



Substantive knowledge  
Disciplinary knowledge

Year group	Autumn 1 Objectives	Autumn 2 Objectives	Spring 1 Objectives	Spring 2 Objectives	Summer 1 Objectives	Summer 2 Objectives
Nursery A (2023-24)	<p><b>All about me</b></p> <ul style="list-style-type: none"> <li>Talk about what they see, using a wide vocabulary.</li> </ul>	<p><b>Winter Wonderland</b></p> <ul style="list-style-type: none"> <li>Explore and respond to different natural phenomena in their setting and on trips.</li> <li>Use all their senses in hands-on exploration of natural materials.</li> <li>Talk about what they see, using a wide vocabulary.</li> <li>Explore and talk about different forces they can feel.</li> <li>Talk about the differences between materials and changes they notice.</li> </ul>	<p><b>Superheroes/People who help us</b></p> <ul style="list-style-type: none"> <li>Talk about what they see, using a wide vocabulary.</li> <li>Show interest in different occupations.</li> <li>Explore how things work.</li> </ul>	<p><b>Nature Detectives</b></p> <ul style="list-style-type: none"> <li>Explore materials with different properties.</li> <li>Explore natural materials, indoors and outside.</li> <li>Explore and respond to different natural phenomena in their setting and on trips.</li> <li>Use all their senses in hands-on exploration of natural materials.</li> <li>Explore collections of materials with similar and/or different properties.</li> <li>Talk about what they see, using a wide vocabulary.</li> <li>Plant seeds and care for growing plants.</li> <li>Understand the key features of the life cycle of a plant and an animal.</li> <li>Begin to understand the need to respect and care for the natural environment and all living things.</li> </ul>	<p><b>Let's go on Holiday</b></p> <ul style="list-style-type: none"> <li>Explore and respond to different natural phenomena in their setting and on trips.</li> <li>Use all their senses in hands-on exploration of natural materials.</li> <li>Talk about what they see, using a wide vocabulary.</li> <li>Explore how things work.</li> <li>Explore and talk about different forces they can feel.</li> </ul>	<p><b>Under the Sea</b></p> <ul style="list-style-type: none"> <li>Explore and respond to different natural phenomena in their setting and on trips.</li> <li>Use all their senses in hands-on exploration of natural materials.</li> <li>Talk about what they see, using a wide vocabulary.</li> <li>Explore how things work.</li> <li>Explore and talk about different forces they can feel.</li> </ul>
Nursery B (2022-23)	<p><b>Traditional tales and nursery rhymes</b></p> <ul style="list-style-type: none"> <li>Talk about the differences between materials and changes they notice.</li> <li>Explore how things work.</li> <li>Use all their senses in hands-on exploration of natural materials.</li> <li>Explore collections of materials with similar and/or different properties.</li> <li>Talk about what they see, using a wide vocabulary.</li> <li>Explore and respond to different natural phenomena in their setting and on trips.</li> </ul>	<p><b>Special times and special people</b></p> <ul style="list-style-type: none"> <li>Explore how things work.</li> <li>Show interest in different occupations.</li> <li>Use all their senses in hands-on exploration of natural materials.</li> <li>Explore collections of materials with similar and/or different properties.</li> <li>Talk about what they see, using a wide vocabulary.</li> <li>Explore and respond to different natural phenomena in their setting and on trips.</li> <li>Explore natural materials, indoors and outside.</li> </ul>	<p><b>Pirates</b></p> <ul style="list-style-type: none"> <li>Talk about the differences between materials and changes they notice.</li> <li>Explore and talk about different forces they can feel.</li> <li>Explore how things work.</li> <li>Use all their senses in hands-on exploration of natural materials.</li> <li>Explore collections of materials with similar and/or different properties.</li> <li>Talk about what they see, using a wide vocabulary.</li> <li>Explore and respond to different natural phenomena in their setting and on trips.</li> <li>Explore materials with different properties.</li> </ul>	<p><b>Journeys</b></p> <ul style="list-style-type: none"> <li>Explore and talk about different forces they can feel.</li> <li>Explore how things work.</li> <li>Show interest in different occupations.</li> <li>Use all their senses in hands-on exploration of natural materials.</li> <li>Explore collections of materials with similar and/or different properties.</li> <li>Talk about what they see, using a wide vocabulary.</li> </ul>	<p><b>On the farm</b></p> <ul style="list-style-type: none"> <li>Talk about the differences between materials and changes they notice.</li> <li>Explore how things work.</li> <li>Use all their senses in hands-on exploration of natural materials.</li> <li>Explore collections of materials with similar and/or different properties.</li> <li>Talk about what they see, using a wide vocabulary.</li> <li>Explore and respond to different natural phenomena in their setting and on trips.</li> <li>Explore natural materials, indoors and outside.</li> </ul>	<p><b>Mini beasts</b></p> <ul style="list-style-type: none"> <li>Talk about the differences between materials and changes they notice.</li> <li>Understand the key features of the life cycle of a plant and an animal.</li> <li>Begin to understand the need to respect and care for the natural environment and all living things.</li> <li>Explore how things work.</li> <li>Use all their senses in hands-on exploration of natural materials.</li> <li>Explore collections of materials with similar and/or different properties.</li> <li>Talk about what they see, using a wide vocabulary.</li> <li>Explore and respond to different natural phenomena in their setting and on trips.</li> <li>Explore natural materials, indoors and outside.</li> </ul>
