

Throughout Reception: Understanding Of The World

Children in Reception will be learning to:	Examples of how we support this:	Key Vocabulary:	
Explore the natural world around them.	<ul style="list-style-type: none"> -Frequent opportunities for outdoor play and exploration. -Encourage interactions with the outdoors to foster curiosity and give children freedom to touch, smell and hear the natural world around them during hands-on experiences. -Create opportunities to discuss how we care for the natural world around us. -Opportunities to sing songs and join in with rhymes and poems about the natural world. -After close observation, draw pictures of the natural world, including animals and plants. -Observe and interact with natural processes, such as ice melting, a sound causing a vibration, light travelling through transparent material, an object casting a shadow, a magnet attracting an object and a boat floating on water. 	animals plants see touch feel float water senses	hear natural ice melting material shadow magnet attract
Describe what they see, hear and feel whilst outside.	<ul style="list-style-type: none"> -Encourage focused observation of the natural world. -Listen to children describing and commenting on things they have seen whilst outside, including plants and animals. -Encourage positive interaction with the outside world, offering children a chance to take supported risks, appropriate to themselves and the environment within which they are in. -Name and describe some plants and animals children are likely to see, encouraging children to recognise familiar plants and animals whilst outside. 	world natural growing leaves see hear feel	outdoors environment trees colour
Understand the effect of changing seasons on the natural world around them.	<ul style="list-style-type: none"> -Guide children's understanding by draw children's attention to the weather and seasonal features. -Provide opportunities for children to note and record the weather. Select texts to share with the children about the changing seasons. -Throughout the year, take children outside to observe the natural world and encourage children to observe how animals behave differently as the seasons change. Walks in Oakhill Park. -Look for children incorporating their understanding of the seasons and weather in their play. 	weather seasons Autumn Winter Spring Summer	observe behave change temperature world
Throughout Reception: Aspects of 'Physical and Personal Development'			
Manage their own needs: <ul style="list-style-type: none"> • Personal hygiene -Know and talk about the different factors that support their overall health and wellbeing: <ul style="list-style-type: none"> • regular physical activity • healthy eating • toothbrushing • sensible amounts of 'screen time' • having a good sleep routine 	<ul style="list-style-type: none"> -Model practices that support good hygiene, such as insisting on washing hands before snack time. -Narrate your own decisions about healthy foods, highlighting the importance of eating plenty of fruits and vegetables. -Help individual children to develop good personal hygiene. Acknowledge and praise their efforts. Provide regular reminders about thorough handwashing and toileting -Talk with children about exercise, healthy eating and the importance of sleep. -Use picture books and other resources to explain the importance of the different aspects of a healthy lifestyle. 	hygiene health physical eating healthy tooth brushing sleep routine fruit vegetables exercise	

Term	Reception	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
UNITS, CORE CONCEPTS, KEY VOCABULARY							
Autumn Units & Key Vocabulary	<p>Health and Self-Care Setting expectations for hygiene practices at school such as washing our hands after using the toilet.</p> <p>Key Vocab: Hygiene, health, physical, eating</p> <p>The Natural World Find out about birds' nests and visit the park to gather materials to gather. Look at trees in our setting and compare different types of sticks. Visiting the local park and looking for signs of Autumn.</p> <p>Making observations about Autumn leaves. Making observations about animals at this time of year (possibly creating a bird feeder). Describing what leaf man would pass if he went on a journey around our local area. Exploring and describing the woods in the park (linked to the Gruffalo)</p> <p>Key Vocab: animals, plants, see, touch, feel, senses, hear, world, natural, growing, leaves, see, hear, feel, weather, seasons, Autumn</p>	<p>Everyday Materials (Chemistry)</p> <p>Key Vocab: Wood, Plastic, Glass, Paper, Water, Metal, Rock, Hard, Soft, Bendy, Rough, Smooth</p> <p>Key Scientist: Henry Bessemer, British Engineer (Steel)</p> <p>Our Changing World: Seasons (Physics)</p> <p>Key Vocab: Summer, Spring, Autumn, Winter, Sun, length, day, Tree, Leaves Deciduous, Evergreen, Hibernates</p> <p>Key Scientist: Sir Christopher Wren (inventor of rain gauge)</p>	<p>Materials: Good Choices (Chemistry)</p> <p>Key Vocab: hard, Soft, Stretchy, Stiff, Shiny, Dull, Rough, Smooth, Bendy, Waterproof, Absorbent, Opaque, Transparent Brick, Paper, Fabrics</p> <p>Key Scientist: