques, experimenting with colour, design, texture, form and function.	Make relevant observations Conduct simple tests, with support	Observe closely, using simple equipment Perform simple tests	Make systematic observations, using simple equipment Use standard units when taking measurements.	Make systematic and careful observations using a range of equipment, including thermometers and data loggers Take accurate measurements using standard units, where appropriate	Select, with prompting, and use appropriate equipment to take readings Take precise measurements using standard units	Take measurements using a range of scientific equipment Take measurements with increasing accuracy and precision Take repeat readings when appropriate
Recording Evidence						
Developing ideas of grouping , sequencing, cause and effect Children represent their own ideas, thoughts and feelings through design and technology, art, music, dance, role play and stories.	With prompting, suggest how findings could be recorded	Record and communicate their findings in a range of ways and begin to use simple scientific language	Record findings in various ways With prompting, suggest how findings may be tabulated With prompting, use various ways of recording, grouping and displaying evidence.	Record findings using simple scientific language, drawings and labelled diagrams Record findings using keys, bar charts, and tables Gather, record, classify and present data in a variety of ways to help to answer questions	Take and process repeat readings	Record data and results of increasing complexity using scientific diagrams and labels
Reporting Findings						
Making links and noticing patterns <u>Speaking</u> : Uses talk to organise, sequence and clarify thinking and ideas Gives meaning to marks they make as the draw, write and paint Children can make observations about plants and animals and explain why some things occur and talk about	Recognise findings	Identify and classify	With prompting, suggest conclusions from enquiries Suggest how findings could be reported.	Report on findings from enquiries, including oral and written explanations, of results and conclusions Report on findings from enquiries using displays or presentations	Record data and results Record data using labelled diagrams, keys, tables and charts Use line graphs to record data	Report and present findings from enquiries, including conclusions and causal relationships Report and presents findings from enquiries in oral and written forms such as displays and other presentation Report and present findings from enquiries, including explanations of, and degree of, trust in results

changes.						
Predictions and Conclusions						
<p>Checking how well their activities are going</p> <p>Changing strategy as needed</p> <p>Reviewing how well the approach worked</p> <p><u>Understanding:</u> Listens and responds to ideas expressed by others</p> <p>Children can discuss similarities and differences between living things, objects and materials.</p>	<p>Gather and record data</p> <p>Use observations to suggest answers to questions</p>	<p>Gather and record data to help answer questions</p> <p>Use their observations and ideas to suggest answers to questions</p>	<p>Suggest possible improvements or further questions to investigate</p>	<p>Identify differences, similarities or changes related to simple scientific ideas and processes</p> <p>Use straightforward scientific evidence to answer questions or to support their findings</p> <p>Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</p>	<p>Report and present findings from enquiries, including conclusions and, with prompting, suggest causal relationships</p> <p>With support, present findings from enquiries orally and in writing</p> <p>Suggest further comparative or fair tests</p>	<p>Identify scientific evidence that has been used to support or refute ideas or arguments</p> <p>Use test results to make predictions to set up further comparative and fair tests</p>