



Old Buckenham Primary School & Nursery
Science Progression Key Stage Two

Area of Study	Year 3	Year 4	Year 5	Year 6
Plants	<p>National Curriculum:</p> <ul style="list-style-type: none"> -Identify and describe the functions of different parts of flowering plants: roots; stem/ trunk, leaf and flowers. - 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. - Investigate the way in which water is transported within plants. - Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal. 	<p>Plants is not an area of study for the Y4 National Curriculum</p>	<p>Plants is not an area of study for the Y5 National Curriculum</p>	<p>Plants is not an area of study for the Y6 National Curriculum</p>
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	<p>Be able to recognise some living things as plants. - Recognise that although they may look different, plants have some features in common, e.g., roots, stem, leaves</p> <ul style="list-style-type: none"> - Be able to recognise and name major plant parts - Know that not all plants have flowers - Know that each part of a plant has a different job to do (function). - 			



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	<p>Understand that plants need water to live</p> <ul style="list-style-type: none">- Be able to identify the roots of a plant.- Be able to describe the functions of the roots of plants.- Describe how water moves from the soil into a plant's roots and up through the stem.- Be able to name basic plant needs.- Know that without air, light, water and nutrients a plant will not thrive.- Recognise that plants need the correct amount of water to grow well, e.g., that plants will not grow well if they have too much or too little water.- Know that plants can outgrow their containers and become root bound.- Recognise that some soils are better at supporting plant growth than others.- Understand that soil provides the nutrients to help plants grow- Recognise that fertilizers can provide additional nutrients to			
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	<p>help plants grow - Understand that many plants grow from seeds.</p> <ul style="list-style-type: none"> - Know that flowers are the parts of the plant where reproduction (new seed production) happens. - Know that seeds cannot form without a flower being pollinated. - Know that after pollination the plant produces fruit containing seeds. - Be able to describe some forms of seed dispersal. - Be able to sequence the life cycle of a flowering plant. 			
	<p>Key Vocabulary: photosynthesis, pollen, insect/wind pollination, male, female, seed formation, seed dispersal (e.g. wind dispersal, animal dispersal, water dispersal), air, nutrients, minerals, soil, absorb, transport</p>	<p>Key Vocabulary:</p>	<p>Key Vocabulary:</p>	<p>Key Vocabulary:</p>
<p>Living things and their habitats</p>	<p>National Curriculum This is not an area of study for the Y3 National Curriculum.</p>	<p>National Curriculum: Recognise that living things can be grouped in a variety of ways. - Explore and use classification keys to help group, identify and</p>	<p>National Curriculum: - Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.</p>	<p>National Curriculum: - Describe how living things are classified into broad groups according to common observable</p>



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		<p>name a variety of living things in their local and wider environment.</p> <p>- Recognise that environments can change and that this can sometimes pose dangers to living things.</p>	<p>-Describe the life process of reproduction in some plants and animals.</p>	<p>characteristics and based on similarities and differences, including microorganisms, plants and animals.</p> <p>-Give reasons for classifying plants and animals based on specific characteristics.</p>
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		<p>-Name living things living in a range of habitats, giving the key features that helped them to identify them</p> <p>-Give examples of how an environment may change both naturally and due to human impact.</p> <p>-keep a careful record of living things found in different habitats throughout the year (diagrams, tally charts etc.)</p> <p>-Use classification keys to identify unknown plants and animals</p> <p>-present learning about changes to the environment in different ways e.g. campaign video, persuasive letter</p>	<p>draw the life cycle of a range of animals identifying similarities and differences between the life cycles</p> <p>Explain the difference between sexual and asexual reproduction and give examples of how plants reproduce in both ways.</p> <p>Use secondary sources and, where possible, first-hand observations to find out about the life cycle of a range of animals.</p> <p>Compare the gestation times for mammals and look for patterns e.g. in relation to size of animal or length of dependency after birth.</p>	<p>Give examples of animals in the five vertebrate groups and some of the invertebrate groups</p> <p>-give the key characteristics of the five vertebrate groups and some invertebrate groups</p> <p>-compare the characteristics of animals in different groups.</p> <p>Give examples of flowering and non-flowering plants.</p> <p>use classification materials to identify unknown plants and animals</p> <p>-create classification keys for plants and animals</p> <p>- give a number of characteristics that explain</p>