Charles Macintosh (invented waterproof raincoat)</p> <p>Changing Materials (Chemistry)</p> <p>Key Vocab: Squashing, Bending, Twisting, Stretching, Elastic,</p> <p>Key Scientist: Solar Roadways Vision</p>	<p>Amazing Bodies (Biology)</p> <p>Key Vocab: movement, Muscles, Bones, Skull, Nutrition, Skeletons, diet, healthy, nutrition, support, protection</p> <p>Key Scientist: Mary Seacole (nurse)</p> <p>The Power of Forces (Physics)</p> <p>Key Vocab: magnetic, Force, Contact, Attract, Repel, Friction, Poles, Push, Pull</p> <p>Key Scientist: William Gilbert (the first man to research the properties of the lodestone (magnetic iron ore))</p>	<p>Electricity: Switched On! (Physics)</p> <p>Key Vocab: cells, Wires, Bulbs, Switches, Buzzers, Battery, Circuit, Series, Conductors, Insulators, brightness</p> <p>Key Scientist: Benjamin Franklin (He demonstrated that lightning and electricity are identical with his famous kite experiment.) Garett Morgan (African American Inventor – three-way traffic light)</p> <p>Animals: Where does all that food go? (Digestion) (Biology)</p> <p>Key Vocab: mouth, Tongue, Teeth, Oesophagus, Stomach, Small Intestine, Large Intestine, Herbivore, Carnivore, Canine, Incisor, Molar</p> <p>Key Scientist: Dr. Jessie G. Garnett (first black female dentist)</p>	<p>Body Pump (Biology)</p> <p>Key Vocab: circulatory, Heart, Blood Vessels, Veins, Arteries, Oxygenated, Deoxygenated, Valve, Exercise, Respiration</p> <p>Key Scientist: Ibn an-Nafis (Muslim physician who began to describe the pulmonary circulation of the blood).</p> <p>Forces: Feel the Force (Physics)</p> <p>Key Vocab: Resistance, Newton, friction, forces, mechanism, movement, gear</p> <p>Key Scientist: Sir Isaac Newton (gravity).</p>	<p>Classification: The Nature Library (Biology)</p> <p>Key Vocab: mammal, amphibian, insect, bird, fish, reptile, eggs, live young, classification, vertebrate, invertebrate, specific, characteristic, mollusc, arachnid, annelid, variation, key, micro-organism</p> <p>Key Scientists: Carl Linnaeus (Classification System); Dame Sarah Gilbert (viruses and vaccines); Rosalind Franklin (chemist – viruses)</p> <p>Electricity: Danger Low Voltage (Physics)</p> <p>Key Vocab: electricity, electrons, recognised symbols, components, cell, battery, positive, negative, terminal, connection, wire, bulb, brightness, switch, buzzer, motor, conductor, insulator, voltage, current, resistance, series, parallel</p> <p>Key Scientist: Thomas Edison & Lewis Latimer (Light bulb invention) Nikola Tesla (electric system)</p>
Autumn Core Concepts	<p>1.1.Be increasingly independent in meeting their own care needs. E.g. using the toilet, washing and drying their hands thoroughly.</p> <p>3.2. Make healthy choices about food, drink, activity and tooth brushing.</p> <p>1.2.Explore the natural world around them</p>	<p>-Identify and name a variety of materials including wood, plastic, glass, metal, water and rock</p> <p>Know the difference between an object and the material it is made from.</p> <p>Describe and compare physical properties of materials.</p> <p>-To make observations about the season of Autumn</p> <p>To understand how different plants change across the seasons.</p> <p>To develop an understanding of how the</p>	<p>-Identify and compare the suitability of materials including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses.</p> <p>-Shape of some objects can be changed by squashing, bending, twisting and stretching</p>	<p>-animals including humans can't make their own food and get nutrition from what they eat. Need the right types and amounts of nutrition to stay healthy.</p> <p>-humans and some animals have skeletons and muscles for support, movement and protection.</p> <p>Some forces need contact between objects but magnetic forces can act at a distance</p> <p>- magnetic forces including attract and repel. and Identifying magnetic materials</p> <p>Magnets have 2 poles</p>	<p>-Construct simple series circuits and name cells, wire, bulbs, switches and buzzers.</p> <p>-Whether a lamp will light in a series circuit, based on a complete loop with a battery and closed switch.</p> <p>Some common conductors and insulators</p> <p>-Describe functions of mouth, oesophagus, stomach, small intestine and large intestine, including types of teeth.</p> <p>-Food chains identifying producers, predators and prey</p>	<p>-Identify and describe functions of heart, blood vessels and blood.</p> <p>-Animals including humans use blood for nutrients and water transport.</p> <p>- air resistance, water resistance and friction act between moving surfaces;</p> <p>force of gravity causes unsupported objects to fall towards Earth;</p> <p>Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect</p>	<p>-Give reasons for classifying plants and animals based on their characteristics.</p> <p>Symbols for representing a circuit in a diagram</p> <p>-Investigate and give reasons for variations in how components function in circuits (including series and parallel).</p> <p>Brightness of lamp or loudness of buzzer is associated with number and voltage of cells in a circuit</p>

		changing seasons impact some animals.					
