





	Autumn	Spring	Summer
Nursery	Wonderful Me	Winter	Minibeast
	Understanding the World	Understanding the World	Understanding the World
	 Show interest in different occupations. Use all their senses in hands-on exploration of natural materials. Talk about what they see, using a 	 Use all their senses in hands-on exploration of natural materials. Explore collections of materials with similar and/or different properties. Talk about what they see, using a 	 Use all their senses in hands-on exploration of natural materials. Explore collections of materials with similar and/or different properties. Talk about what they see, using a
	wide vocabulary.	 Talk about what they see, using a wide vocabulary. Show interest in different occupations. 	 Talk about what they see, using a wide vocabulary. Show interest in different occupations.
	 Personal, social and emotional development. Make healthy choices about food, drink, activity and toothbrushing. 	Talk about the differences between materials and changes they notice. Communication and Language	 Understand the key features of the life cycle of a plant and an animal. Begin to understand the need to respect and care for the natural environment
	 Communication and Language Use a wider range of vocabulary Understand 'why' questions. 	 Use a wider range of vocabulary. Understand 'why' questions. 	and all living things. Communication and Language Use a wider range of vocabulary.
	 Space Understanding the World Show interest in different occupations. Explore how things work. Explore and talk about different forces they can feel. Explore and talk about different forces they can feel. Talk about the differences between 	 Farm Animals Understanding the World Show interest in different occupations. Explore how things work. Plant seeds and care for growing plants. Understand the key features of the life cycle of a plant and an animal. Begin to understand the need to respect and care for the natural environment and 	 Understand 'why' questions. Seaside Understanding the World
	materials and changes they notice. Communication and Language Use a wider range of vocabulary.	 all living things. Communication and Language Use a wider range of vocabulary. Understand 'why' questions. 	 Show interest in different occupations. Begin to understand the need to respect and care for the natural environment and all living things.







	Understand 'why' questions.		 Explore and talk about different forces they can feel. Talk about the differences between materials and changes they notice. Communication and Language Use a wider range of vocabulary. Understand 'why' questions.
	I = = = = = = = = = = = = = = = = = = =	ute and experience things, and 'have a go'. keep on trying if they encounter difficulties and have and develop their own ideas, make links b	• •
Reception	 All about me Understanding the World Explore the natural world around them. Recognise some environments that are different from the one in which they live. Personal, Social and Emotional Development Know and talk about the different factors that support their overall health and wellbeing – regular physical exercise. Communication & Language Learn new vocabulary. 	 Polar Explorers Understanding the World Explore the natural world around them. Describe what they see, hear and feel whilst outside. Recognise some environments that are different from the one in which they live. Personal, Social and Emotional Development Know and talk about the different factors that support their overall health and wellbeing – 	 Growing Things Understanding the World Explore the natural world around them. Describe what they see, hear and feel whilst outside. Personal, Social and Emotional Development Know and talk about the different factors that support their overall health and wellbeing – healthy eating. Know and talk about the different factors that support their overall health and wellbeing – being a safe pedestrian.
	Ask questions to find out more and to check they understand what has been said to them.	Communication & LanguageLearn new vocabulary.	Communication & Language • Learn new vocabulary.



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- Articulate their ideas and thoughts in well-formed sentences.
- Describe events in some detail.
- Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen.
- Engage in nonfiction books.

Festivals

Understanding the World

- Explore the natural world around them.
- Recognise some environments that are different from the one in which they live.

Personal, Social and Emotional Development

- Know and talk about the different factors that support their overall health and wellbeing – having a good sleep routine.
- Know and talk about the different factors that support their overall health and wellbeing – sensible amounts of screen time

Communication & Language

- Learn new vocabulary.
- Ask questions to find out more and to check they understand what has been said to them.

- Ask questions to find out more and to check they understand what has been said to them.
- Articulate their ideas and thoughts in wellformed sentences.
- Describe events in some detail.
- Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen.
- Engage in nonfiction books.

New Life

Understanding the World

- Explore the natural world around them.
- Describe what they see, hear and feel whilst outside.

Personal, Social and Emotional Development

 Know and talk about the different factors that support their overall health and wellbeing – toothbrushing.

Communication & Language

- Learn new vocabulary.
- Ask questions to find out more and to check they understand what has been said to them.
- Articulate their ideas and thoughts in well-formed sentences.

- Ask questions to find out more and to check they understand what has been said to them.
- Articulate their ideas and thoughts in well-formed sentences.
- Describe events in some detail.
- Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen.
- Engage in nonfiction books.

Under the Sea

Understanding the World

- Explore the natural world around them.
- Describe what they see, hear and feel whilst outside.
- Recognise some environments that are different from the one in which they live.