Reception	<p><b>It's good to be me!</b></p>	<p><b>Celebrations</b></p>	<p><b>Dinosaurs</b></p> <ul style="list-style-type: none"> <li>Explore the natural world around them.</li> </ul>	<p><b>Up, up and away!</b></p> <ul style="list-style-type: none"> <li>Describe what they see, hear and feel whilst outside.</li> </ul>	<p><b>Growing</b></p> <ul style="list-style-type: none"> <li>Explore the natural world around them.</li> </ul>	<p><b>The great outdoors</b></p> <ul style="list-style-type: none"> <li>Explore the natural world around them.</li> </ul>

			<ul style="list-style-type: none"> <li>Describe what they see, hear and feel whilst outside.</li> <li>Explore the natural world around them, making observations and drawing pictures of animals and plants. (ELG)</li> </ul>	<ul style="list-style-type: none"> <li>Recognise some environments that are different to the one in which they live.</li> <li>Understand the effect of changing seasons on the natural world around them.</li> <li>Explore the natural world around them, making observations and drawing pictures of animals and plants. (ELG)</li> <li>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. (ELG)</li> <li>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. (ELG)</li> </ul>	<ul style="list-style-type: none"> <li>Describe what they see, hear and feel whilst outside.</li> <li>Recognise some environments that are different to the one in which they live.</li> <li>Understand the effect of changing seasons on the natural world around them.</li> <li>Explore the natural world around them, making observations and drawing pictures of animals and plants. (ELG)</li> <li>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. (ELG)</li> <li>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. (ELG)</li> </ul>	<ul style="list-style-type: none"> <li>Describe what they see, hear and feel whilst outside.</li> <li>Recognise some environments that are different to the one in which they live.</li> <li>Understand the effect of changing seasons on the natural world around them.</li> <li>Explore the natural world around them, making observations and drawing pictures of animals and plants. (ELG)</li> <li>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. (ELG)</li> <li>Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter. (ELG)</li> </ul>
1	<p><b>Plants and animals where we live</b> <i>Cross-curricular links to topic</i></p> <ul style="list-style-type: none"> <li>Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.</li> <li>Identify and describe the basic structure of a variety of common flowering plants, including trees.</li> <li>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.</li> <li>Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).</li> <li>Identify and name a variety of common animals that are carnivores, herbivores and omnivores.</li> </ul> <ul style="list-style-type: none"> <li>Observe closely, using simple equipment.</li> <li>Identify and classify.</li> <li>Use their observations and ideas to suggest answers to questions.</li> </ul>	<p><b>On Safari</b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.</li> <li>Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).</li> </ul> <ul style="list-style-type: none"> <li>Observe closely, using simple equipment.</li> <li>Identify and classify.</li> <li>Ask simple questions and recognise that they can be answered in different ways.</li> </ul>	<p><b>Who am I?</b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>Identify, name, draw and label the basic parts of the human body.</li> <li>Say which part of the body is associated with each sense.</li> </ul> <ul style="list-style-type: none"> <li>Observe closely, using simple equipment.</li> <li>Identify and classify.</li> <li>Gather and record data to help in answering questions.</li> </ul>	<p><b>Celebrations</b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>Say which part of the body is associated with each sense.</li> <li>Distinguish between an object and the material from which it is made.</li> <li>Describe the simple physical properties of a variety of everyday materials.</li> <li>Identify and describe the basic structure of a variety of common flowering plants, including trees.</li> </ul> <ul style="list-style-type: none"> <li>Observe things using simple equipment.</li> <li>Identify and classify.</li> <li>Use observations and ideas to suggest answers to questions.</li> <li>Perform simple tests.</li> </ul>	<p><b>Polar places</b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>Describe the simple physical properties of a variety of everyday materials.</li> <li>Compare and group together a variety of everyday materials on the basis of their simple physical properties.</li> <li>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.</li> <li>Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).</li> <li>Identify and name a variety of common animals that are carnivores, herbivores and omnivores.</li> </ul> <ul style="list-style-type: none"> <li>Ask simple questions and recognise that they can be answered in different ways.</li> <li>Perform simple tests.</li> <li>Identify and classify.</li> </ul>	<p><b>Holiday</b> <i>Cross-curricular links to topic</i></p> <ul style="list-style-type: none"> <li>Distinguish between an object and the material from which it is made.</li> <li>Compare and group together a variety of everyday materials on the basis of their simple physical properties.</li> <li>Describe the simple physical properties of a variety of everyday materials.</li> <li>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.</li> <li>Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).</li> <li>Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock.</li> </ul> <ul style="list-style-type: none"> <li>Identify and classify.</li> </ul>