Spring Units & Key Vocabulary	<p>Health and Self-Care Thinking about how they can make healthy choices about the food they eat. (This could include planning a healthy meal); Creating their own short exercise routine; Encouraging children to carry out self-care activities independently; Exploring how they can take care of the world around them (particularly in relation to looking after plants and wildlife)</p> <p>Key Vocab: Eating, healthy, tooth brushing, sleep, routine, fruit, vegetables, exercise</p> <p>The Natural World Exploring ways of making different sounds; Exploring how to make porridge; Describing the process of making toast and observing how bread changes after being placed in a toaster; Growing Beans / sunflowers; Planting bulbs in our Reception Garden/ planters; Making observations about plants in our local area including the local park; Finding out about jobs relating to plants and taking care of our environment; Making a healthy fruit smoothie; exploration of ice; exploration of flowers with magnifying glasses.</p> <p>Key Vocab: plants, world, natural, growing, leaves, outdoors, environment, trees, colours, temperature, change, Spring, behave, ice, material, melting, water, float</p>	<p>Using Our Senses: The Human Body (Biology) Key Vocab: Senses, sight, smell, taste, hear, feel, touch, nose, ears, eyes, skin, taste buds, brain, texture, tongue</p> <p>Key Scientist: David Julius and Ardem Patapoutian (discovery about our senses)</p> <p>Our Changing World: Seasons: Plants/Animals (Biology) Key Vocab: Deciduous, Evergreen, seasons, Tree, Leaves, Daisy, Daffodil, fruit, Chick, duckling, calf</p> <p>Key Scientist: Beatrix Potter (natural scientist and conservationist, writer, illustrator)</p>	<p>Growing Up (Biology) Key Vocab: survival, Water, Air, Food, Adult, Baby, Offspring, Kitten, Calf, Puppy,</p> <p>Take Care (Biology) Key Vocab: Exercise, Hygiene</p> <p>Key Scientist for Spring Term: Elizabeth Garrett Anderson (first English woman to qualify as a doctor in 1865)</p>	<p>Rock Detectives (Chemistry) Key Vocab: fossils, Soils, Sandstone, Granite, Marble, Pumice, Crystals, sedimentary, metamorphic, igneous, absorbent/porous, durable, permeable, impermeable</p> <p>Key Scientist: Mary Anning (English palaeontologist)</p> <p>How does your garden grow? (Biology) Key Vocab: air, Light, Water, Nutrients, Soil, Reproduction, Transportation, Dispersal, Pollination, Flower, trunk, stem, leaves,</p> <p>Key Scientist: Sir Joseph Banks (Botanist, who helped create Kew Gardens)</p>	<p>In a State? (Chemistry) Key Vocab: solid, Liquid, Gas, Evaporation, Condensation, Particles, Temperature, Freezing, Heating, Precipitation</p> <p>Key Scientist: Agnes Pockels (German chemist – properties of liquids and solids)</p> <p>Who Am I? (Biology) Key Vocab: vertebrates, Fish, Amphibians, Reptiles, Birds, Mammals, Invertebrates, Snails, Slugs, Worms, Spiders, Insects, Environment, Habitats, classify</p> <p>Key Scientist: Rachel Carson (marine biologist – studied food chains in the ocean and noticed a problem).</p>	<p>Circle of Life/Reproduction in Plants (Biology) Key Vocab: Foetus, Embryo, Womb, Gestation, Baby, Toddler, Teenager, Elderly, Growth, Development, Puberty; pollination; fertilisation; stamen; carpel; pollen</p> <p>Key Scientist: Maria Sibylla Merian was a German-born naturalist and artist who revolutionized the study of insects and plants in the 17th and 18th centuries. Key focus on metamorphosis.</p> <p>Separating Mixtures: Marvellous Mixtures (Chemistry) Key Vocab: Magnetic, Filter, Evaporation, Dissolving, sieving, Mixing, chemist</p> <p>Key Scientist: Robert Boyle (He defined elements, compounds, and mixtures; and he discovered the first gas law – Boyle's Law.) Marie Curie: Codiscovered the chemical elements radium and polonium.</p>	<p>Light Up Your World (Physics) Key Vocab: light, light source, darkness, reflect, reflective, shadow, block, absorb, direction, transparent, opaque, translucent, refraction, spectrum, rainbow</p> <p>Key Scientist: Dr. Patricia Bath (Laser cataract surgery)</p> <p>Everything Changes: Evolution, Adaptation and Inheritance (Biology) Key Vocab: evolution, suited/suitable, adapted, adaptation, offspring, reproduction, variation, inherit, inheritance, fossils, Characteristics, Genetics, Charles Darwin, breeding, natural selection,</p> <p>Key Scientist: Charles Darwin and Alfred Wallace (adaptation and evolution); Meeman Chang, s a Chinese paleontologist</p>