Communication & Language

- Learn new vocabulary.
- Ask questions to find out more and to check they understand what has been said to them.
- Articulate their ideas and thoughts in well-formed sentences.
- Describe events in some detail.
- Use talk to help work out problems and organise thinking and activities, and to





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	 Articulate their ideas and thoughts in well-formed sentences. Describe events in some detail. Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen. Engage in nonfiction books. 	 Describe events in some detail. Use talk to help work out problems and organise thinking and activities, and to explain how things work and why they might happen. Engage in nonfiction books. 	explain how things work and why they might happen. • Engage in nonfiction books.
		te and experience things, and 'have a go'. keep on trying if they encounter difficulties and have and develop their own ideas, make links b	
Year 1	 Animals including humans To identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. To identify and name a variety of common animals that are carnivores, herbivores and omnivores. To describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets). To identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense 	everyday materials on the basis of their	To identify and describe the basic structure of a variety of common flowering plants, including trees.







Seasonal	l Changes

(Taught across the year)

- To observe changes across the four seasons.
- To observe and describe weather associated with the seasons and how day length varies.

Light and Dark

(Non-statutory)

- To identify and name the sources of light.
- To identify and name sources of light that we can see.
- To explain what darkness is.
- To compare sources of light (brightest, dullest, darker, lighter).
- To describe how light is different during the night and day.

Forces

(Non-statutory)

- To observe and describe different ways of moving.
- To describe and show how to make something move, e.g. push and pull.
- To describe and explain changes in movement as a result of an action.

Working Scientifically

- Asking simple questions and recognising that they can be answered in different ways.
- Observing closely, using simple equipment.
- Performing simple tests.
- Identifying and classifying.
- Using their observations and ideas to suggest answers to questions.
- Gathering and recording data to help in answering questions.

Year 2

Animals, including humans

- To notice that animals, including humans, have offspring which grow into adults.
- To find out about and describe the basic needs of animals, including humans, for survival (water, food and air).
- To describe the importance for humans of exercise, eating the right amounts of different types of foods, and hygiene.

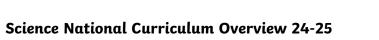
Uses of everyday materials

- To identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses
- To find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.

Living things and their habitats

- To explore and compare the differences between things that are living, dead, and things that have never been alive.
- To 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.







	 Light and Electricity (Non-statutory) To demonstrate their understanding that many everyday appliances require electricity and to group appliances into categories. To understand that electricity can be dangerous and appliances must be used safely. To make a circuit using batteries, bulbs, wires and to make the bulb/buzzer work. 	 Plants To observe and describe how seeds and bulbs grow into mature plants. To find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. 	 To identify and name a variety of plants and animals in their habitats, including microhabitats. To 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 Outdoor science (Non-statutory) To explore working scientifically objectives through a range of practical investigations. Children to create their own questions about learning across the year (animals, materials, plants, living things). Explore different ways of answering these questions.
	 Working Scientifically Asking simple questions and recognising that they can be answered in different ways. Observing closely, using simple equipment. Performing simple tests. Identifying and classifying. Using their observations and ideas to suggest answers to questions. Gathering and recording data to help in answering questions. 		
Year 3	Animals, including humans To identify that animals, including humans, need the right types and amount of nutrition, and that they cannot	Forces and Magnets To compare how things move on different surfaces.	Plants To identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers.







- make their own food; they get nutrition from what they eat.
- To identify that humans and some other animals have skeletons and muscles for support, protection and movement.
- To notice that some forces need contact between two object but magnetic forces can act at a distance
- To observe how magnets attract or repel each other and attract some materials and not others.
- To 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.
- To describe magnets as having two poles.
- To predict whether two magnets will attract or repel each depending on which poles are facing.

- To 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.
- To investigate the way in which water is transported within plants.
- To explore the part that flowers play in the life cycle of flowering plants, pollination, seed formation and seed dispersal.

Rocks

- To compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.
- To describe in simple terms how fossils are formed when things that have lived are trapped within rock.
- To recognise that soils are made from rocks and organic matter.

Light

- To recognise that they need light in order to (Non-statutory) see things and that dark is the absence of light.
- To notice that light is reflected from surfaces.
- To recognise that light from the sun can be dangerous and that there are ways to protect their eyes.
- To recognise that shadows are formed when the light from a light source is blocked by an opaque object.
- To find patterns in the way that the size of shadows change.

