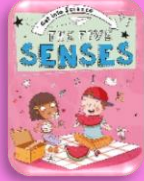
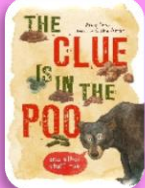




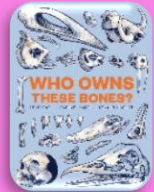
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<u>Science</u>	<u>Autumn 1</u>	<u>Autumn 2</u>	<u>Spring 1</u>	<u>Spring 2</u>	<u>Summer 1</u>	<u>Summer 2</u>
Nursery	<u>End points</u> - To explore the natural environment through sensory experiences. - To explore how things work and explain why things happen. - Understand the life cycle of a plant and animal. - Respect and care for the natural environment and living things.					
	<u>Suggested Themes:</u> - Autumn - New beginnings	<u>Suggested Themes:</u> - Autumn - Festivals & Celebrations	<u>Suggested Themes:</u> - Winter - Animals past & present	<u>Suggested Themes:</u> - Spring - New Life - Growth	<u>Suggested Themes:</u> - Summer - Heroes - Mini beasts - Out of this world	<u>Suggested Themes:</u> - Summer - Journeys around the world - Under the sea
Reception	<u>End points and Early Learning Goals</u> - To explore the natural world and use their senses to make observations. - To explore different environments and understand the effects of changing seasons. - Understand similarities and differences in everyday and scientifically.					
	<u>ELG: The Natural World</u> - Explore the natural world around them, making observations and drawing pictures of animals and plants; - 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; - Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.					
	<u>Suggested Themes:</u> - Autumn - New beginnings	<u>Suggested Themes:</u> - Autumn - Festivals & Celebrations	<u>Suggested Themes:</u> - Winter - Animals past & present	<u>Suggested Themes:</u> - Spring - New Life - Growth	<u>Suggested Themes:</u> - Summer - Heroes - Mini beasts - Out of this world	<u>Suggested Themes:</u> - Summer - Journeys around the world - Under the sea
	<u>Key Stage 1</u>					
	<u>Unit 1</u>	<u>Unit 2</u>	<u>Unit 3</u>	<u>Unit 4</u>	<u>Unit 5</u>	
Year 1	<u>Seasonal changes: 1 term</u> - I understand how weather changes across the seasons. - I understand the impact the seasons have on trees and how they change. - I can measure rainfall.	<u>Materials:</u> - I can identify and name different materials - I can tell the difference between an object and the material it is made from - I can identify which materials have certain properties (absorbent, waterproof) - I can test different materials and watch closely what	<u>Plants:</u> - I can identify and name a variety of common wild plants by going on a wild plant hunt. - I can identify and name a variety of common garden plants. - I can identify and name a variety of common wild and garden plants.	<u>Animals including humans: common animals</u> - I can identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. - I can identify and name a variety of common animals that are carnivores, herbivores and omnivores. - I can describe and compare	<u>Animals including humans: Body parts and senses:</u> - I can identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. - I can understand that the eye is an organ that we use to see. - I can understand that	

