

Science Curriculum skills, vocabulary and progression map.

SCIENCE VOCABULARY MAP			
Topic	EYFS	YEAR ONE	YEAR TWO
Working Scientifically	<ul style="list-style-type: none"> • Science • Experiment • Fair • Find out • Explain • Reason • Why • Change 	<ul style="list-style-type: none"> • Question • Answer • Test • Compare • Observe • Group • Record 	<ul style="list-style-type: none"> • Data • Chart • Classify
Animals including humans and senses	<ul style="list-style-type: none"> • Alive • Animal • Food • Unwell • Smell • Touch • Hear • Taste • See • Senses 	fish, amphibians, reptiles birds, mammals, head, neck, arms, elbows, legs, knee, face, ears, eyes, hair, mouth, teeth, herbivore, omnivore, carnivore, wings, beak, feather	exercise, nutrition, health, survival, offspring, water, air, adult, baby, hygiene, elderly, toddler
Plant	<ul style="list-style-type: none"> • Plant • Seed • Grow • Flower • Leaf 	deciduous, evergreen, plant, leaf, leaves, flowers, blossom, petals, fruit, roots, bulb, seed, trunk, branches, stem, trees	Germination, bulb, water, light, temperature, growth,

Materials	<ul style="list-style-type: none"> • Touch • Shiny • Hard • Rough 	Property, hard/soft; stretchy/stiff; shiny/dull; rough/smooth; bendy/not bendy; waterproof/not waterproof; absorbent/not absorbent; opaque/transparent Wood, plastic, glass, paper, water, metal rock,	Purpose, stretchy, stiff, dull, absorbant, opaque, transparent, brick, fabrics, squashing, bending, twisting, stretching, elastic, foil
Living things and their habitats			Living, dead, habitat, energy, food chain, predator, prey, woodland, pond desert, micro habitat, food chain, survival, grow, reproduce
Seasonal Changes	<ul style="list-style-type: none"> • Weather • Seasons 	Sun, weather, season, spring, summer, autumn, winter, day length	

WORKING SCIENTIFICALLY YEAR ONE AND TWO		
OBJECTIVE	SKILLS	

	Year one	Year two	Knowledge and cross curricular links
SWS1 Asking simple questions and recognising that they can be answered in different ways	To say whether what happened was what they expected to happen.	To say whether what happened was what they expected to happen and if not why not.	To have the opportunity to ask one question at a time.
SWS2 Observing closely, using simple equipment	Use simple equipment and observe. Handle equipment sensibly. Compare different objects, living things and events.	To use and know what equipment is available to use and when to use different types of equipment. To name the different equipment available. Have experience of using equipment in context and knowledge of appropriate behaviours.	Safety vocab and procedures (Yr1/2) Link to carrying out a fair test (Yr1/ 2) Link to senses (for observation) (Yr1/2)
SWS3 Performing simple tests	To carry out a simple test. Explain and describe what they have done.	To methodically carry out a simple test. To explain, describe and	Opportunities to investigate built in throughout the year (Yr1/2)

	<p>Give reasons for their answers.</p> <p>Generate a hypothesis.</p> <p>To understand that results can be recorded (e.g by using a whole class table or graph)</p>	<p>record what they have done.</p> <p>Give reasons for their answers and explain.</p> <p>Generate a hypothesis and explain what will happen.</p>	<p>Opportunity to observe changes over time (Yr1/2)</p> <p>Opportunities to notice similarities and differences and patterns (Yr1/2)</p> <p>Opportunities to use secondary sources of information to find things out (Yr2)</p> <p>Link to maths, know how to measure and record data (Yr1/2)</p>
<p>SWS4</p> <p>Identifying and classifying</p>	<p>Organise things into groups.</p> <p>Find simple patterns or associations.</p> <p>Identify animals and plants by specific criteria.</p> <p>Thinking of a question to ask.</p> <p>Answering simple scientific questions.</p> <p>Explaining what they have found out.</p>	<p>Organise things into groups and classify.</p> <p>Find more than one way of grouping.</p> <p>Thinking of questions to ask and explaining their reasoning for it.</p> <p>Answering simple scientific questions and explaining their reasoning.</p>	<p>Knowledge on animals/plants/birds (Yr1)</p> <p>Understanding of using secondary sources on information (Yr2)</p> <p>Showing work using pictures, labels and captions (Yr1/2)</p> <p>Record data using standard units of measurement (Yr1/2)</p>

