

Northgate Primary School: Science Progression Planning



“All of science is nothing more than the refinement of everyday thinking.” Albert Einstein

Intent:

It is our intention for our pupils to recognise the importance of Science in everyday life. We intend to foster the natural curiosity of our children and provide them with the skills to become enquiry-based learners.

- To develop their sense of belonging through collaborative activity and teamwork. To understand and appreciate the natural processes in the world they belong to and encourage respect for other living organisms.
- To develop confidence in communicating through our emphasis on promoting questioning skills and the use of scientific vocabulary.
- To develop a resilient attitude through having the confidence to express their ideas, make predictions, and accept that things won't always turn out the way we plan or expect when following lines of enquiry.

Progression in Knowledge by Scientific Area (Key vocabulary is recorded at the bottom of each section)

| Area of Science | EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| <p>Living things and their Habitats</p> <p>(Biology)</p> | | | <p>Living things and their habitats Explore and compare the differences between things that are living, dead, and things that have never been alive.</p> <p>Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other</p> <p>Identify and name a variety of plants and animals in their habitats, including micro-habitats.</p> | | <p>Living things and their habitats Recognise that living things can be grouped in a variety of ways.</p> <p>Explore and use classification keys to help group, identify and 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>Living things and their habitats Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.</p> <p>Describe the life processes of reproduction in some plants and animals.</p> <p><i>Life cycle, reproduce, sexual, asexual, germination, pollination, seed, seed dispersal, pollen, stamen,</i></p> | <p>Living things and their habitats Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals.</p> <p>Give reasons for classifying plants and animals based on specific characteristics.</p> |

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| | | | <p>Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food.</p> <p>Living, dead, never been alive, suited, suitable, basic needs, food chain, shelter, move, feed</p> <p>Names of local habitats: pond, woodland, field etc.</p> <p>Names of micro-habitats: under logs, in bushes etc.</p> | | <p>Classification, classification key, environment, habitat, human impact, positive, negative, migrate, hibernate, fish, amphibian, reptile, bird, mammal, vertebrate, invertebrate, shelter, food, protection</p> | <p>stigma, sperm, fertilizes, egg, live young, metamorphosis, plantlets, runners, bulbs, cuttings</p> | <p>Organism, micro-organism, vertebrate, fungus, bacteria, virus, fish, amphibian, reptile, bird, mammal, invertebrates, insect, spider, arachnid, mollusc, crustacean, snails, worms, flowering, non-flowering, environment.</p> |
| <p>Plants (Biology)</p> | <p>Explore the natural world making observations of plants (Understanding the World: The Natural World)</p> | <p>Plants Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees.</p> <p>Identify and describe the basic structure of a variety of common flowering plants, including trees.</p> <p>Leaf, leaves, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud (Names of trees in the local areas) (Names of garden and wild flowering plants in the local area)</p> | <p>Plants Observe and describe how seeds and bulbs grow into mature plants.</p> <p>Find out and describe how plants need water, light, and a suitable temperature to grow and stay healthy.</p> <p>(See Y1) Seed, bulb, water, light, shade, sun, temperature, warm, cool, water, damp, wet, dry, soil, grow, healthy</p> | <p>Plants Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves, flowers.</p> <p>Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, room to grow) and how they vary from plant to plant. Investigate the way in which water is transported within plants.</p> <p>Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal.</p> | | | |

