



Trekenner Community Primary School



Science Progression Map Knowledge and Working Scientifically

EYFS Science at Foundation Stage is covered in the '**Understanding the World**' area of the EYFS Curriculum. It is introduced indirectly through activities that encourage every child to explore, problem solve, observe, predict, think, make decisions and talk about the world around them.

KS1 Curriculum and Expectations

The principal focus of science teaching in key stage 1 is to enable pupils to experience and observe phenomena, looking more closely at the natural and humanly constructed world around them. They should be encouraged to be curious and ask questions about what they notice. They should be helped to develop their understanding of scientific ideas by using different types of scientific enquiry to answer their own questions, including observing changes over a period of time, noticing patterns, grouping and classifying things, carrying out simple comparative tests, and finding things out using secondary sources of information. They should begin to use simple scientific language to talk about what they have found out and communicate their ideas to a range of audiences in a variety of ways. Most of the learning about science should be done through the use of first-hand practical experiences, but there should also be some use of appropriate secondary sources, such as books, photographs and videos.

LKS2 Curriculum and Expectations

The principal focus of science teaching in lower key stage 2 is to enable pupils to broaden their scientific view of the world around them. They should do this through exploring, talking about, testing and developing ideas about everyday phenomena and the relationships between living things and familiar environments, and by beginning to develop their ideas about functions, relationships and interactions. They should ask their own questions about what they observe and make some decisions about which types of scientific enquiry are likely to be the best ways of answering them, including observing changes over time, noticing patterns, grouping and classifying things, carrying out simple comparative and fair tests and finding things out using secondary sources of information. They should draw simple conclusions and use some scientific language, first, to talk about and, later, to write about what they have found out.

UKS2 Curriculum and Expectations

The principal focus of science teaching in upper key stage 2 is to enable pupils to develop a deeper understanding of a wide range of scientific ideas. They should do this through exploring and talking about their ideas; asking their own questions about scientific phenomena; and analysing functions, relationships and interactions more systematically. At upper key stage 2, they should encounter more abstract ideas and begin to recognise how these ideas help them to understand and predict how the world operates. They should also begin to recognise that scientific ideas change and develop over time. They should select the most appropriate ways to answer science questions using different types of scientific enquiry, including observing changes over different periods of time, noticing patterns, grouping and classifying things, carrying out comparative and fair tests and finding things out using a wide range of secondary sources of information. Pupils should draw conclusions based on their data and observations, use evidence to justify their ideas, and use their scientific knowledge and understanding to explain their findings.

	EYFS	Key Stage One	Lower Key Stage Two	Upper Key Stage Two
Plants	<ul style="list-style-type: none"> They make observations of animals and plants and explain why some things occur, and talk about changes 	<ul style="list-style-type: none"> Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees Identify and describe the basic structure of a variety of common flowering plants, including trees Observe and describe how seeds and bulbs grow into mature plants Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy. Understand that plants are important for us to have oxygen and the world to be healthy. 	<ul style="list-style-type: none"> Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves 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 Understand the role of plants within the wider environment and their involvement in climate change. 	<ul style="list-style-type: none"> Consolidate and revise key knowledge on plants from LKS2 and KS1. Make links with learning on evolution and animal adaptations to understand how plants are able to adapt to grow in different environments.
Animals Including Humans	<ul style="list-style-type: none"> They make observations of animals and plants and explain why some things 	<ul style="list-style-type: none"> Identify and name a variety of common animals including fish, amphibians, 	<ul style="list-style-type: none"> 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 	<ul style="list-style-type: none"> Describe the changes as humans develop to old age Identify and name the main parts of the human circulatory system, and describe the functions of the

	<p>occur, and talk about changes</p>	<p>reptiles, birds and mammals</p> <ul style="list-style-type: none"> Identify and name a variety of common animals that are carnivores, herbivores and omnivores Describe and compare the characteristics of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense 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 	<p>what they eat</p> <ul style="list-style-type: none"> Know key types of food such as vegetables, proteins, carbohydrate etc. and the importance of a balanced diet. Identify that humans and some other animals have skeletons and muscles for support, protection and movement Understand why healthy lifestyles are important and the impact they can have e.g. lack of sleep, not enough water. 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. Link this to global learning work on endangered species. 	<p>heart, blood vessels and blood.</p> <ul style="list-style-type: none"> Understand why specific nutrients such as Protein, iron, vitamins etc. are important to for animals including humans and how they make up a balanced diet. Understand the physiological impact of exercise on the body. Understand different types of drugs including recreational drugs, tobacco and alcohol and the impact both long and short term that these have on the body.
<p>Living Things and Their Habitats.</p>	<ul style="list-style-type: none"> They talk about the features of their own immediate environment and how environments might vary from one another Children know about similarities and differences in relation to places, objects, materials and living things 	<ul style="list-style-type: none"> Explore and compare the differences between things that are living, dead, and things that have never been alive. 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 	<ul style="list-style-type: none"> Recognise that living things can be grouped in a variety of ways Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment Recognise that environments can change and that this can sometimes pose dangers to living things <p style="text-align: center;"><u>Evolution and inheritance.</u> <u>(whilst evolution and inheritance is not something that LKS2 need to cover, when exploring fossils...)</u></p> <ul style="list-style-type: none"> Understand that creatures such as dinosaurs and other organisms existed long ago and are now extinct. Understand that fossils have helped scientists to prove the existence of these creatures. 	<ul style="list-style-type: none"> Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird Describe the life process of reproduction in some plants and animals Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals Give reasons for classifying plants and animals based on specific characteristics <p style="text-align: center;"><u>Evolution and inheritance</u></p> <ul style="list-style-type: none"> Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution Understand how the observations of Darwin allowed for the theory of evolution to be developed.