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			<p>Look for patterns between the size of an animal and its expected life span.</p> <ul style="list-style-type: none"> • Grow and observe plants that reproduce asexually e.g. strawberries, spider plants, potatoes. - Plant bulbs and then harvest to see how they multiply. - Use secondary sources to find out about pollination. 	<p>why an animal belongs to a particular group.</p>
	<p>Key Vocabulary</p>	<p>Key Vocabulary classification, classification keys, environment, habitat, human impact, positive, negative, migrate, hibernate</p>	<p>Key Vocabulary life cycle, reproduce, sexual, sperm, fertilises, egg, live young, metamorphosis, asexual, plantlets, runners, cuttings</p>	<p>Key Vocabulary vertebrates, fish, amphibians, reptiles, birds, mammals, warm-blooded, cold-blooded, invertebrates, insects, spiders, snails, worms, flowering, non-flowering, mosses, ferns, conifers</p>
<p>Animals, Including Humans</p>	<p>National Curriculum: Identify that animal, including humans, need the right types and amount of nutrition, and that they cannot make their own food—they get nutrition from what they eat</p>	<p>National Curriculum Describe the simple functions of the basic parts of the digestive system in humans. - Identify the different types of teeth in humans and their simple functions.</p>	<p>National Curriculum: -Describe changes as humans develop to old age.</p>	<p>National Curriculum: -Identify and name the main parts of the circulatory system and describe the function of the heart, blood vessels and blood. -Recognise the impact of diet, exercise, drugs and</p>



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	<ul style="list-style-type: none"> - Identify that humans and some other animals have skeletons and muscles for support, protection and movement. 	<ul style="list-style-type: none"> - Construct and interpret a variety of food chains, identifying producers, predators and prey. 		<p>lifestyle on the way their bodies function.</p> <ul style="list-style-type: none"> - Describe the ways in which nutrients and water are transported within animals, including humans.
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	<p>Sort different types of food into groups.</p> <ul style="list-style-type: none"> - Know why we need different types of food to stay healthy. - Understand that some foodstuffs can be harmful to some animals. - Explain why undereating and overeating can be harmful. - Name some common bones - Know bones are strong and rigid. - Describe how muscles and tendons contract and relax to help with movement 	<ul style="list-style-type: none"> - Know that the human body has organs and be able to name some. - Know that each organ has a function - Understand that some groups of organs work together in a system. - Recognise that humans have a body system which digests (breaks down) food. - Know that this system is called the digestive system. - Be able to name and describe the main organs of the digestive system: teeth, mouth, tongue, oesophagus, stomach, small and large intestines, rectum and anus. - Be able to sequence the process of digestion. 	<ul style="list-style-type: none"> -explain the changes that takes place in boys and girls during puberty -explain how a baby changes physically as it grows, and also what it is able to do. -present information about the changes occurring during puberty as an information leaflet for other Y5 children or answers to 'problem page questions. 	<p>draw a diagram of the circulatory system and label the parts and annotate it to show what the parts do. - Produces a piece of writing that demonstrates the key knowledge e.g. explanation text, job description of the hear.</p> <p>Use the role play model to explain the main parts of the circulatory system and their role</p> <ul style="list-style-type: none"> -use subject knowledge about the heart whilst writing conclusions for investigations -explain both the positive and negative effects of diet, exercise, drugs and lifestyle on the body