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| | | | | Growth, part, role, air, nutrients, fertiliser, photosynthesis, pollen, insect/wind pollination, seed formation, life cycle, transported, seed dispersal: wind dispersal, animal dispersal, water dispersal | | | |
| Animals, including humans (Biology) | Explore the natural world making observations of animals (Understanding the World: The Natural World) | Animals, including humans Identify and name a range of common animals, including fish, amphibians, reptiles, birds and mammals. Identify and name a variety of animals that are carnivores, herbivores and omnivores. Describe and compare the structure of a variety of common animals. Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. Head, body, eyes, ears, mouth, teeth, leg, tail, wing, claw, fin, scales, feathers, | Animals, including humans Notice that animals, including humans, have offspring which grow into adults. Find out about and describe the basic needs of animals, including humans, for survival (water, food and air). Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. Offspring, reproduction, growth, child, young/old stages (eg. chick/hen, baby/child/adult), exercise, heartbeat, breathing, hygiene, germs, disease, food types: meat, fish, vegetables, bread, rice, pasta | Animals, including humans Identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food – they get their nutrition from what they eat. Identify that humans and some other animals have skeletons and muscles for support, protection and movement. Nutrition, nutrients, food types, balanced diet, carbohydrates, sugars, protein, dairy food, fruit and vegetables, vitamins, minerals, fibre, fat, water, skeleton, bones, muscles, joints, socket, tendon, support, protect, move, skull, ribs, spine, vertebrate, invertebrate | Animals, including humans 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. Construct and interpret a variety of food chains, identifying producers, predators and prey. Digestive system, digestion, (nutrition, nutrients) mouth, teeth, saliva, tongue, oesophagus, stomach, small intestine, large intestine, rectum, anus, | Animals, including humans Describe the changes as humans develop to old age Growth, development, stages, embryo, foetus, uterus, womb, vagina, ovaries, gestation period, life cycle, baby, child, adolescent, adult, senior, elderly, puberty, penis, menstruation, periods, hormones, testicles, pubic hair, mental health | Animals, including humans Identify the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood. Recognise the impact of diet, exercise, drugs and lifestyle on the ways their bodies function. Describe the ways in which nutrients and water are transported within animals, including humans. Heart, pulse, rate, pumps, blood, blood vessels, artery, capillary, vein, pump, transported, lungs, oxygen, carbon dioxide, nutrients, water, muscles, cycle, circulatory |

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| | | <p>fur, beak, paws, hooves (Names of animals from each vertebrate group)</p> <p>Senses: touch, see, smell, taste, hear, fingers, skin, eyes, nose, ears, tongue</p> | | | <p>Teeth: incisor, canine, molar, premolar, rip, tear, chew, grind, cut</p> <p>Herbivore, carnivore, omnivore, producer, consumer, predator, prey, food chain</p> | | <p>system, diet, exercise, drugs, lifestyle</p> |
| <p>Rocks, fossils and evolution</p> <p>(Chemistry)</p> <p>(Biology)</p> | | | | <p>Rocks Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties.</p> <p>Describe in simple terms how fossils are formed when things that have lived are trapped within rock.</p> <p>Recognise that soils are made from rocks and organic matter.</p> <p>Rock, stone, pebble, boulder, grain, crystals, layers, hard, soft, light, smooth, texture, absorb water, permeable, impermeable, soil, fossil, marble, chalk, granite, sandstone, slate, soil, peat, sandy/chalk/clay soil, sedimentary, igneous, metamorphic</p> | | | <p>Evolution and inheritance Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago.</p> <p>Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents.</p> <p>Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution.</p> <p>Offspring, sexual reproduction, vary, variation, characteristics, suited, adapted,</p> |

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| | | | | | | | adaptation, environment, inherit, inheritance, species, fossils, evolution |
| <p>Materials, their properties and changing materials States of matter.</p> <p>(Chemistry)</p> | <p>Understand some important processes and changes in the natural world around them, including changing states of matter. (Understanding the World: The Natural World)</p> | <p>Everyday materials Distinguish between an object and the material from which it is made.</p> <p>Identify and name a variety of everyday materials, including wood, plastic, glass, metal. Water, rock.</p> <p>Compare and group together a variety of everyday materials on the basis of their simple physical properties.</p> <p>Object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/cardboard, rubber, wool,</p> <p>Properties of materials: hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/tears, rough, smooth, shiny, dull, see-through, not see-through</p> | <p>Uses of 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.</p> <p>Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching.</p> <p>Materials: wood, metal, plastic, glass, brick, rock, paper, cardboard, fabric</p> <p>Properties of materials: (Please also see Y1) opaque, transparent and translucent, reflective, non-reflective, flexible, rigid</p> | | <p>States of Matter Compare and group materials together, according to whether they are solids, liquids or gases.</p> <p>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.</p> <p>Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature.</p> <p>State, matter, solid, liquid, gas, air, oxygen, ice, water, water vapour, steam, heated, cooled, degrees Celsius, state change, melting, freezing, melting point, boiling point, freezing point, solidify, evaporate, evaporation, condense, condensation,</p> | <p>Properties and changes of materials 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.</p> <p>Know that some materials will dissolve in liquid to form a solution and describe how to recover a substance from a solution.</p> <p>Use knowledge of solids, liquids and gases to describe how mixtures might be separated, including through filtering, sieving and evaporating.</p> <p>Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.</p> | |