		Discussing similarities and differences and explaining their reasoning.	Record using a chart/ICT (Yr1/2) Discuss what they can by using their senses (Yr1)
SWS5 Using their observations and ideas to suggest answers to questions	Use simple equipment (with support) Ask simple questions. Observe changes over a period of time. To record data in groups or as a whole class.	Use simple equipment (independently) Makes systematic careful observations and record the results. Ask simple questions and know that they can be answered in different ways. Observe and record changes over a period of time.	
SWS6 Gathering and recording data to help in answering questions	Use pictures, captions and photographs to record data. Use observational ideas to suggest answers to questions. Gather and record data to help answer a simple question.	Record findings using simple scientific language, drawings, labels and diagrams.	Standard units of measurement. Different methods of recording (tables, graphs, charts)

WEATHER AND SEASONAL CHANGES		
YEAR ONE		
OBJECTIVE	SKILLS	Knowledge needed and cross curricular links
	Year one	
<p>SSA</p> <p>Observe changes across seasons.</p>	<p>Name the seasons.</p> <p>Describe the weather associated with each season.</p> <p>Talk about what they can see, hear, touch and smell.</p> <p>Use simple equipment to make observations.</p> <p>Observe features and changes in their environments.</p> <p>Talk about the weather changes.</p> <p>Talk about weather variations in different parts of the world.</p>	<p>Opportunity to observe seasonal changes throughout the year.</p> <p>Link to knowledge on senses.</p> <p>Link to working scientifically.</p> <p>Link to Geography (local and international environments)</p> <p>Link to knowledge on plants and common trees/birds.</p>
<p>SSB</p> <p>Observe and describe weather associated with seasons and how day length varies.</p>	<p>Observe and describe the length of a day.</p> <p>Describe the weather associated with each season.</p>	<p>Link to Maths and time/sequencing.</p>

ANIMALS INCLUDING HUMANS AND SENSES			
OBJECTIVE	Skills		Knowledge needed and cross curricular links.
	Year one	Year two	
<p>SAA Identify and describe variety of common animals including fish, amphibians, reptiles, birds and mammals.</p>	<p>Name a range of domestic animals. Name a range of wild animals. Identify and classify things they observe. Identify the differences between different animals. Classify according to different criteria.</p>		<p>Link to classify and identifying objects and animals. Be able to access different resources to learn about animals. Observe different animals.</p>
<p>SAB Describe and compare the structure of a variety of common animals.</p>	<p>To compare external features across groups and within groups. To know that external characteristics relate to functions and habitat. To explain and observe the</p>		<p>Understand the needs of different animals. Have the opportunity to reason and explain their answers.</p>

	common external features of animal families.		
<p>SAD</p> <p>Identify, name, draw and label the basic parts of the human body and say which part is associated with each sense.</p>	<p>Name parts of animal bodies.</p> <p>Compare two bodies of different animals.</p> <p>Name the parts of human bodies and link it to senses.</p> <p>Name the different parts of the body that can be seen.</p>		<p>Be able to talk about what they can see, hear, touch, smell and taste.</p> <p>Link to classifying and recording data.</p>
<p>SA1</p> <p>Notice that animals including humans have offspring which grow into animals.</p>		<p>Explain why animals have offspring which grow into adults.</p> <p>Describe the life-cycle of some living things (e.g. chick)</p> <p>Explain some animals reproduce in different ways.</p>	<p>Knowledge of reproduction (age appropriate).</p> <p>Knowledge of growth and change.</p> <p>Observational opportunities.</p> <p>Link to PSHE+C</p>
<p>SA2</p> <p>Find out about and describe the basic needs of animals including</p>		<p>Explain the basic needs of animals, including humans.</p>	<p>Know where there are sources of food and water for animals and humans.</p>

humans for survival (water, food and air).		Demonstrate what humans need to survive. Demonstrate the different types of environments necessary for survival for different species.	Link to habitats.
SA3 Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene.		Describe different types of exercise. Describe a healthy diet. Understand how to keep their whole body healthy (sleep, mind, relationships). Explain why food is healthy/unhealthy.	Know the different food groups. Link to PSHE+C Understand how to keep themselves clean and hygienic. Use secondary sources of information to research.

LIVING THINGS AND THEIR HABITATS		
OBJECTIVES	SKILLS	Knowledge and cross curricular links
	Year two	
SWST1 Explore and compare the differences between things	Explain the properties of something that is living/dead and never been alive.	Link to the life cycle. Link to knowing humans produce offspring.