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		<ul style="list-style-type: none"> - Know that teeth are part of the digestive system. - Recognise that human teeth are not all the same size or shape. - Be able to identify and name the main types of teeth in humans: incisor, canine, pre-molar, molar. 		- Present information e.g. in a health leaflet describing impact of drugs and lifestyle on the body
	<p>Key Vocabulary: nutrition, nutrients, carbohydrates, sugars, protein, vitamins, minerals, fibre, fat, water, skeleton, bones, muscles, joints, support, protect, move, skull, ribs, spine</p>	<p>Key Vocabulary: digestive system, digestion, mouth, teeth, saliva, oesophagus, stomach, small intestine, large intestine, rectum, anus, incisor, canine, molar, premolar, herbivore, carnivore, omnivore, producer, predator, prey</p>	<p>Key Vocabulary: puberty, the vocabulary to describe sexual characteristics in line with the school's RSE policy</p>	<p>Key Vocabulary: heart, pulse, rate, pumps, blood, blood vessels, transported, lungs, oxygen, carbon dioxide, cycle, circulatory system, diet, drugs, lifestyle</p>
Everyday Materials- States of Matter	<p>National Curriculum This is not part of the Y3 curriculum</p>	<p>National Curriculum: Compare and group materials together, according to whether they are solids, liquids or gases. - 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).</p>	<p>National Curriculum: - 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. • Know that some materials will dissolve in liquid to form</p>	<p>National Curriculum: This is not part of the Y6 curriculum</p>



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		<ul style="list-style-type: none">- Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.	<p>a solution and describe how to recover a substance from a solution.</p> <ul style="list-style-type: none">-Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating.-Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.-Demonstrate that dissolving, mixing and changes of state are reversible changes.- 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.	
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	<ul style="list-style-type: none"> -Distinguish between an object and the material from which it is made. (Y1 - Everyday materials - Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock. (Y1 -Everyday materials) - Describe the simple physical properties of a variety of everyday materials. (Y1 - Everyday materials) - Compare and group together a variety of everyday materials on the basis of their simple physical properties. (Y1 -Everyday materials) - Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. (Y2 -Uses of everyday materials) - Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching. (Y2 -Uses of everyday materials) 	<p>Understand that objects are made from materials.</p> <ul style="list-style-type: none"> - Know that different materials have different properties. - Know that solids, liquids and gases are groups of materials with different general properties. - Be able to describe and name some solids, liquids and gases. - Know that collectively, solids, liquids and gases are called the states of matter. - Be able to identify the state of matter of a material by its physical properties. - Know that materials can exist as solids, liquids or gases. - Understand that the state of a material can be changed. - Know that heating or cooling materials can change their properties. - Know that heating a solid can change it to a liquid and that this process is called melting. - Know that heating a liquid can change it to a gas and that this process is called evaporation. 	<ul style="list-style-type: none"> -use understanding of properties to explain everyday uses of materials, for example, how bricks, wood, glass and metals are used in buildings -explain what dissolving means, giving examples -name equipment used for filtering and sieving -use knowledge of liquids, gases and solids to suggest how materials can be recovered from solutions or mixtures by evaporation, filtering or sieving. - describe some simple reversible and non-reversible changes to materials, giving examples. - create a chart or table grouping/comparing everyday materials by different properties -use test evidence gathered about different properties to suggest an appropriate material for a particular purpose. 	<ul style="list-style-type: none"> - -
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		<ul style="list-style-type: none">- Know that cooling a gas can change it to a liquid and that this process is called condensation.- Know that cooling a liquid can change it to a solid and that this process can be called freezing (or solidification).- Understand that melting and freezing are processes that can be reversed.- Know that temperature is a measure of how hot or cold something is and is measured in degrees Celsius using a thermometer (°C).- Know that water exists in three states and changes from one to another at different temperatures.- Recognise that not every substance needs to be put in a cold place to become solid, e.g., melted wax, and that not every substance will become solid in a commercial freezer but that different substances change state at different temperatures.- Know that evaporation and	<ul style="list-style-type: none">- group solids based on their observations when mixing them with water- give reasons for choice of equipment and methods to separate a given solution or mixture such as salt or sand in water-explain the results from their investigations	
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		<p>condensation are changes of state.</p> <ul style="list-style-type: none"> - Recognise that changes of state require changes of temperature. - Understand that evaporation is the process in which liquid water is changed to water vapour by heating. – Understand that condensation is the reverse of evaporation and is the process in which water vapour in the air is cooled down to form liquid water. - Be able to describe the changes of state in the water cycle. 		
	Key vocabulary	Key vocabulary Solid, liquid, gas, state change, melting, freezing, melting point, boiling point, evaporation, temperature, water cycle	Key vocabulary Thermal/electrical insulator/conductor, change of state, mixture, dissolve, solution, soluble, insoluble, filter, sieve, reversible/non-reversible change, burning, rusting, new material	Key vocabulary
Rocks	National Curriculum Compare and group together different kinds of rocks on the	National Curriculum This is not part of the Y4 curriculum.	National Curriculum This is not part of the Y5 curriculum.	National Curriculum This is not part of the Y6 curriculum.