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| | | | | | <p>temperature, water cycle, precipitation, infiltration</p> <p>Demonstrate that dissolving, mixing and changes of state are reversible changes.</p> <p>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.</p> <p>Thermal/electrical insulator/conductor , conductivity, change of state, solid, liquid, gas, mixture, particle, dissolve, solution, soluble, insoluble, solubility, mixture, filter, sieve, reversible/non-reversible change, burning, residue, rusting, new material, transparent, opaque, translucent, elastic, rigid, flexible, waterproof, absorbent.</p> | |
| <p>Light and Sound</p> <p>(Physics)</p> | | | | <p>Light</p> <p>Recognise that they need light in order to see things, and that</p> | <p>Sound</p> <p>Identify how sounds are made, associating some of them with</p> | <p>Light</p> <p>Recognise that light appears to travel in straight lines.</p> |

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| | | | | <p>dark is the absence of light.</p> <p>Notice that light is reflected from surfaces.</p> <p>Recognise that light from the sun can be dangerous and that there are ways to protect their eyes.</p> <p>Recognise that shadows are formed when the light from a light source is blocked by an opaque object.</p> <p>Find patterns in the way that the size of shadows change.</p> <p>Sun, light, light source, torch, lamp, flames, light bulb, rays, dark, darkness, absence of light, transparent, translucent, opaque, shiny, matt, surface, shadow, block, direction, reflect, reflective, mirror, sunlight, dangerous</p> | <p>something vibrating.</p> <p>Recognise that vibrations from sounds travel through a medium to the ear.</p> <p>Find patterns between the pitch of a sound and features of the object that produced it.</p> <p>Find patterns between the volume of a sound and the strength of the vibrations that produced it.</p> <p>Recognise that sounds get fainter as the distance from the sound source increases.</p> <p>Sound, source, noise, vibrate, vibration, travel, solid, liquid, gas, pitch (high, low), volume, loud, quiet, faint, loud, insulation, instrument, percussion, strings, brass, woodwind, tune</p> | | <p>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.</p> <p>Explain that we see things because light travels from light sources to our eyes from or from light sources to objects and then to our eyes.</p> <p>Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them.</p> <p>Light source, straight lines, light rays, reflect, reflective, mirror, shadow, block, absorb, direct, direction, transparent, translucent, opaque.</p> |
| <p>Forces</p> <p>(Physics)</p> | | | | <p>Forces and magnets</p> <p>Compare how things move on different surfaces.</p> <p>Notice that some forces need contact between</p> | | <p>Forces</p> <p>Explain that unsupported objects fall towards the Earth because of the force of</p> | |


