

“As unique individuals, we do our best at work and play for the love of God and others.”



7 Year Subject Overview for Science

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
Year Rec	<p><u>Our Body</u></p> <ul style="list-style-type: none"> To know about and name body parts (arms, legs, chest, hands and feet, eyes and nose, ears, mouth, hair) and describe what they do To know we have similarities and differences <p><u>Senses</u></p> <ul style="list-style-type: none"> To learn about senses To explore ways to make sound 	<p><u>Materials</u></p> <ul style="list-style-type: none"> To know some names of different materials To understand materials can change To know where some materials come from <p><u>Food</u></p> <ul style="list-style-type: none"> To understand where some foods comes from To know what makes us healthy 	<p><u>Space</u></p> <ul style="list-style-type: none"> To know what space is <p>Learn the name of some planets</p> <p><u>Health and safety</u></p> <ul style="list-style-type: none"> To know different ways to be safe 	<p><u>Animals</u></p> <ul style="list-style-type: none"> To name different types of animals To explore habitats <p><u>Insects</u></p> <ul style="list-style-type: none"> To know what an insect is To know where insects live 	<p><u>Forces</u></p> <ul style="list-style-type: none"> To describe different forces <p><u>Weather and seasons</u></p> <ul style="list-style-type: none"> To know the name of different season To recognise types of weather To discuss ways to be safe in. different types of weather 	<p><u>Plants</u></p> <ul style="list-style-type: none"> To know what a plant looks like To name parts of a plant To discuss how to look after plants To understand how plants are made and grow
Year 1	<p><u>Animals Including Humans: About Me. Who Am I?</u></p> <ul style="list-style-type: none"> To learn about the senses, sight, touch and taste To learn about the senses of hearing and smell To identify, name and draw parts of the human body To learn about the changes in your body since you were a baby To understand the importance of taking care of your body 	<p><u>Seasons:</u></p> <ul style="list-style-type: none"> To recognise different types of weather To learn about clouds and rainfall To recognise the different types of cold weather To explain how to keep safe during thunderstorms To look at different types of weather and how it affects places on Earth To identify the four seasons 	<p><u>Animals including Humans: about animals</u></p> <ul style="list-style-type: none"> To understand what animals need to grow To know where birds live and what they eat. To explore how animals need to be cared for differently. To discover how animal's offspring is the same as its parents. To identify animals: fish, amphibians, reptiles, birds and mammals. To identify common carnivores, herbivores and omnivores. 	<p><u>Introduction to Plants</u></p> <ul style="list-style-type: none"> To Understand what a plant needs to grow well To know the basic parts of the plant To identify and describe the basic structure of a variety of common flowering plants and trees To know about the different sources of food grown by farmers To understand the difference between evergreen and deciduous plant To know that plants change over time 	<p><u>Uses of everyday materials</u></p> <p><u>Uses of everyday materials</u></p> <ul style="list-style-type: none"> To know every day uses of magnets To recognise a variety of widely used materials To understand why materials are chosen for specific tasks To understand that magnets only attract certain metals To understand that magnets have a north and south pole To know how to test materials for their 	<p><u>Exploring Everyday materials</u></p> <ul style="list-style-type: none"> To identify the materials objects are made from To describe some physical properties of materials To group materials by their physical properties To explore everyday materials which are transparent or opaque To explore everyday materials that are absorbent or non-absorbent