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	<p>basis of their appearance and simple physical properties.</p> <ul style="list-style-type: none"> - Describe in simple terms how fossils are formed when things that have lived are trapped within rock. - Recognise that soils are made from rocks and organic matter 			
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	<p>Know that there are different types of rock.</p> <ul style="list-style-type: none"> - Understand that different rocks have different observable features, e.g., colour - Understand that different rocks have different physical properties. - Be able to describe some properties of rocks, e.g., hardness. - Be able to compare and contrast the properties of different rocks. - Identify different rocks using research or by comparing to samples. - Know that rocks now cover the Earth, but they haven't always been there. 			



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	<ul style="list-style-type: none"> - Know that different rocks were formed in different ways. - Be able to describe how sedimentary rock is formed. - Know that a fossil is the remains of a once living thing that has long since died and been preserved and changed in sedimentary rock as the rock formed. - Know that over time rocks can be broken down into smaller pieces by processes such as weathering. - Understand that soil contains small parts of rocks. - Understand that soil contains rotting organic matter. - Recognise that there are different types of soil. 			
	<p>Key vocabulary Rock, stone, pebble, boulder, grain, crystals, layers, hard, soft, texture, absorb water, soil, fossil, marble, chalk, granite, sandstone, slate, soil, peat, sandy/chalk/clay soil</p>	<p>Key vocabulary:</p>	<p>Key Vocabulary:</p>	<p>Key Vocabulary:</p>



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Light	<p>National Curriculum:</p> <ul style="list-style-type: none"> - Recognise that they need light in order to see things and that dark is the absence of light. - Notice that light is reflected from surfaces. - Recognise that light from the sun can be dangerous and that there are ways to protect their eyes. - Recognise that shadows are formed when the light from a light source is blocked by an opaque object. - Find patterns in the way that the size of shadows change. 	<p>This is not a part of the Y4 National Curriculum.</p>	<p>National Curriculum</p> <p>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. (Y5 - Properties and changes of materials)</p>	<p>National Curriculum</p> <ul style="list-style-type: none"> -Recognise that light appears to travel in straight lines. -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. - 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. -Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. 	
	<p>Old Buckenham Primary School & Nursery</p>				<p>Old Buckenham Primary School & Nursery</p>
	<p>Experience darkness and light.</p> <ul style="list-style-type: none"> - Know that light comes from a source - Recognise that shiny objects can reflect light. - Distinguish between light sources and light reflectors. 				<p>Can describe, with diagrams or models as appropriate, how light travels in straight lines either from sources or reflected from other objects into our eyes</p>