Spring Core Concepts	<p>2.1. Further develop the skills they need to manage the school day successfully: -Mealtimes; Personal; hygiene</p> <p>2.1. Describe what they see, hear and feel whilst outside.</p> <p>2.3. Understand the effect of changing seasons on the natural world around them.</p> <p>2.4. Recognise some environments that are different to the one in which they live.</p>	<p>- name, draw and label parts of the body and say which is associated with each sense</p> <p>-Identify and name a variety of garden and wild plants.</p> <p>-To understand how different plants change across seasons</p> <p>-To develop an understanding of how the changing seasons impact some animals.</p>	<p>-animals including humans have offspring which grow into adults.</p> <p>-animals including humans need water, food and air for survival.</p> <p>-importance of exercise, eating a variety of foods and hygiene for humans.</p>	<p>-group by physical properties of rocks.</p> <p>Soils are made from rocks and organic material</p> <p>-Fossils are formed when things that have lived are trapped within rock</p> <p>-Functions of roots, stem, leaves and how water is transported.</p>	<p>-Compare and group materials: solid, liquid, gases.</p> <p>-some materials change state when heated or cooled.</p> <p>- Evaporation and condensation in The water cycle and evaporation rate is associated with temperature.</p> <p>-Explore and use classification keys to help group and identify living things.</p>	<p>-Describe the changes as humans develop to old age.</p> <p>-Explain the differences in the life cycles of a mammal, an amphibian, an insect and a bird.</p> <p>-Describe the life process of reproduction in some plants</p> <p>-Explore how mixtures might be separated: filtering, sieving, evaporating</p> <p>Some materials dissolve in liquid and can be recovered from a solution</p>	<p>-Light travels in straight lines so we see things when reflected or emitted light reaches the eye and shadows have the shape of the object.</p> <p>-Living things have changed over time and fossils provide us with information about living things millions of years ago.</p> <p>-Offspring vary and are not identical to parents.</p> <p>-Adaptation to environment can lead to evolution.</p>

Summer Units & Key Vocabulary	<p>Health and Self-Care Naming different parts of our body; Thinking about how we can show respect for our bodies (exercise and healthy eating)</p> <p>Key Vocab: exercise, healthy, body, physical, sleep, routine, fruit, vegetables, health</p> <p>The Natural World Learning about the life cycle of a caterpillar and making observations of live caterpillars and butterflies; Investigating which mini beasts live in our school environment; Learning about what mini beasts need in order to survive and creating their own mini beast habitat; Discovering how palaeontologists find out about dinosaurs.</p> <p>Key Vocab: animals, see, hear, cycle, environment, palaeontologist, dinosaur, fossil, caterpillar, chrysalis, stage, butterfly, change, wings</p>	<p>Plant Detectives (Biology)</p> <p>Key Vocab: deciduous, Evergreen, Tree, Leaves, Flowers (blossom), Petals, Fruit, Roots, Bulb, Seed, Trunk, Branches, Stem,</p> <p>Looking At Animals (Biology)</p> <p>Key Vocab: fish, Reptiles, Mammals, Birds, Amphibians (+ examples of each) Herbivore, Omnivore, Carnivore, Leg, Arm, Elbow, Head, Ear, Nose, Back, Wings, Beak</p> <p>Key Scientist for Summer Term: David Attenborough</p>	<p>The Apprentice Gardener (Biology)</p> <p>Key Vocab: seeds, Bulbs, Water, Light, Suitable temperature, Grow, Healthy, Germinate, Decompose</p> <p>Key Scientist: Marie Clark Taylor was the first African American woman to receive a Ph.D in botany.</p> <p>What's in your Habitat? (Biology)</p> <p>Key Vocab: living, dead, Habitat, Energy, Food chain, Predator, Prey, Woodland, Pond, Desert</p> <p>Key Scientist: Prem Singh Gill (Polar scientist, studies Antarctic seals) Eugenie Clark (Shark lady: marine conservationist)</p>	<p>How does your garden grow? Cont.. (Biology)</p> <p>Key Vocab: air, Light, Water, Nutrients, Soil, Reproduction, Transportation, Dispersal, Pollination, Flower, seed dispersal, seed formation</p> <p>Key Scientist: George Washington Carver (an African American agricultural scientist and inventor who promoted alternative crops to cotton and methods to prevent soil depletion.)