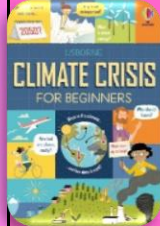
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	- I understand about hibernation and understand which animals hibernate and why. - I can research wind and explore wind direction. 	- happens to them. - I can use my observation skills to make a decision. 	- I can identify trees by their leaves. - I can sort deciduous and evergreen leaves. - I can identify and describe the parts of plants and trees. - I know who Wangari Maathai was and how she helped create peace. 	the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) 	sounds travel through our ears to send messages to our brain. - I can identify how our senses help us to understand the world around us. - I can understand that some people have problems with their senses such as blindness or deafness. 	
Year 2	<u>Living things and their habitats:</u> - I can compare the differences between things that are living, dead and never been alive. - I can identify that most living things live in habitats to which they are suited - I can describe how different habitats provide for the basic needs of different kinds of animals and plants. - I can identify and name a variety of plants and animals in their habitats, including microhabitats. 	<u>Everyday materials: (1 term)</u> - I can identify uses of everyday materials including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. - I can discuss the suitability of different materials for a variety of different objects. - I can discuss how objects can be made from different materials? - I can investigate how solid objects can be changed by squashing, bending, twisting and stretching. - I can explain what plastic pollution is. - I can explain some of the effects of plastic pollution. - I can explain ways in which we can reduce the amount of plastic we use. 	<u>Animals, including humans: animal needs</u> - I can find out about and describe the basic needs of animals including humans for survival (water, food and air) - I can identify animals and their offspring - I can talk about the importance of a healthy diet for humans and animals. - I can understand the importance of exercise.  **Change 4 life resources	<u>Living things and their habitats: animal needs</u> - I can describe how animals obtain their food from plants and other animals. - I can use a food chain to show how animals get their food. - I can identify and name different sources of food. - To understand that living things need other living things to survive.  https://www.oxfordowl.co.uk/api/interactives/12967.html 	<u>Plants:</u> - I can plant a seed and a bulb. - I can observe changes in my plants. - I can talk about how different plants grow. - I can find out and describe the basic needs of a plant to grow and stay healthy. 	

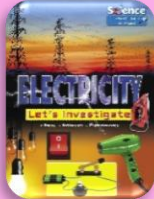
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	Keys stage 2					
Year 3	<u>Rocks:</u> - To compare different types of rocks based on their appearance. - To find out how different types of rocks are formed. - To find out about anthropic, permeable and metamorphic rocks. - To explain how soil is made. - To explain how different soil comes from different rocks. - To investigate permeability of soils - To research the impact Mary Anning had on palaeontology 	<u>Forces & Magnets:</u> - To compare how things move on different surfaces. - To classify materials as magnetic or non-magnetic. - To can sort magnetic and non-magnetic materials. - To can investigate the strength of magnets. - To explore magnetic poles. 	<u>Light and dark, sources and reflectors, shadows, sun safety:</u> - To recognise different sources of light. - To understand that objects can be seen when light is reflected off them. - To understand why light reflects off mirrors. - To research how the sun is damaging for vision and the skin. - To understand how shadows are made. - To investigate the change in shadows. 	<u>Plants:</u> - To explore the requirements of plants for life and growth and how they vary from plant to plant. - To know that there are different parts of a plant and that each part has a different job. - To explain the requirements of plants for life and growth. - To investigate the way that water is transported through plants. - To explore the part that flowers play in the life cycle of flowering plants. - To know that seeds are dispersed in different ways. 	<u>Animals including humans:</u> 1 term - To understand why animals, including humans need the right type of food and nutrients. - To be able to compare and group animals by their diet. - To identify that humans and other animals have different types of skeletons. - To be able to identify and name bones in the human body. - To identify and explain the 3 main functions of a skeleton. 	
Year 4	<u>States of Matter:</u> 1 term - To know the difference between a solid, liquid and gas. - To investigate gases and explain their properties. - To observe that some materials change state when they are heated or cooled. - To assess the knowledge of states of matter. - To understand the effects of burning certain materials has on the environment. - To discuss what is single use plastic and what is re-useable and discuss the impact - To understand what happens when fuels are	<u>Sound:</u> - To ask and answer questions about the sounds that can be heard and to begin to consider how sounds are made. - To explain that sounds are made when an object vibrates and to begin to understand that we hear sounds when the vibrations travel from a source through a medium to our ears. - To use this knowledge to recognise why sounds get fainter when you are further from the source of the sound. - To notice patterns between the pitch and volume of a sound and the features of the object that produced it. - To use understanding of	<u>Living things and their habitats:</u> - To recognise that living things can be 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 consider some of the natural changes that could happen to an environment and to understand what some living things can do to survive such changes. - To recognise that changes to an environment can be dangerous to living things and to begin to understand what can be done to reverse some of the changes.	<u>Animals including humans:</u> - To understand the function of human teeth. - To complete a scientific enquiry on the effects of tooth decay. - To understand the basic parts of the digestive system. - To understand the function of each part of the digestive system. - To create a fact file about teeth and the digestive system - To assess my knowledge of the digestive system.	<u>Electricity:</u> - To explore electrical games and identify common appliances that run on electricity. - To identify common appliances that run on electricity. - To construct a simple circuit, identifying the basic parts. - To predict if different 'circuit' layouts will light a bulb, and then test their predictions. - To predict and investigate the outcome of different circuits involving a lamp and a switch. - To recognise some common conductors and insulators. - To demonstrate an understanding of electrical circuits, including naming its basic parts and drawing a	-