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	<ul style="list-style-type: none">- Know that the Sun is a powerful source of light- Understand that some powerful sources of light, such as the Sun, can cause damage to our eyes.- Know that they should not look directly at the Sun, even when wearing dark glasses.- Know that some materials block light.- Understand that when light from a source is blocked a shadow can form.- Know that shadows are similar in shape to the objects forming them.- Know that shadows can be formed when opaque objects block light.- Be able to sort materials into transparent, translucent and opaque.- Recognise that shadows are formed when the light from a light source is blocked by a solid object- Make and record observations and measurements of shadows.			<ul style="list-style-type: none">• Can describe, with diagrams or models as appropriate, how light travels in straight lines past translucent or opaque objects to form a shadow of the same shapeCan explain how evidence from enquiries shows that light travels in straight lines.Can predict and explain, with diagrams or models as appropriate, how the path of light rays can be directed by reflection to be seen, e.g. the reflection in car rear view mirrors or in a periscope.Can predict and explain, with diagrams or models as appropriate, how the shape of shadows can be varied.
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	<p>Key vocabulary Light, light source, dark, absence of light, transparent, translucent, opaque, shiny, matt, surface, shadow, reflect, mirror, sunlight, dangerous</p>			straight lines, light rays
Sound	<p>National Curriculum: - Sound is not an area of study for the Year 3 National Curriculum</p>	<p>National Curriculum: Identify how sounds are made, associating some of them with something vibrating. - Recognise that vibrations from sounds travel through a medium to the ear - Find patterns between the pitch of a sound and features of the object that produced it. - Find patterns between the volume of a sound and the strength of the vibrations that produced it. - Recognise that sounds get fainter as the distance from the sound source increases.</p> <p>OBPSN Identify a variety of sounds. - Know that sounds come from a source. - Recognise that sounds can be classified in different ways, e.g.,</p>	Sound is not an area of study for the Year 3 National Curriculum	Sound is not an area of study for the Year 3 National Curriculum



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		<p>loud, quiet, high, low. - Understand the term 'vibrate' (to move very quickly from side to side). - Understand and identify that all sounds are made by something vibrating. - Know that we hear with our ears. - Know that sounds can travel. - Know that sound can travel through solids, liquids and gases. - Know that the highness or lowness of a sound is called the pitch of the sound. - Recognise that there is high- and low-pitched sounds. - Understand that the pitch of sounds can be changed. - Identify features of an object that can be changed to alter its pitch, e.g., length of tube, length of string, tension of string. - Know that volume refers to how loud a sound is. - Know that the volume of sounds can be changed.</p>		
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		<ul style="list-style-type: none"> - Know that the volume of sounds can be measured with a sound meter (data logger) - Know that the unit of measurement of volume is a decibel (dB) - Know that sounds can travel from a source 		
		<p>Key Vocabulary Sound, source, vibrate, vibration, travel, pitch (high, low), volume, faint, loud, insulation</p>		
Forces	<p>National Curriculum:</p> <ul style="list-style-type: none"> - Compare how things move on different surfaces. - Notice that some forces need contact between two objects, but magnetic forces can act at a distance. - Observe how magnets attract or repel each other and attract some materials and not others. - 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. 	<p>National Curriculum: - Forces and Magnets is not an area of study for the Year 4 National Curriculum</p>	<p>National Curriculum</p> <p>Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object.</p> <ul style="list-style-type: none"> -Identify the effects of air resistance, water resistance and friction that act between moving surfaces. - Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. 	<p>National Curriculum: - Forces and Magnets is not an area of study for the Year 6 National Curriculum</p>