</p> <p>Light: Can you see me? (Biology)</p> <p>Key Vocab: light, Shadows, Mirror, Reflective, Dark, Reflection, light source, cast , surfaces, source, blocked, patterns, change</p> <p>Key Scientist: Lewis Latimer (African American Scientist and inventor – invented an improved light bulb filament)</p>	<p>Sound: Good Vibrations (Physics)</p> <p>Key Vocab: volume, Vibration, Wave, Pitch, Tone, Speaker, medium, ear, patterns, distance</p> <p>Key Scientist: Alexander Graham Bell (Scottish-born inventor, scientist and engineer who is credited with patenting the first practical telephone)</p> <p>Human Impact (Biology)</p> <p>Key Vocab: environment, human impact, change, habitats, deforestation, positive, negative, nature, reserves, ecology, population, development, litter, greenhouse effect, emissions, climate change, sustainable, solar power, wind power, hydro power, fossil fuels, carbon dioxide</p> <p>Key environmental activist: Greta Thunberg Naturalist/conservationist: Chris Packham Inventor/Engineer: William Kamkwamba - Wind Power</p>	<p>Everyday Materials (Chemistry)</p> <p>Key Vocab: Thermal conductor, thermal insulator, electrical conductor, electrical insulator, properties, hardness, solubility, transparency, conductivity (electrical and thermal), magnetic</p> <p>Key Scientist: Walter Lincoln Hawkins: Black American chemist and engineer who helped develop plastic materials. Spencer Silver: an American chemist and inventor who specialized in adhesives.</p> <p>Reversible & Irreversible Changes: All Change! (Chemistry)</p> <p>Key Vocab: Reversible, irreversible, change, dissolving, burning, acid, state, reaction, process, melting, evaporating, rusting, chemists,</p> <p>Key Scientist: Irene Joliot-Curie 1897 – 1956. Co-discovered how to convert stable chemical elements into 'designer' radioactive elements; these have saved millions of lives and are used in tens of millions of medical procedures every year. Stephanie Kwolek: Invented Kevlar, the incredibly strong plastic used in applications ranging from body armour to tennis racquet strings.</p>	<p>Continued: Everything Changes: Evolution and Inheritance (Biology) World Bee Day on 20th May! Body Health (Biology) (links to PSHE unit)</p> <p>Key Vocab: Circulatory system, heart, blood, blood vessels, pumps, oxygen, carbon dioxide, lungs, nutrients, water, diet, exercise, drugs, lifestyle</p> <p>Key Scientist: William Harvey (English physician who was one of the first to describe accurately how blood was pumped around the body by the heart.)</p> <p>Space: The Earth and Beyond (Forces)</p> <p>Key Vocab: Earth, planets, sun, solar system, moon, celestial body, spherical, rotation, spin, night and day, names of planets, dwarf planet, orbit, geocentric model, heliocentric model, shadow clocks, sundial, Axis, Phases of the Moon, star, constellation, waxing, waning, full, new, year, month</p> <p>Key Scientist: Mae Jemison (is an American engineer, physician, and former NASA astronaut. She became the first black woman to travel into space).</p>
Summer Core Concepts	<p>3.1. Know and talk about the different factors that support their overall health and wellbeing: -Regular physical activity; Healthy heating; Tooth brushing; Sensible amounts of 'screen time'; Having a good sleep routine; Being a safe pedestrian ELG The Natural World-Explore the natural world around them, making observations and drawing pictures of animals and plants. ELG The Natural World-Know some similarities and differences between the natural world around</p>	<p>-Describe the structure of plants, including trees naming leaves, flowers, petals, fruit, roots, stem, trunk and branch Identify, describe and compare: fish, amphibians, reptiles, birds and mammals -name common animals that are carnivores, omnivores and herbivores</p>	<p>-how seeds and bulbs grow into plants. Plants need water, light and a suitable temperature for healthy growth -Explore different habitats and how animals are suited to them. -animals obtain food from plants and other animals -Food chains -Difference between things living, dead, never been alive.