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	<ul style="list-style-type: none"> To show that humans mimic nature (learn about habitats) 			<ul style="list-style-type: none"> To identify and name a variety of common wild and garden plants 	<p>strength; understand that some materials are natural, and some are man made</p>	
Year 2	<p><u>Animals including Humans: Diet and Health</u></p> <ul style="list-style-type: none"> To learn the importance of exercise, a healthy diet, hygiene and what is needed for humans to survive. To learn the importance of nutrition for humans To know how to keep healthy through diet To know to keep healthy through daily exercise To understand how liquid is measured To understand how temperature is measured. 	<p><u>Everyday Materials</u></p> <ul style="list-style-type: none"> To explore the work of Charles MacIntosh; understand how the properties of materials can be changed To know about John McAdam’s invention; recognise that new materials are constantly being invented To explore the work of John Dunlop; identify and compare the usefulness of certain materials when forces are applied To explain why we use certain materials To investigate squashing, bending, twisting and stretching To compare the uses of everyday materials 	<p><u>Animals including Humans: growth</u></p> <ul style="list-style-type: none"> To learn the life cycle of birth, growth, reproduction and death To learn about reproduction and growth in animals To learn how humans grow by looking at how babies grow in to adults To describe the stages of life from adulthood to old age To know the life cycle of a frog To describe the life cycle of a butterfly To compare generations of families to help understand how characteristics are inherited 	<p><u>Living things and their habitats: habitats around the world</u></p> <ul style="list-style-type: none"> To know that living things live in environments which they are suited to To appreciate that environments are constantly changing To describe live in the Ocean To appreciate the dangers to ocean life To explore the arctic and Antarctic habitats To explore the rainforest and its problems To understand desert, underground and ocean habitats 	<p><u>Living things and their habitats</u></p> <ul style="list-style-type: none"> To explore the difference between things that are living, dead and things that have never been alive. To identify and name a variety plants and animals in a micro habitat To describe how animals obtain their food from plants. To know about different sources of food grown by farmers To understand the journey food makes from farm to supermarket To learn about the food chain 	<p><u>Plants: growth and care</u></p> <ul style="list-style-type: none"> To understand what plants need in order to thrive. To understand that plants needs water, food and light, and a suitable temperature in order to grow To understand the difference between a bulb and a seed. To understand that plants make their own food. To know how plants grow from a seed to a plant. To recognise the importance of flowers and seeds
Year 3	<p><u>Rocks</u></p> <ul style="list-style-type: none"> To describe how mountains are formed To recognise the difference between igneous, metamorphic and sedimentary rocks. To understand what a fossil is To describe what soils are made of 	<p><u>Forces and magnets</u></p> <ul style="list-style-type: none"> To understand magnetism To learn about different magnets To know that the Earth behaves like a magnet To learn about magnetic fields; learn about the law of magnetic attraction 	<p><u>Plant life cycles</u></p> <ul style="list-style-type: none"> To describe how plants soak up water To describe the life cycle of a plant To explain how plants make their own food To name the parts of a flower and describe what they do 	<p><u>Exploring the world of Plants</u></p> <ul style="list-style-type: none"> To describe the process of germination in seeds and bulbs To explain how water and food moves around a plant To understand asexual reproduction in plants 	<p><u>Animals including Humans: What Makes Us</u></p> <ul style="list-style-type: none"> To learn the importance of nutrition for humans To know how to keep healthy through diet To learn about voluntary and involuntary muscles To have an introduction to the skeleton 	<p><u>Light</u></p> <ul style="list-style-type: none"> To explain how shadows are formed To explore light To understand different types of mirrors To know what a periscope is and how it is used