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	<ul style="list-style-type: none"> - Describe magnets as having two poles. - Predict whether two magnets will attract or repel each other, depending on which poles are facing. 			
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Working scientifically	Year 1 and 2	Year 3 and 4	Year 5 and 6
<ul style="list-style-type: none"> a. Asking questions and recognising that they can be answered in different ways b. Making observations and taking measurements c. Engaging in practical enquiry to answer questions d. Recording and presenting evidence e. Answering questions and concluding f. Evaluating and raising further questions and predictions g. Communicating their findings <p>In EYFS, while children are playing and exploring, teachers should be modelling, encouraging and</p>	<p>a. Asking simple questions and recognising that they can be answered in different ways</p> <ul style="list-style-type: none"> • While exploring the world, the children develop their ability to ask questions (such as what something is, how things are similar and different, the ways things work, which alternative is better, how things change and how they happen). Where appropriate, they answer these questions. • The children answer questions developed with the teacher often through a scenario. • The children are involved in planning how to use resources provided to answer the questions using different types of enquiry, helping them to recognise 	<p>a. Asking relevant questions and using different types of scientific enquiries to answer them</p> <ul style="list-style-type: none"> • The children consider their prior knowledge when asking questions. They independently use a range of question stems. Where appropriate, they answer these questions. • The children answer questions posed by the teacher. • Given a range of resources, the children decide for themselves how to gather evidence to answer the question. They recognise when secondary sources can be used to answer questions that cannot be answered through practical work. They identify the type of enquiry that they have chosen to answer their question. 	<p>a. Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <ul style="list-style-type: none"> • Children independently ask scientific questions. This may be stimulated by a scientific experience or involve asking further questions based on their developed understanding following an enquiry. • Given a wide range of resources the children decide for themselves how to gather evidence to answer a scientific question. They choose a type of enquiry to carry out and justify their choice. They recognise how secondary sources can be used to answer questions that cannot be answered through practical work.