<p>that are living, dead and things that have never been alive.</p>		
<p>SLT2 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>Match living things to their habitat. Describe how habitats provide for the basic needs of things living there. Use prompts to find out more information. Describe the basic needs of animals and plants, including humans for survival. To understand at a basic level that animals have adapted to their habitat (e.g. fish have gills).</p>	<p>Link to geography. Link to maths, organising groups. Link to knowledge on plants and animals. Opportunity to observe change over time.</p>
<p>SLT3 Identify and name a variety of plants and animals in their habitats, including micro habitats.</p>	<p>Match living things to their habitats. Describe how a habitat provides the basic needs of things living there. Group and organise different plants, animals and habitats. Observe and describe how seeds and bulbs grow and what they need to survive. Describe what animals, including humans, need to survive. Explain the difference between a habitat and a micro habitat.</p>	<p>Opportunity to observe changes over time. Know the range of needs for plants and animals. Access to secondary resources to discover and research.</p>

		Be able to use scientific equipment.
<p>SLT4</p> <p>Describe how animals obtain their food from plants and other animals using the idea of simple food chain and identify and name different sources of food.</p>	<p>Describe the life processes common to plants and animals, including humans.</p> <p>Describe what animals need to survive.</p> <p>Explain how plants and animals grow and reproduce.</p> <p>Explain why animals have offspring that grow into adults.</p> <p>Describe the life cycle of some living things.</p> <p>Explain the basic needs of animals for survival.</p> <p>Understand the dietary requirements for different animals.</p>	<p>Link to habitats.</p> <p>Link to PSHE+C.</p> <p>Link to Geography.</p> <p>Link to healthy food.</p> <p>Link to life-cycle.</p>

PLANTS			
OBJECTIVE	SKILLS		Knowledge and cross curricular links
	Year 1	Year 2	
<p>SPA</p> <p>Identify and name a variety of common wild and garden plants</p>	Naming a range of trees and plants		<p>Knowledge of plants and trees</p> <p>Experience of seeing/touching plants and trees.</p>
<p>SPB</p> <p>Identify and describe the basic structure of a variety of common</p>	Describing petals, stem, bulb, flower, seed, stem and root of plants.		<p>Link to identifying and classifying data and groups.</p> <p>Observing planting seeds and growing.</p>

flowering plants including trees.	Name and label different parts of a tree/plant. Describing tree/plants using their senses.		Observing change over time.
<p style="text-align: center;">SP1</p> Observing and describing how seeds and bulbs grow into mature plants.		Describe the life process of plants. Describe how plants are suited to their habitats. Observe and describe how seeds grow. Investigate and describe the impact of removing light, soil or water from growing or germinating plants.	Link to habitats. Link to life cycles. Link to observational data. Knowing how to use secondary sources of information. Using prompts to find out more information. Build on knowledge from year one (plants, trees and flowers).
<p style="text-align: center;">SP2</p> Find out and describe how plants need water, light, and a suitable temperature to grow and stay healthy.		Describe what plants need to survive. Explain that plants grow and reproduce in different ways. Look at how plants need water and light.	

MATERIALS			
OBJECTIVES	SKILLS		Knowledge and cross curricular links.
	Year one	Year two	
<p>SMA</p> <p>Distinguish between an object and the material from which it is made.</p>	<p>Distinguish between an object and material from which it is made.</p> <p>Describe materials using their senses.</p> <p>Sort a range of objects by the materials they are made.</p>		<p>Link to senses.</p> <p>Link to maths, sorting and classifying.</p>
<p>SMB</p> <p>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock.</p>	<p>Explain what materials objects are made from.</p> <p>Explain why a material is useful for a specific job.</p>		<p>Opportunity to explore different materials in their environment.</p> <p>Link to simple tests to understand why a material is useful.</p> <p>Be able to use simple scientific equipment.</p>
<p>SMC</p> <p>Describe the simple physical properties of a variety of everyday materials.</p>	<p>Name different everyday materials.</p> <p>Sort materials to a given criteria.</p> <p>Describe the similarities and</p>		<p>Link to classifying and grouping.</p>

	differences of materials.		
<p>SMD</p> <p>Compare and group together a variety of everyday materials on the basis of their simple physical properties.</p>	<p>Group and classify different materials.</p> <p>Explain the properties of different materials.</p> <p>Choose a suitable material(s) to use and explain their reason.</p>		<p>Link to geography and weather.</p> <p>Link to geography and climate.</p> <p>Link to seasons.</p>
<p>M1</p> <p>Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic ...for particular uses.</p>		<p>Describe the properties of everyday materials.</p> <p>Compare and sort different materials according to different criteria.</p> <p>Use their senses to answer questions.</p> <p>Use scientific vocabulary to explain their observations.</p> <p>Understand and relate the suitability of objects/materials for different purposes.</p>	<p>Link to maths, grouping and classifying.</p> <p>Link to geography (man-made/natural and weather).</p> <p>Link to performing a simple test.</p> <p>Opportunity to explore the properties of materials and how they change.</p>

		<p>Organise things into groups.</p> <p>Explain what has happened.</p> <p>Know if something is natural or man-made.</p>	
<p>M2</p> <p>Find out how shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p>		<p>Describe how the shape of a solid object changes.</p> <p>Know which objects will change/not change back.</p>	<p>Explore how solid objects change.</p> <p>Understand how heat/freezing changes mass.</p> <p>Understand how force can change a solid object.</p>