	<ul style="list-style-type: none"> <li>○ Ask simple questions and recognise that they can be answered in different ways.</li> <li>○ Gather and record data to help in answering questions.</li> </ul>				<ul style="list-style-type: none"> <li>○ Use their observations and ideas to suggest answers to questions.</li> </ul>	<ul style="list-style-type: none"> <li>○ Observe closely, using simple equipment. Perform simple tests.</li> <li>○ Use observations and ideas to suggest answers to questions.</li> <li>○ Gather and record data to help in answering questions.</li> </ul>
<p><b>Seasons – no SOS unit</b></p> <p><i>Cross-curricular links to topics – weather in Leeds (Aut.1) and at the seaside (Sum.2).</i></p>						
	<ul style="list-style-type: none"> <li>● Observe changes across the four seasons.</li> <li>● Observe and describe weather associated with the seasons and how day length varies.</li> </ul>					
<b>2</b>	<p><b><u>Materials monster</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>● Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</li> <li>● Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</li> <li>○ Identify and classify.</li> <li>○ Observe closely, using simple equipment.</li> <li>○ Perform a simple test.</li> </ul>	<p><b><u>Squash, bend, twist and stretch</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>● Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</li> <li>○ Identify and classify.</li> <li>○ Perform simple tests.</li> <li>○ Gather and record data to help answer questions.</li> </ul>	<p><b><u>Healthy me</u></b> <i>Cross-curricular links to topic</i></p> <ul style="list-style-type: none"> <li>● 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.</li> <li>● Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</li> <li>○ Gather and record data to help answer questions.</li> <li>○ Perform simple tests.</li> <li>○ Observe closely, using simple equipment.</li> <li>○ Use their observations and ideas to suggest answers to questions.</li> </ul>	<p><b><u>Our local environment</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>● 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.</li> <li>● Identify and name a variety of plants and animals in their habitats, including micro-habitats.</li> <li>● Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name the different sources of food.</li> <li>○ Gather and record data to help in answering questions.</li> </ul>	<p><b><u>Young gardeners</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>● Identify and name a variety of plants and animals in their habitats, including microhabitats.</li> <li>● Observe and describe how seeds and bulbs grow into mature plants.</li> <li>● Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy.</li> <li>○ Identify and classify using simple equipment.</li> <li>○ Ask simple questions and recognise that they can be answered in different ways.</li> <li>○ Observe closely, using simple equipment.</li> <li>○ Perform simple tests and use observations and ideas to suggest answers to questions.</li> <li>○ Gather and record data to help answer questions.</li> </ul>	<p><b><u>Little masterchefs</u></b> <i>Cross-curricular links to DT</i></p> <ul style="list-style-type: none"> <li>● Find out about, and describe the basic needs of animals, including humans, for survival (water, food and air).</li> <li>● Describe the importance for humans of exercise, eating the right amounts of different types of food and hygiene.</li> <li>● Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</li> <li>○ Identify and classify.</li> <li>○ Observe closely, using simple equipment.</li> <li>○ Perform simple tests, using their observations and ideas to suggest answers to questions.</li> <li>○ Gather and record data to help answer questions.</li> </ul>
<b>3</b>	<p><b><u>Light and shadows</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>● Recognise that they need light in order to see things and that dark is the absence of light.</li> <li>● Notice that light is reflected from surfaces.</li> <li>● Find patterns in the way that the sizes of shadows change.</li> <li>○ Set up simple practical enquiries, comparative and fair tests.</li> <li>○ Report on findings from enquiries, including oral and</li> </ul>	<p><b><u>Forces and magnets</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>● Compare how things move on different surfaces.</li> <li>● 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.</li> <li>● Notice that some forces need contact between two objects, but magnetic forces can act at a distance.</li> <li>● Describe magnets as having two poles.</li> </ul>	<p><b><u>Food and our bodies</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>● Identify that animals, including humans, need the right types and amounts of nutrition, and that they cannot make their own food, they get nutrition from what they eat.</li> <li>● Identify that humans and some other animals have skeletons and muscles for support, protection and movement.</li> <li>○ Gather, record, classify and present data in a variety of</li> </ul>	<p><b><u>How does your garden grow?</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>● Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.</li> <li>● Explain the requirements of plants for life and growth (air, light, water, nutrients) and how they vary from plant to plant.</li> <li>● Explore the part that flowers play in the life cycle of flowering plants, including</li> </ul>	<p><b><u>Rocks, soils and fossils</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>● Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.</li> <li>● Recognise that soils are made from rock and organic matter.</li> <li>● Describe in simple terms how fossils are formed when things that have lived are trapped within rock.</li> <li>○ Gather, record, classify and present data in a variety of</li> </ul>	<p><b><u>SIA: The nappy challenge</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>○ Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</li> <li>○ Gather, record, classify and present data in a variety of ways to help answer questions.</li> <li>○ Ask relevant questions and use different types of</li> </ul>