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| | | | | <p>two objects, but magnetic forces can act at a distance.</p> <p>Observe how magnets attract or repel each other and attract some materials and not others.</p> <p>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> <p>Describe magnets as having two poles.</p> <p>Predict whether two magnets will attract or repel each other, depending on which poles are facing.</p> <p>Force, push, pull, twist, contact force, friction, magnetic force, magnet, strength, bar/ring/button/horseshow magnet, attract, repel, magnetic/non-magnetic material, metal, iron, steel, poles, north pole, south pole.</p> | | <p>gravity acting between the Earth and the falling object,</p> <p>Identify the effects of air resistance, water resistance and friction that act between moving surfaces.</p> <p>Recognise that some mechanisms. Including levers, pulleys and gears, allow a smaller force to have a greater effect.</p> <p>Force, gravity, Earth, mass, weight, Newton, air resistance, water resistance, upthrust, friction, moving surface, mechanism, simple machines, lever, pulley, gear, force meter</p> | |
| <p>Seasonal changes, the Earth and Space</p> <p>(Physics)</p> | <p>Understand some important processes and changes in the natural world around them, including the seasons.</p> <p>Know some similarities and differences between the natural world</p> | <p>Seasonal Changes</p> <p>Observe changes across the four seasons.</p> <p>Observe and describe weather associated with the seasons and how day length varies.</p> | | | | <p>Earth and Space</p> <p>Describe the movement of the Earth, and other planets relative to the Sun in the solar system.</p> <p>Describe the movement of the Moon relative to the Earth.</p> | |



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| | around them and contrasting environments (Understanding the World: The Natural World) | <p>Weather: sunny, rainy, windy, snowy, frosty, foggy, misty, cloudy, cold, chilly, warm, hot</p> <p>Seasons: spring, summer, autumn, winter</p> <p>Sun, sunrise, sunset, dark, day length</p> | | | | <p>Describe the Sun, Earth and Moon as approximately spherical bodies.</p> <p>Use the idea of the Earth's rotation to explain day and night and the apparent movement of the Sun across the sky.</p> <p>Earth, Sun, Moon, planet, solar system, celestial body, Mercury, Jupiter, Saturn, Venus, Mars, Uranus, Neptune, Pluto, 'dwarf' planet, spherical, solar system, rotate, rotation, star, orbit, revolve</p> | |
| Electricity (Physics) | | | | | <p>Electricity Identify common appliances that run on electricity.</p> <p>Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers.</p> <p>Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is a complete loop with a battery.</p> | <p>Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in a circuit.</p> <p>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.</p> | Electricity |

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| | | | | | <p>Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit.</p> <p>Recognise some common conductors and insulators, and associate metals with being good conductors.</p> <p>Electricity, electrical appliance/device, mains, plug, electrical circuit, complete circuit, component, cell, battery, positive, negative, connect, connection, loose connection, short circuit, wire, crocodile clip, bulb, bright, dim, switch, buzzer, motor, conductor, insulator, metal, non-metal, symbol.</p> | | <p>Use recognised symbols when representing a simple circuit in a diagram.</p> <p>Circuit, complete circuit, circuit diagram, circuit symbol, component, cell, battery, positive, negative, terminal, connection, bulb, buzzer, motor, switch, voltage, current, resistance, conductor, insulator</p> <p>('cell' and 'battery' are used interchangeably)</p> |
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Progression in Scientific Enquiry (Enquiry skill symbols created by PSTT)




The five different types of scientific enquiry are recorded in capitalisation within these skills.

| Enquiry Skill | EYFS | Year 1 | Year 2 | Year 3 | Year 4 | Year 5 | Year 6 |
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| <p>Asking questions</p>  | <p>Show curiosity about objects and events. (CoL: Playing and Exploring)</p> <p>Listen attentively and respond with relevant questions... during whole class discussions and small group interactions. (Communication and Language: Listening,</p> | <p>Explore the world around them and ask their own simple questions related to a topic.</p> | <p>Look more closely at the natural and humanly-constructed world around them and ask questions about what they notice. Ask teachers and visitors scientific questions to find out further information related to a topic.</p> | <p>Begin to raise their own relevant scientific questions about the world around them.</p> | <p>Raise their own relevant scientific questions.</p> | <p>Begin to use their science experiences to explore ideas and raise different kinds of questions.</p> | <p>Use their scientific experiences to explore ideas and raise different kinds of questions.</p> |