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<p>supporting them to do the following:</p> <ul style="list-style-type: none"> • show curiosity and ask questions • make observations using their senses and simple equipment • make direct comparisons • use equipment to measure • record their observations by drawing, taking photographs, using sorting rings or boxes and, in Reception, on simple tick sheets • use their observations to help them to answer their questions • talk about what they are doing and have found out • identify, sort and group 	<p>that there are different ways in which questions can be answered.</p> <p>b. Observing closely, using simple equipment</p> <ul style="list-style-type: none"> • Children explore the world around them. They make careful observations to support identification, comparison and noticing change. They use appropriate senses, aided by equipment such as magnifying glasses or digital microscopes, to make their observations. • They begin to take measurements, initially by comparisons, then using non-standard units. <p>c. Performing simple tests</p> <ul style="list-style-type: none"> • The children use practical resources provided to gather evidence to answer questions generated by themselves or the teacher. They carry out: tests to classify; comparative tests; pattern seeking enquiries; and make observations over time. Identifying and classifying • Children use their observations and testing to compare objects, materials and living things. They 	<p>b. Making systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p> <ul style="list-style-type: none"> • The children make systematic and careful observations. • They use a range of equipment for measuring length, time, temperature and capacity. They use standard units for their measurements. <p>c. Setting up simple practical enquiries, comparative and fair tests</p> <ul style="list-style-type: none"> • The children select from a range of practical resources to gather evidence to answer questions generated by themselves or the teacher. • They follow their plan to carry out: observations and tests to classify; comparative and simple fair tests; observations over time; and pattern seeking. <p>d. Gathering, recording, classifying and presenting data in a variety of ways to help in answering questions</p>	<p>b. Taking measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <ul style="list-style-type: none"> • The children select measuring equipment to give the most precise results e.g. ruler, tape measure or trundle wheel, force meter with a suitable scale. • During an enquiry, they make decisions e.g. whether they need to: take repeat readings (fair testing); increase the sample size (pattern seeking); adjust the observation period and frequency (observing over time); or check further secondary sources (researching); in order to get accurate data (closer to the true value) <p>c. Planning different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <ul style="list-style-type: none"> • The children select from a range of practical resources to gather evidence to answer their questions. They carry out fair tests, recognising
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	<p>sort and group these things, identifying their own criteria for sorting.</p> <ul style="list-style-type: none"> • They use simple secondary sources (such as identification sheets) to name living things. They describe the characteristics they used to identify a living thing. <p>d. Gathering and recording data to help in answering questions</p> <ul style="list-style-type: none"> • The children record their observations e.g. using photographs, videos, drawings, labelled diagrams or in writing. • They record their measurements e.g. using prepared tables, pictograms, tally charts and block graphs. • They classify using simple prepared tables and sorting rings. <p>e. Using their observations and ideas to suggest answers to questions</p> <ul style="list-style-type: none"> • Children use their experiences of the world around them to suggest appropriate answers to questions. They are supported to relate these to their evidence e.g. observations they have made, measurements they have taken or information they 	<p>Recording findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p> <ul style="list-style-type: none"> • The children sometimes decide how to record and present evidence. They record their observation e.g. using photographs, videos, pictures, labelled diagrams or writing. They record their measurements e.g. using tables, tally charts and bar charts (given templates, if required, to which they can add headings). They record classifications e.g. using tables, Venn diagrams, Carroll diagrams. • Children are supported to present the same data in different ways in order to help with answering the question. <p>e. Using straightforward scientific evidence to answer questions or to support their findings</p> <ul style="list-style-type: none"> • Children answer their own and others' questions based on observations they have made, measurements they have taken or information they have gained from 	<p>and controlling variables. They decide what observations or measurements to make over time and for how long. They look for patterns and relationships using a suitable sample.</p> <p>d. Recording data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <ul style="list-style-type: none"> • The children decide how to record and present evidence. They record observations e.g. using annotated photographs, videos, labelled diagrams, observational drawings, labelled scientific diagrams or writing. They record measurements e.g. using tables, tally charts, bar charts, line graphs and scatter graphs. They record classifications e.g. using tables, Venn diagrams, Carroll diagrams and classification keys. • Children present the same data in different ways in order to help with answering the question
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	<p>have gained from secondary sources.</p> <p>Using their observations and ideas to suggest answers to questions</p> <ul style="list-style-type: none"> • The children recognise 'biggest and smallest', 'best and worst' etc. from their data. 	<p>secondary sources. The answers are consistent with the evidence.</p> <p>Identifying differences, similarities or changes related to simple scientific ideas and processes</p> <ul style="list-style-type: none"> • Children interpret their data to generate simple comparative statements based on their evidence. <p>They begin to identify naturally occurring patterns and causal relationships. Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</p> <ul style="list-style-type: none"> • They draw conclusions based on their evidence and current subject knowledge. <p>f. Using results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</p> <ul style="list-style-type: none"> • They identify ways in which they adapted their method as they progressed or how they would do it differently if they repeated the enquiry. <p>Using results to draw simple conclusions, make predictions for</p>	<p>e. Identifying scientific evidence that has been used to support or refute ideas or arguments</p> <ul style="list-style-type: none"> • Children answer their own and others' questions based on observations they have made, measurements they have taken or information they have gained from secondary sources. When doing this, they discuss whether other evidence e.g. from other groups, secondary sources and their scientific understanding, supports or refutes their answer. • They talk about how their scientific ideas change due to new evidence that they have gathered. • They talk about how new discoveries change scientific understanding. <p>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</p> <ul style="list-style-type: none"> • In their conclusions, children: identify causal relationships and
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		<p>new values, suggest improvements and raise further questions • They identify ways in which they adapted their method as they progressed or how they would do it differently if they repeated the enquiry.</p> <p>g. Reporting on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</p> <ul style="list-style-type: none">• They communicate their findings to an audience both orally and in writing, using appropriate scientific vocabulary.	<p>patterns in the natural world from their evidence; identify results that do not fit the overall pattern; and explain their findings using their subject knowledge</p> <p>f. 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</p> <ul style="list-style-type: none">• They evaluate, for example, the choice of method used, the control of variables, the precision and accuracy of measurements and the credibility of secondary sources used.• They identify any limitations that reduce the trust they have in their data. <p>Using test results to make predictions to set up further comparative and fair tests</p> <ul style="list-style-type: none">• Children use the scientific knowledge gained from enquiry work to make predictions they can investigate using comparative and fair tests
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			<p>g. 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</p> <ul style="list-style-type: none">• They communicate their findings to an audience using relevant scientific language and illustrations
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