<p>Materials and their properties. (including rocks and states of matter)</p>	<ul style="list-style-type: none"> They know the properties of some materials and can suggest some of the purposes they are used for. 	<ul style="list-style-type: none"> Distinguish between an object and the material from which it is made Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock Describe the simple physical properties of a variety of everyday materials Compare and group together a variety of everyday materials on the basis of their simple physical properties Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching 	<ul style="list-style-type: none"> 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) Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature and other variables. <p style="text-align: center;"><u>Rocks</u></p> <ul style="list-style-type: none"> Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties 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 	<ul style="list-style-type: none"> 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 a solution, and describe how to recover a substance from a solution 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
<p>Light and sound</p>			<p style="text-align: center;"><u>Light</u></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 Understand the terms transparent, opaque and translucent.. <p style="text-align: center;"><u>Sound</u></p> <ul style="list-style-type: none"> 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 style="text-align: center;"><u>Light</u></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 Understand the key components of the eye and how they allow us to see. Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them Understand and describe how light can be altered whilst going through a prism or entering water Consolidate understanding of opaque and transparent and explain the impact they have on light.

<p>Earth and space (including seasons)</p>	<ul style="list-style-type: none"> Looks closely at similarities, differences, patterns and change – in relation to the four seasons and when different weather occurs 	<ul style="list-style-type: none"> Observe changes across the four seasons Observe and describe weather associated with the seasons and how day length varies 	<ul style="list-style-type: none"> Consolidated KS1 understanding of seasons and understand how these change throughout the world (link to geography) Understand how shadows changing through the day relates to the position of the sun in the sky. Understand that the movement of the sun in related to the earth moving on its axis rather than the sun moving its self. Begin to link measures in maths to time and space. 	<ul style="list-style-type: none"> Describe the movement of the Earth and other planets relative to the sun in the solar system including the order of the planets in terms of distance from the sun. Understand and define key celestial objects: A star, a moon, a satellite, a gas giant planet, a rocky planet Identify key properties of planets in the solar system e.g., Venus is the hottest planet, Jupiter is the largest etc. Describe the movement of the moon relative to the Earth and how these impacts on how it is observed from earth. Describe the sun, Earth and moon as approximately spherical bodies and understand evidence which led to this conclusion. Use the idea of the Earth’s rotation to explain day and night and the apparent movement of the sun across the sky. Understand the relational size of our solar system in comparison to the milky way galaxy.
<p>Forces and magnets</p>			<ul style="list-style-type: none"> Compare how things move on different surfaces notice that some forces need contact between 2 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 Describe magnets as having 2 poles Predict whether 2 magnets will attract or repel each other, depending on which poles are facing Know how magnets are used in everyday life and give examples. 	<ul style="list-style-type: none"> Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object 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>Electricity, circuits and conductors.</p>		<p>Know the dangers associated with electricity.</p>	<ul style="list-style-type: none"> Identify common appliances that run on electricity Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit 	<ul style="list-style-type: none"> Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit 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 Use recognised symbols when representing a simple circuit in a diagram Understand how renewable energy and other energy saving strategies in relation to the global context.

			<ul style="list-style-type: none"> Recognise some common conductors and insulators, and associate metals with being good conductors Know how to use electricity responsibly with a view to reducing our carbon footprint. 	
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Working Scientifically