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| | <p>Attention and Understanding)</p> <p>Make comments about what they have heard and ask questions to clarify their understanding. (Communication and Language: Listening, Attention and Understanding)</p> | | | | | | |
| <p>Making Predictions</p>  | <p>Participate in small group, class and one-to-one discussions, offering their own ideas (Communication and Language: Speaking)</p> <p>Offer explanations for why things might happen, making use of recently introduced vocabulary (Communication and Language: Speaking)</p> | <p>With support, begin to notice patterns and relationships to support predictions.</p> | <p>Begin to notice patterns and relationships to support predictions.</p> | <p>With support, begin to make predictions for new values within or beyond data they have collected within an investigation.</p> | <p>Make predictions for new values within or beyond data they have collected within an investigation.</p> | <p>Begin to use the results of comparative and fair tests to inform their predictions.</p> | <p>Use the results of comparative and fair tests to make predictions to set up further comparative and fair tests.</p> |
| <p>Setting up tests: COMPARATIVE AND FAIR TESTING</p>  | <p>Test their ideas (CoL: Creating and Thinking Critically)</p> | <p>Experience different types of science enquiries, with the emphasis upon first-hand practical activities.</p> <p>Carry out simple tests with adult direction.</p> | <p>Begin to recognise different ways in which they might answer scientific questions.</p> <p>Carry out simple tests with increasing independence.</p> | <p>With adult guidance as necessary, start to make decisions about the most appropriate type of scientific enquiry to answer a question.</p> <p>Set up simple practical enquiries, comparative and fair tests.</p> | <p>Start to make their own decisions about the most appropriate type of scientific enquiry they might use to answer questions.</p> <p>Recognise when a simple fair test is necessary and help to decide how to set it up.</p> | <p>With some support, select and plan the most appropriate type of scientific enquiry to use to answer scientific questions.</p> <p>Recognise when and how to set up comparative and fair tests and explain which variables need to be controlled.</p> | <p>Select and plan the most appropriate type of scientific enquiry to use to answer scientific questions.</p> <p>Recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why.</p> |

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| RESEARCH USING SECONDARY SOURCES | Ask teachers and visitors questions to find out more information. | With support, use simple secondary sources (non-fiction books, powerpoint presentations, videos, visitors) to find answers to questions. | Use simple secondary sources (fact sheets, non-fiction books, powerpoint presentations, videos, visitors) to find answers to questions. | Understand that some questions cannot be answered through practical investigations. Begin to identify when secondary sources need to be used to answer questions. | Recognise when and how secondary sources might help them to answer questions that cannot be answered through practical investigations. | Begin to think about which secondary sources will be most useful to research their ideas. With guidance, start to distinguish between opinion and fact. Begin to identify scientific evidence that has been used to support or refute ideas or arguments | Recognise which secondary sources will be most useful to research their ideas and begin to separate opinion from fact. Talk about how scientific ideas have developed over time. Identify scientific evidence that has been used to support or refute ideas or arguments. |
| Observing and Measuring: IDENTIFYING, CLASSIFYING AND GROUPING | Use senses to explore the world around them (CoL: Playing and Exploring) Pay attention to details (CoL: Active Learning) | Use simple features to compare objects, materials and living things and, with help, decide how to sort and group them | Use simple features to compare objects, materials and living things and decide how to sort and group them | Talk about criteria for grouping, sorting and classifying; and begin to use simple keys. | Talk about criteria for grouping, sorting and classifying. Use simple keys. | Begin to use and develop keys and other information records to identify, classify and describe living things and materials, and identify patterns that might be found | Use and develop keys and other information records to identify, classify and describe living things and materials, and identify patterns that might be found in the natural environment. |