	<p>written explanations, displays or presentations of results and conclusions.</p> <ul style="list-style-type: none"> <li>○ Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment including thermometers and data loggers.</li> <li>○ Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</li> <li>○ Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</li> </ul>	<ul style="list-style-type: none"> <li>● Predict whether two magnets will attract or repel each other, depending on which poles are facing.</li> <li>● Observe how magnets attract or repel each other and attract some materials and not others.</li> <li>○ Set up simple practical enquiries, comparative and fair tests.</li> <li>○ Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment including thermometers and data loggers.</li> <li>○ Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.</li> <li>○ Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</li> <li>○ Use straightforward scientific evidence to answer questions or to support their findings.</li> </ul>	<p>ways to help in answering questions.</p> <ul style="list-style-type: none"> <li>○ Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.</li> <li>○ Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</li> </ul>	<p>pollination, seed formation and seed dispersal.</p> <ul style="list-style-type: none"> <li>○ Investigate the way in which water is transported within plants.</li> <li>○ Set up simple practical enquiries, comparative and fair tests.</li> <li>○ Ask relevant questions and using different types of scientific enquiries to answer them.</li> <li>○ Make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</li> <li>○ Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.</li> <li>○ Use results to draw simple conclusions.</li> <li>○ Make predictions for new values, suggest improvements and raise further questions.</li> <li>○ Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</li> <li>○ Gather, record, classify and present data in a variety of ways to help answer questions.</li> </ul>	<p>ways to help answer questions.</p> <ul style="list-style-type: none"> <li>○ Set up simple practical enquiries, comparative and fair tests.</li> <li>○ Ask relevant questions and use different types of scientific enquiries to answer them.</li> <li>○ Make systematic and careful observations and, where appropriate, take accurate measurements using standard units using a range of equipment.</li> <li>○ Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</li> </ul>	<p>scientific enquiries to answer them.</p> <ul style="list-style-type: none"> <li>○ Set up simple practical enquiries, comparative and fair tests.</li> <li>○ Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</li> <li>○ Use straightforward scientific evidence to answer questions or to support their findings.</li> </ul>
4	<p><b><u>What's that sound?</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>● Identify how sounds are made, associating some of them with something vibrating.</li> <li>● Find patterns between the volume of a sound and the strength of the vibrations that produced it.</li> <li>● Find patterns between the pitch of a sound and features of the object that produced it.</li> <li>● Recognise that sounds get fainter as the distance from the sound source increases.</li> <li>● Recognise that vibrations from sounds travel through a medium to the ear.</li> </ul>	<p><b><u>Looking at states</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>● Compare and group materials together, according to whether they are solids, liquids or gases.</li> <li>● 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).</li> <li>● Identify differences, similarities or changes related to simple scientific ideas and processes.</li> <li>● Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</li> </ul>	<p><b><u>Teeth and eating</u></b> <i>Cross-curricular links to DT</i></p> <ul style="list-style-type: none"> <li>● Identify the different types of teeth in humans and their simple functions.</li> <li>● Describe the simple functions of the basic parts of the digestive system in humans.</li> <li>● Construct and interpret a variety of food chains, identifying producers, predators and prey.</li> <li>● Construct and interpret a variety of food chains, identifying producers, predators and prey.</li> <li>○ Ask relevant questions and use different types of scientific enquiries to answer them.</li> </ul>	<p><b><u>Living things</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>● Recognise that living things can be grouped in a variety of ways.</li> <li>● Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</li> <li>● Recognise that environments can change and that this can sometimes pose dangers to living things.</li> <li>○ Ask relevant questions and using different types of scientific enquiries to answer them.</li> <li>○ Use straightforward scientific evidence to answer</li> </ul>	<p><b><u>Power it up</u></b> <i>Cross-curricular links to DT</i></p> <ul style="list-style-type: none"> <li>● Identify common appliances that run on electricity.</li> <li>● Pupils should be taught about precautions for working safely with electricity.</li> <li>● Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.</li> <li>● 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.</li> <li>● Recognise that a switch opens and closes a circuit and associate this with</li> </ul>	<p><b><u>The big build</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>○ Set up simple practical enquiries, comparative and fair tests.</li> <li>○ Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</li> <li>○ Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.</li> <li>○ Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</li> </ul>