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	burnt. - To discuss why recycling is important. - To understand what global warming is. 	pitch and volume to answer questions about soundwaves - To use what they know about the world to ask and answer questions about the hearing of humans and other animals. - To understand that sound travels slower than light 			labelled diagram 	
Year 5	<u>Earth and Space:</u> 1 term - To understand how the sun's gravitational pull affects the earth and other planets - To understand how and why the moon orbits the earth - To name and research the planets. - To further research into the properties of each planet. - To look at the placement of the Earth and other planets in relation to the sun. - To understand about night, day, and the Earth's rotation. 	<u>Forces:</u> - To explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object. - To explore the effects of air resistance by observing how parachutes fall. - To explore the effects of friction on movement and find out how it slows or stops moving objects. - To explore resistance in water by making and testing boats of different shapes. - To recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect. 	<u>Animals including humans:</u> - To draw a timeline to indicate stages in the growth and development of humans. - To understand learn about the changes experienced in puberty. - To describe the changes as humans develop to old age - To compare the gestation period of different mammals. - To recognise and explore key milestones in a humans life. - To identify physical and mental changes that happen from adulthood to old age.	<u>Living things and their habitats:</u> - To dissect and label the parts of a flowering plant, including male and female structures. - To describe the life process of reproduction in some plants and animals. - To describe the differences of life cycles of amphibians and insects. - To compare the life cycles of birds and mammals.	<u>Everyday Materials:</u> - To compare and group together everyday materials on the basis of their properties. - 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. - To understand how chemical change impacts our lives. 	-

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Year 6	<u>Evolution:</u> 0.75 terms - To understand who Charles Darwin was and his theory of Evolution (what evidence supports this) - To identify how animals and plants are adapted to suit their environment in different ways and that adaptations may lead to evolution. - To understand that adaptation is part of evolution - To recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents - To identify inherited characteristic that are passed on from parent to offspring. - To explain how inherited characteristics can lead to variation. - 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 understand the impact of humans on plants and animals in the past. - To understand the impact of humans on life on earth in the future (extinction) 	<u>Living things and their habitats:</u> - To recognise the importance of the classification system and its inception. - To classify animals through direct observations into commonly found invertebrates (such as insects, spiders, snails, worms) and vertebrates (fish, amphibians, reptiles, birds and mammals) - To discuss reasons why living things are placed in one group and not another. - To be able to give reasons for how groups and subgroups are chosen based on specific characteristics similarities and differences. - To use classification systems and keys to identify some animals and plants in the immediate environment 	<u>Electricity:</u> - To recognise symbols when representing a simple circuit in a diagram - To identify faults in electrical circuits and circuit diagrams before suggesting how to fix the problem. - To investigate whether the thickness or length of wire changes the brightness of a bulb. - 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. 	<u>Light :</u> 0.75 terms - To recognise that light travels in straight lines from light sources. - To understand how light creates an image. - To understand that light travels in straight lines. - To recognise that light is reflected off some surfaces better than others. - To realise that light can change direction because of refraction. - To recognise that light appears to travel in straight lines by exploring prisms and creating colour wheels. - To use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. 	<u>Animals Including Humans: Blood and Circulation</u> - To understand who William Harvey is and the importance of his discovery. - To identify and name the main parts of circulatory system, and describe the functions of the heart, blood vessels and blood. - To describe how oxygen circulates around our bodies. - To take measurements using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate. - To recognise the impact of diet exercise and lifestyle on the way their bodies function.  - https://www.youvisit.com/tour/melissa.jimenez	
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