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|  | Develop ideas of grouping.. (CoL: Creating and Thinking Critically) | | | | | in the natural environment. | |
| Observing and Measuring: Taking measurements  | Use simple non-standard units of measure | Use simple measurements and equipment to gather data eg. Hand lenses, egg timers, non-standard units, rulers | Use simple measurements and equipment to gather data eg. Stop watches and digital timers, rulers | With guidance, take accurate measurements using standard units. Learn how to use thermometers accurately. | Take accurate measurements using standard units. Use a range of equipment including thermometers and data loggers. | With some support, choose the most appropriate equipment to make measurements with increasing precision and explain how to use it accurately. | Choose the most appropriate equipment to make measurements with increasing precision and explain how to use it accurately. Take repeat measurements where appropriate. |
| Observing and Measuring: OBSERVING OVER TIME  | Show an awareness of changes over time related to their growth and seasonal changes in the outside world. | Observe closely using simple equipment. With help, observe changes over time. | Observe closely using simple equipment accurately. Observe changes over time. | With support, make systematic and careful observations. 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. | Make systematic and careful observations. Help to make decisions about what observations to make, how long to make them for and the type of simple equipment is necessary. | Start to make their own decisions about what observations to make, what measurements to use and how long to make them for. | Make their own decisions about what observations to make, what measurements to use and how long to make them for. |
| Recording Data  | To be involved in recording data as a group using simple tables and pictograms/ bar charts. | To record data in simple table templates | To record data in different ways directed by class teacher. | With guidance, collect and record data from their own observations and measurements in a variety of ways: notes, bar charts and tables, standard units, drawings, labelled diagrams, keys. | Collect and record data from their own observations and measurements in a variety of ways: notes, bar charts and tables, standard units, drawings, labelled diagrams, keys, and help to make decisions about how to analyse this data. | With guidance, decide how to record data and results of increasing complexity from a choice of familiar approaches: scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. | Decide how to record data and results of increasing complexity from a choice of familiar approaches: scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs. |

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| <p>Interpreting and communicating results: PATTERN SEEKING</p>  | <p>Making links and noticing patterns in their experience. (CoL: Creating and Thinking Critically)</p> | <p>With guidance, begin to notice patterns and relationships.</p> | <p>Begin to notice patterns and relationships with more independence.</p> | <p>Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them.</p> <p>With direction, pupils should begin to think about changes, patterns, similarities and differences in their data in order to draw simple conclusions.</p> | <p>Pupils should look for changes, patterns, similarities and differences in their data in order to draw simple conclusions and answer questions.</p> | <p>Identify patterns that might be found in the natural environment.</p> | <p>Confidently identify patterns that might be found in the natural environment.</p> |
| <p>Interpreting and communicating results</p>  | <p>Develop ideas of ... cause and effect. (CoL: Creating and Thinking Critically)</p> | <p>Talk about what they have found out.</p> <p>With help, record and communicate findings in a range of ways. Begin to use simple scientific language.</p> | <p>Talk about what they have found out and <u>how</u> they found it out.</p> <p>Record and communicate their ideas to a range of audiences in a variety of ways. Use simple scientific language.</p> | <p>Use results to draw simple conclusions.</p> <p>Report on findings from enquiries in a variety of ways including oral and written explanations, displays or presentations of results and conclusions.</p> | <p>Use relevant simple scientific language to discuss their ideas and communicate their findings in ways that are appropriate for different audiences, including oral and written explanations, displays or presentations of results and conclusions.</p> | <p>Report and present 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 presentations.</p> <p>Use relevant scientific language to communicate and justify their ideas.</p> | <p>Use relevant scientific language and illustrations to discuss, communicate and justify their scientific ideas. Use oral and written forms such as displays and other presentations to report conclusions, causal relationships and degree of trust in results.</p> |
| <p>Evaluating</p>  | | <p>To be able to say if their investigation was successful or not.</p> | <p>To be able to explain why their investigation was successful or not and start to think about changes that could be made.</p> | <p>With support, begin to identify new questions arising from data, making predictions for new values within or beyond the data they have collected and finding ways of improving what they have already done.</p> | <p>With support, identify new questions arising from data, making predictions for new values within or beyond the data they have collected and finding ways of improving what they have already done.</p> | <p>With some guidance, use their results to make predictions and identify when further observations, comparative and fair tests might be needed.</p> | <p>Use their results to make predictions and identify when further observations, comparative and fair tests might be needed.</p> |