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	<ul style="list-style-type: none"> To observe rocks To classify different types of weathering To identify common rocks 	<ul style="list-style-type: none"> To know that magnetic needles always point north To compare how things move on different surfaces 	<ul style="list-style-type: none"> To describe the process of pollination To describe the different ways plants share their seeds 	<ul style="list-style-type: none"> To describe the features of non-vascular plants To explore extraordinary plants and fungi To explore the rainforest and its problems 	<ul style="list-style-type: none"> To know about the skeleton-ligaments and tendons To explore how skeletons and muscles are used for support, protection and movement 	<ul style="list-style-type: none"> To explain how reflective surfaces help to keep us safe To recognise that light from the sun can be dangerous and that there are ways to protect your eyes
Year 4	<p><u>Sound</u></p> <ul style="list-style-type: none"> To describe how sound travels To explain what causes sound To compare the speed of sound and the speed of light To compare solids, Liquids and gases To describe different sounds To explain how to protect your ears 	<p><u>Animals including food: Human digestion</u></p> <ul style="list-style-type: none"> To understand salivary glands and taste buds To know the different types of teeth To understand the intestines To understand the food pyramid and why it is important To know about vitamins and minerals To understand food chains, know how natural cycles work 	<p><u>States of matter:</u></p> <ul style="list-style-type: none"> To compare and group solids, liquids and gases To investigate the effect temperature has on changing state To understand diluting and dissolving To understand evaporation and condensation To understand the water cycle To describe freezing and melting 	<p><u>Living Things and their habitats: Nature and the environment</u></p> <ul style="list-style-type: none"> To know about the balance of nature To describe ecosystems and how they are affected by changes in the environment To understand human impact on the environment To explore air pollution To understand water pollution To explore methods that can be used to conserve water 	<p><u>Electricity</u></p> <ul style="list-style-type: none"> To identify when a lamp will light in a simple series circuit To explore how electricity is transported To understand the difference between a series and parallel circuit To explain how to recognise electrical conductors and insulators To describe the basic parts of a circuit To know how to work safely with electricity 	<p><u>Classifying living things and their Habitats</u></p> <ul style="list-style-type: none"> To understand habitats To know how scientists classify animals To understand the difference between vertebrate and invertebrate To know about cold blooded birds and mammals To know about warm blooded birds and mammals To understand how fish are different from amphibians and reptiles
Year 5	<p><u>Animals including Humans: The human Lifecycle</u></p> <ul style="list-style-type: none"> To know about life cycles To know about human reproductive organs To exploring gestation periods To describe the changes which happen in childhood 	<p><u>Forces</u></p> <ul style="list-style-type: none"> To describe the life and work of Sir Isaac Newton To explore gravity and air resistance To understand water resistance and friction To investigate mechanisms-levers and pulleys To investigate mechanisms- gears 	<p><u>Changes in Materials</u></p> <ul style="list-style-type: none"> To understand the actions of filtering, sieving and evaporating To be able to explain the words dissolve and solution To understand that some changes to materials are not reversible 	<p><u>Properties of materials</u></p> <ul style="list-style-type: none"> To compare the properties and uses of different materials To describe the properties of different materials To make the perfect sandcastle To explore materials which can be derived from crude oil; explain the 	<p><u>Earth and Space</u></p> <ul style="list-style-type: none"> To describe Nicolaus Copernicus' ideas about planetary motion To describe the movement of the Earth in Space To describe the characteristics of the planets in our solar system To describe the Big Bang theory 	<p><u>Studying living things</u></p> <ul style="list-style-type: none"> To know the life and work of Sir David Attenborough To know about the life and work of Dame Jane Goodall To learn about sexual reproduction To describe the life cycles of a mammal, bird and reptile



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	<ul style="list-style-type: none"> • To understand changes which happen in adolescence • To describe the changes as humans develop to old age 	<ul style="list-style-type: none"> • To predict if an object will float or sink 	<ul style="list-style-type: none"> • To understand that a chemical change alters a molecule permanently • To know the difference between elements, compounds and mixtures • To know the difference between physical and chemical change 	importance of carbon compounds in our lives <ul style="list-style-type: none"> • To explore extracting useful substances from natural resources • To explore the thermal conductivity of materials to improve energy efficiency in buildings or other systems 	<ul style="list-style-type: none"> • To learn about gravitational force • To explore what causes the different phases of the Moon • To know about comets, asteroids and meteors. 	<ul style="list-style-type: none"> • To describe the life cycle of an insect and amphibian • To learn about asexual reproduction
Year 6	<p><u>Animals including Humans: blood transportation</u></p> <ul style="list-style-type: none"> • To describe the composition of blood • To describe how oxygen is moved around the body • To explain how blood is filtered • To describe what a blood transfusion involves • To describe how diabetes is managed • To describe the roles of bacteria 	<p><u>Evolution and inheritance</u></p> <ul style="list-style-type: none"> • To explain how adaptations help animals and plants survive • To explain what fossils can tell us • To describe the process of genetic modification • To explain why animals can look different to their parents • To describe the process of natural selection • To explore the work of palaeontologist Mary Anning 	<p><u>Animals including humans: the heart and health</u></p> <ul style="list-style-type: none"> • To describe the function of blood • To describe the function of blood vessels • To describe how your heart moves blood around the body • To describe what affects your heart rate • To describe the consequences of an unhealthy lifestyle • To explore the different food groups and identify ways to eat a balanced diet 	<p><u>Light</u></p> <ul style="list-style-type: none"> • To compare material of different transparencies • To explain how light travels in a straight line and shadows are formed • To describe how lenses can be used • To show white light is a mixture • To explain how water can bend light • To investigate light colour mixing 	<p><u>Electricity</u></p> <ul style="list-style-type: none"> • To explain how objects become charged • To describe the parts of an electric circuit • To explain what effects the output of a circuit • To compare electrical conductors and insulators • To build a set of traffic lights • To explain how variable resistors can work like a switch 	<p><u>Living things and their Habitats</u></p> <ul style="list-style-type: none"> • To classify living things • To explore the kingdoms of life • To describe the work of Carl Linnaeus • To identify different classes of vertebrates • To explore soil habitats • To describe different types of fungi