	<ul style="list-style-type: none"> <li>○ Set up simple practical enquiries, comparative and fair tests.</li> <li>○ Use straightforward scientific evidence to answer questions or to support their findings.</li> <li>○ Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</li> <li>○ Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</li> <li>○ Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.</li> <li>○ Ask relevant questions and use different types of scientific enquiries to answer them.</li> <li>○ Identify differences, similarities or changes related to simple scientific ideas and processes.</li> </ul>	<ul style="list-style-type: none"> <li>○ Ask relevant questions and use different types of scientific enquiries to answer them.</li> <li>○ Set up simple practical enquiries, comparative and fair tests.</li> <li>○ Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.</li> <li>○ Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusion.</li> <li>○ Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.</li> <li>○ Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.</li> </ul>	<ul style="list-style-type: none"> <li>○ Set up simple practical enquiries, comparative and fair tests.</li> <li>○ Use straightforward scientific evidence to answer questions or to support their findings.</li> <li>○ Gather, record, classify and present data in a variety of ways to help answer questions.</li> </ul>	<p>questions or to support their findings.</p> <ul style="list-style-type: none"> <li>○ Gather, record, classify and present data in a variety of ways to help in answering questions.</li> <li>○ Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</li> </ul>	<p>whether or not a lamp lights in a simple series circuit.</p> <ul style="list-style-type: none"> <li>● Recognise some common conductors and insulators, and associate metals with being good conductors.</li> <li>○ Use straightforward scientific evidence to answer questions or to support their findings.</li> </ul>	<ul style="list-style-type: none"> <li>○ Use straightforward scientific evidence to answer questions or to support their findings.</li> <li>○ Ask relevant questions and use different types of scientific enquiries to answer them.</li> <li>○ Gather, recording, classifying and presenting data in a variety of ways to help answer questions.</li> <li>○ Recognise that living things can be grouped in a variety of ways.</li> <li>○ Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</li> <li>○ Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.</li> </ul>
5	<p><b><u>Material world</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>● 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.</li> <li>● Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.</li> <li>● Know that some materials will dissolve in liquid to form a solution and describe how to recover a substance from a solution.</li> <li>● Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.</li> </ul>	<p><b><u>Out of this world</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>● Describe the movement of the Earth and other planets relative to the Sun in the Solar System.</li> <li>● Describe the Sun, Earth and Moon as approximately spherical bodies.</li> <li>● Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky.</li> <li>● Describe the movement of the Moon relative to the Earth.</li> <li>○ Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.</li> <li>○ Plan different types of scientific enquiries to answer</li> </ul>	<p><b><u>Let's get moving</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>● Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.</li> <li>● 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.</li> <li>● Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect.</li> <li>○ Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</li> </ul>	<p><b><u>Amazing changes</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>● 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.</li> <li>○ Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</li> <li>○ Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.</li> <li>○ Take measurements, using a range of scientific equipment, with increasing accuracy and precision,</li> </ul>	<p><b><u>Circle of life</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>● Describe the life process of reproduction in some plants and animals.</li> <li>● Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.</li> <li>○ Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.</li> <li>○ Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</li> <li>○ Take measurements, using a range of scientific equipment, with increasing accuracy and precision,</li> </ul>	<p><b><u>Growing up and growing old</u></b> <i>Cross-curricular links to RSE</i></p> <ul style="list-style-type: none"> <li>● Describe the changes as humans develop to old age.</li> <li>○ Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</li> <li>○ Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.</li> <li>○ Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</li> <li>○ Identify scientific evidence that has been used to support or refute ideas or arguments.</li> </ul>