Food Science

- Recap knowledge of food groups and what makes a balanced diet.
- Explore what taste buds are and how they work.
- Explore plants that can and can't be eaten.
- Explore the different between fatty foods and fat free foods.
- Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions.
- Setting up simple practical enquiries, comparative and fair tests







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			 Identifying differences, similarities or changes related to simple scientific ideas and processes.
	Working Scientifically		
	 Asking relevant questions and using differ Setting up simple practical enquiries, com Making systematic and careful observation of equipment, including thermometers and Gathering, recording, classifying and pres Recording findings using simple scientific Reporting on findings from enquiries, including results to draw simple conclusions, Identifying differences, similarities or char 	ns and, where appropriate, taking accurate meası	ring questions. charts, and tables. cresentations of results and conclusions. cresents and raise further questions.
Year 4	 Animals, including humans To describe the simple functions of the basic parts of the digestive system in humans. To identify the different types of teeth in humans and their simple functions. To construct and interpret a variety of food chains, identifying producers, predators and prey. 	 Electricity To identify common appliances that run on electricity. To construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers. To 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. To recognise that a switch opens and closes a circuit and associate this with whether or 	 grouped in a variety of ways. To explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. To recognise that environments can change and that this can sometimes pose dangers to living things.







insulators, and associate metals with being
good conductors.

States of Matter

- To compare and group materials together, according to whether they are solids, liquids or gases.
- To 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).
- To identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.

Sound

 To identify how sounds are made, associating some of them with something vibrating.

To recognise some common conductors and

- To recognise that vibrations from sounds travel through a medium to the ear.
- To find patterns between the pitch of a sound and features of the object that produced it.
- To find patterns between the volume of a sound and the strength of the vibrations that produced it.
- To recognise that sounds get fainter as the distance from the sound source increases.

Science projects

(Non-Statutory)

- Children to apply their knowledge and understanding of science to a range of citizen science projects organised by academic institutions.
- Enhance the children's science capital while contributing towards real life scientific research. Examples include:
 - -The Great British Bee Count
 - -Wildwatch Kenya
 - -Big Schools Bird Watch

Working Scientifically

- Asking relevant questions and using different types of scientific enquiries to answer them.
- Setting up simple practical enquiries, comparative and fair tests.
- Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.
- Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions.
- Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.
- Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.
- Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.
- Identifying differences, similarities or changes related to simple scientific ideas and processes.
- Using straightforward scientific evidence to answer questions or to support their findings.







Year 5 Properties and changes of materials

- To compare and group together everyday materials on the basis of their properties including their hardness, solubility, transparency, conductivity
- To compare and group together everyday materials on the basis of their properties, (electrical and thermal), and response to magnets.
- To know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution.
- To use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.
- To give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.
- To demonstrate that dissolving, mixing and changes of state are reversible changes.
- To 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.

Earth and Space

- To describe the movement of the Earth, and other planets, relative to the Sun in the solar system.
- To describe the movement of the Moon relative to the Earth.
- To describe the Sun, Earth and Moon as approximately spherical bodies.
- To use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky.

Living things and their habitats

- To describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.
- To describe the life process of reproduction in some plants and animals.

Forces

- To explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.
- To identify the effects of air resistance, water resistance and friction, that act between moving surfaces.

Science projects

(Non-Statutory)

- Children to apply their knowledge and understanding of science to a range of citizen science projects organised by academic institutions.
- Enhance the children's science capital while contributing towards real life scientific research. Examples include: -STEM
 - -CREST Award





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	Animals, including humans To describe the changes as humans, develop to old age.		
	 Working Scientifically Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. Using test results to make predictions to set up further comparative and fair tests. Reporting and presenting 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. Identifying scientific evidence that has been used to support or refute ideas or arguments. 		
Year 6	To 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. To give reasons for classifying plants and animals based on specific characteristics. Animals, including humans To identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.	 To recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. To recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents. To identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution. 	 Light To recognise that light appears to travel in straight lines. To 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. To 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. To use the idea that light travels in straight lines to explain why shadows







- To recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function.
- To describe the ways in which nutrients and water are transported within animals, including humans.

Electricity

- To associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit.
- To 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.
- To use recognised symbols when representing a simple circuit in a diagram.

have the same shape as the objects that cast them.

Think like a scientist

(Non-statutory)

- Reaffirming of working scientifically objectives ahead of transition to high school.
- With a Focus on sound, children to planning and carrying out their own enquires to answer questions.
- Use a range of equipment and record data and results using appropriate diagrams and charts.

Working Scientifically

- Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary.
- Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate.
- Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs.
- Using test results to make predictions to set up further comparative and fair tests.
- Reporting and presenting 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.
- Identifying scientific evidence that has been used to support or refute ideas or arguments.