</p>	<p>- plants require water, sunlight, nutrients, air and space for growth The lifecycle of flowering plants including pollination, seed formation and seed dispersal -Eyes need light in order to see and dark is the absence of light Light is reflected from shiny surfaces -shadows are formed when light is blocked by a solid object and can change size and shape -light from the sun can be dangerous and how to protect our eyes.</p>	<p>-some sounds are made by something vibrating Sound travels through a medium to the ear -explore pitch and volume in relation to object producing sound and strength of vibration and distance -Environments can change and these changes can sometimes pose dangers to living things.</p>	<p>-Compare and group everyday materials based on their properties. Give reasons for their uses. -There are irreversible and irreversible changes and some result in new materials.</p>	<p>-Diet, exercise, drugs and lifestyle impact how our bodies function. -The movement of the Earth, relative to other planets and the sun/moon. -Explain night and day using the Earth's rotation.</p>

	<p>them and contrasting environments, drawing on their experiences and what has been read in class.</p> <p>ELG The Natural World-Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.</p>						
Working Scientifically Vocabulary	<p>observe, changes, temperature, listen, notice, question, sort, familiar, similarities, differences, explore, drawings</p>	<p>Questions, answers, equipment, gather, measure, record, results, sort, group, test, explore, observe, compare, describe, similar/ities, different/ces, beaker, pipette, syringe</p> <p>What...? How? Why ...?</p>	<p>observe, changes over time, notice, patterns, secondary sources, hand lenses, egg timers, identify, classify, data, slowly, quickly, describe, name, identify, label, record, measure, bigger and smaller, pattern, notice, cycle, predict</p>	<p>gradually, identify, observe, recognise, investigate, record, units, table, fair, evidence, research, length, observations, prediction, question, patterns, compare, describe, record, careful, enquiry, relevant, gather, classify, diagrams, conclusion, differences, similarities</p>	<p>Similarities, differences, research and sources, scientists, discovery, process, cycle, measurements, conclude, evaluate, rank, plan, vary, keep the same/constant, bar graph, table, tally, enquiry, increase, decrease, identify, classify, order, notice patterns, relationships, appearance, present results</p>	<p>Classify, interpret, pattern, relationship, prediction, analyse, interpret, conclude, evaluate, rank, variable, constants, control, repeat, key, relationship, line graph, independent variable, dependent variable, controlled variable, accuracy, precision, degree of trust, support/refute,</p>	<p>Hypothesis, variable, constants, evaluate, plan, conclude, interpret, classify, categorise, database, enquiry, control, repeat, support, refute, degree, of trust, opinion/fact, enquiry types, prediction, conclusion, improve, question, select, comparative, fair, measurement, observation, patterns, secondary sources</p>
Working Scientifically Skills	<p>Observing surroundings Comparing objects of the same type noticing differences Describing and drawing what has been observed.</p>	<p>Ask simple questions. Use simple observations and ideas to suggest answers to questions. Begin to notice patterns. Use simple measurements and equipment with support. To begin to use simple features to compare objects, materials and living things and, with help, decide how to sort and group them. Begin to talk about what they have found out and how they found it out</p>	<p>Observe closely, using simple equipment. To say what I am looking for and what I am measuring. To know how to use simple equipment safely. Begin to progress from non-standard units, reading mm, cm, m, ml, l, °C Perform simple tests. Record and communicate findings in a range of ways. Use simple secondary sources to find answers. To say whether surprised at the results or not. To say what would change about investigation.</p>	<p>Ask some relevant questions and use different types of scientific enquiries to answer them. Begin to make systematic and careful observations and, where appropriate, take accurate measurements using standard units. Begin to see a pattern in results. Begin to recognise when a simple fair test is necessary and help to decide how to set it up. Begin to record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. Begin to use straightforward scientific evidence to answer questions or support findings.