	<ul style="list-style-type: none"> <li>○ Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</li> <li>○ Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</li> <li>○ Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</li> <li>○ Use test results to make predictions to set up further comparative and fair tests.</li> <li>○ Use test results to make predictions to set up further comparative and fair tests.</li> <li>○ Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.</li> </ul>	<p>questions, including recognising and controlling variables where necessary.</p> <ul style="list-style-type: none"> <li>○ Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</li> <li>○ Identify scientific evidence that has been used to support or refute ideas or arguments.</li> <li>○ Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</li> <li>○ Use test results to make predictions to set up further comparative and fair tests.</li> </ul>	<ul style="list-style-type: none"> <li>○ Use test results to make predictions to set up further comparative and fair tests.</li> <li>○ Identify scientific evidence that has been used to support or refute ideas or arguments.</li> <li>○ Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms. Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</li> <li>○ Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</li> <li>○ Use test results to make predictions to set up further comparative and fair tests.</li> </ul>	<p>taking repeat readings when appropriate.</p> <ul style="list-style-type: none"> <li>○ Use test results to make predictions to set up further comparative and fair tests.</li> <li>○ Identify scientific evidence that has been used to support or refute ideas or arguments.</li> </ul>	<p>taking repeat readings when appropriate.</p> <ul style="list-style-type: none"> <li>○ Use test results to make predictions to set up further comparative and fair tests.</li> <li>○ Identify scientific evidence that has been used to support or refute ideas or arguments.</li> <li>○ Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Identify scientific evidence that has been used to support or refute ideas or arguments.</li> </ul>	
6	<p><b><u>Classifying living things</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>● Give reasons for classifying plants and animals based on specific characteristics.</li> <li>● Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals.</li> <li>○ Identify scientific evidence that has been used to support or refute ideas or arguments.</li> <li>○ Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</li> <li>○ Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral</li> </ul>	<p><b><u>Evolution and inheritance</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>● Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.</li> <li>● Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.</li> <li>● Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</li> <li>○ Identify scientific evidence that has been used to support or refute ideas or arguments.</li> <li>○ Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</li> </ul>	<p><b><u>Light</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>● Recognise that light appears to travel in straight lines.</li> <li>● Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</li> <li>● 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.</li> <li>● 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.</li> <li>○ Take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</li> <li>○ Record data and results of increasing complexity using scientific diagrams and</li> </ul>	<p><b><u>Electricity</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>● Use recognised symbols when representing a simple circuit in a diagram.</li> <li>● Use recognised symbols when representing a simple circuit in a diagram.</li> <li>● Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.</li> <li>● 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.</li> <li>○ Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as</li> </ul>	<p><b><u>The Titanic</u></b> <i>Stand alone</i></p> <ul style="list-style-type: none"> <li>○ Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</li> <li>○ Use test results to make predictions to set up further comparative and fair tests.</li> <li>○ Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.</li> <li>○ Take measurements, use a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</li> <li>○ Identify scientific evidence that has been used to support or refute ideas or arguments.</li> </ul>	<p><b><u>Healthy bodies</u></b> <i>Cross-curricular links to topic</i></p> <ul style="list-style-type: none"> <li>● Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.</li> <li>● Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.</li> <li>○ Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</li> <li>○ Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.</li> <li>○ Take measurements, using a range of scientific</li> </ul>

	<p>and written forms such as displays and other presentations.</p>		<p>labels, classification keys, tables, scatter graphs, bar and line graphs.</p> <ul style="list-style-type: none"> <li>○ Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.</li> </ul>	<p>displays and other presentations.</p> <ul style="list-style-type: none"> <li>○ Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.</li> <li>○ Report and present findings from enquiries, including conclusions, causal relationships and explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.</li> <li>○ Ask simple questions and recognise that they can be answered in different ways.</li> </ul>		<p>equipment, with increasing accuracy and precision, taking repeat readings when appropriate.</p> <ul style="list-style-type: none"> <li>○ Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.</li> <li>○ Use test results to make predictions to set up further comparative and fair tests.</li> <li>○ Identify scientific evidence that has been used to support or refute ideas or arguments.</li> </ul>
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