</p>	<p>Help to make decisions about what observations to make, how long to make them for and the type of simple equipment that might be used. Set up simple practical enquiries, comparative and fair tests. Can think of more than one variable factor. Compare and group according to behaviour or properties, based on testing. Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations. Can say what found out, linking cause and effect.</p>	<p>Begin to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Begin to suggest improvements to my method and give reasons. Begin to decide when it is appropriate to do a fair test. Begin to record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar and line graphs. Begin to draw conclusions and identify scientific evidence. Can use simple models. Know which evidence proves a scientific point.</p>	<p>Begin to recognise more abstract ideas and begin to recognise how these ideas help them to understand how the world operates. Begin to recognise scientific ideas change and develop over time. 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. Separate opinion from fact. Can draw conclusions and identify scientific evidence. Recognise which secondary sources will be most useful to research their ideas.</p>

INTENT/WHY?

Science at St. Mary's starts from the premise of practical exploration and the understanding that Science is an everyday presence in everyone's world. All children experience practical and theoretical lessons where questioning is encouraged and celebrated. This enables children to develop an age appropriate understanding of the world around them and the part they play in it. We want our children to understand how scientific enquiry and critical thinking can help deepen our understanding of the world and how human impact plays a very important role.

A high-quality science education provides the foundations for understanding the world through the specific disciplines of biology, chemistry and physics. Science has changed our lives and is vital to the world's future prosperity, and all pupils should be taught essential aspects of the knowledge, methods, processes and uses of science. Through building up a body of key foundational knowledge and concepts, pupils should be encouraged to recognise the power of rational explanation and develop a sense of excitement and curiosity about natural phenomena.

LINKS TO? (Cross curricular History, Geography and Science links, PSHE, Values etc)

Whole Year	<p>Many links are made to the class key texts: Owl Babies, Stickman, Leaf Man, The Gruffalo's Child, Snow Bears, My Bean Diary, Jack and the Beanstalk, The Extraordinary Gardener, The Hungry Caterpillar, Snail Trail, Mad About Mini beasts, Mad about Dinosaurs</p> <p>Many links are made across the Reception Curriculum – please see Reception Curriculum Maps</p>	<p>Every Day Materials links to History (Toys Then and Now) and English (The Three Little Pigs) and DT (making houses for the 3 Little Pigs)</p> <p>Our Changing World: Seasons, links to English (Autumn poems) and Autumn walk through Oakhill Park.</p> <p>Plants links to English (The Gigantic Turnip); DT (Shoebox Gardens)</p> <p>Animals links to Whipsnade Zoo visit</p>	<p>Materials: Good Choices links to History (Toys Now and Then)</p> <p>Take Care links to PSHE (Healthy Me).</p> <p>The Apprentice Gardener links to English (Lila and Secret of Rain)</p>	<p>Amazing Bodies links to English (Funny bones)</p> <p>Rock Detectives links to English (A Pebble in my Pocket)</p> <p>How Does Your Garden Grow?</p> <p>Links to English (The Extraordinary Gardener)</p>	<p>Switched On! Links to DT (making electric pictures with flashing eyes)</p> <p>Human Impact links to English (The Great Kapok Tree) and having a picnic with as little litter as possible). It also links very much to our vision of caring for God's Creation.</p>	<p>Body Pump links to DT (making food for a healthy heart)</p> <p>Circle of Life links to Art (Scientific Illustration)</p> <p>Every Day Materials links to DT (using sustainable materials to make birdfeeders)</p>	<p>Electricity, Danger Low Voltage links to DT (making electrical Christmas decorations)</p> <p>Space: Earth and Beyond links to English (non-fiction writing about Space)</p>
------------	--	---	--	--	---	--	--