	EYFS	Year 1	Year 2	Year 3	Year 4	Year 5	Year 6
Questioning and enquiring Planning	With prompting, ask a few simple questions about the world around us.	Ask simple questions about the world around us. Begin to recognise that they can be answered in different ways (different types of enquiry including - observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative tests, finding things out from secondary sources).	Ask questions about the world around us. Recognise that they can be answered in different ways (different types of enquiry including - observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative tests, finding things out from secondary sources).	Ask some relevant questions and use different types of scientific enquiries to answer them. Begin to explore everyday phenomena and the relationships between living things and familiar environments. Begin to develop their ideas about functions, relationships and interactions. Begin to raise their own questions about the world around them. Begin to make some decisions about which types of enquiry will be the best way of answering questions including observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative and fair tests , finding things out using secondary sources.	Ask relevant questions and use different types of scientific enquiries to answer them. Explore everyday phenomena and the relationships between living things and familiar environments. Begin to develop their ideas about functions, relationships and interactions. Raise their own questions about the world around them. Make some decisions about which types of enquiry will be the best way of answering questions including observing changes over time, noticing patterns, grouping and classifying, carrying out simple comparative and fair tests , finding things out using secondary sources.	Begin to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Begin to explore and talk about ideas, ask their own questions about scientific phenomena, analyse functions, relationships and interactions more systematically. Begin to recognise some 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. Begin to select the most appropriate ways to answer science questions using different types of scientific enquiry (including observing changes over different periods of time, noticing patterns, grouping and classifying, carrying out comparative and fair tests and finding things out using a wide range of secondary sources of information.)	Plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary. Explore and talk about ideas, ask their own questions about scientific phenomena, analyse functions, relationships and interactions more systematically. Begin to recognise more abstract ideas and begin to recognise how these ideas help them to understand how the world operates. Recognise scientific ideas change and develop over time. Select the most appropriate ways to answer science questions using different types of scientific enquiry (including observing changes over different periods of time, noticing patterns, grouping and classifying, carrying out comparative and fair tests and finding things out using a wide range of secondary sources of information.)
Observing, measuring and pattern seeking	With support, begin to observe	Begin to observe closely, using simple equipment.	Observe closely, using simple equipment.	Begin to make systematic and careful observations and, where appropriate, take accurate measurements using standard	Make systematic and careful observations and, where appropriate, take accurate measurements	Begin to take measurements, using a range of scientific equipment, with increasing	Take measurements, using a range of scientific equipment, with increasing accuracy and

	<p>closely, using simple equipment.</p> <p>Use simple observations and ideas to suggest answers to questions.</p> <p>To observe simple changes over time and, with guidance, begin to notice patterns and relationships.</p> <p>To say what I am looking for and what I am measuring.</p> <p>To know how to use simple equipment safely.</p> <p>Use simple measurements and equipment with support (eg hand lenses and egg timers)</p> <p>Begin to progress from non-standard units, reading cm, m, cl, l, °C</p>	<p>Use observations and ideas to suggest answers to questions.</p> <p>To observe changes over time and, with guidance, begin to notice patterns and relationships.</p> <p>To say what I am looking for and what I am measuring.</p> <p>To know how to use simple equipment safely.</p> <p>Use simple measurements and equipment with increasing independence (eg hand lenses and egg timers)</p> <p>Begin to progress from non-standard units, reading mm, cm, m, ml, l, °C</p>	<p>units, using a range of equipment, including thermometers and data loggers.</p> <p>Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them.</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.</p> <p>Learn to use some new equipment appropriately (eg data loggers).</p> <p>Begin to see a pattern in my results.</p> <p>Begin to choose from a selection of equipment.</p> <p>Begin to observe and measure accurately using standard units including time in minutes and seconds.</p>	<p>using standard units, using a range of equipment, including thermometers and data loggers.</p> <p>Begin to look for naturally occurring patterns and relationships and decide what data to collect to identify them.</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.</p> <p>Learn to use new equipment appropriately (eg data loggers).</p> <p>Can see a pattern in my results.</p> <p>Can choose from a selection of equipment.</p> <p>Can observe and measure accurately using standard units including time in minutes and seconds.</p>	<p>accuracy and precision, taking repeat readings where appropriate.</p> <p>Begin to identify patterns that might be found in the natural environment.</p> <p>Begin to make their own decisions about what observations to make, what measurements to use and how long to make them for and whether to repeat them. Choose the most appropriate equipment and explain how to use it accurately.</p> <p>Begin to interpret data and find patterns. Select equipment on my own. Can make a set of observations and say what the interval and range are.</p> <p>Begin to take accurate and precise measurements – N, g, kg, mm, cm, mins, seconds, cm²V, km/h, m per sec, m/sec Graphs – pie, line</p>	<p>precision, taking repeat readings where appropriate.</p> <p>Identify patterns that might be found in the natural environment.</p> <p>Make their own decisions about what observations to make, what measurements to use and how long to make them for and whether to repeat them. Choose the most appropriate equipment and explain how to use it accurately.</p> <p>Can interpret data and find patterns. Select equipment on my own. Can make a set of observations and say what the interval and range are.</p> <p>Accurate and precise measurements – N, g, kg, mm, cm, mins, seconds, cm²V, km/h, m per sec, m/sec Graphs – pie, line, bar (Year 6)</p>
Investigating	<p>To begin to discuss my ideas about how to find things out.</p> <p>Perform simple tests with support.</p> <p>To begin to discuss my ideas about how to find things out.</p> <p>To begin to say what happened in my investigation.</p>	<p>Perform simple tests.</p> <p>To discuss my ideas about how to find things out.</p> <p>To say what happened in my investigation.</p>	<p>Set up some simple practical enquiries, comparative and fair tests.</p> <p>Begin to recognise when a simple fair test is necessary and help to decide how to set it up.</p> <p>Begin to think of more than one variable factor.</p>	<p>Set up simple practical enquiries, comparative and fair tests.</p> <p>Recognise when a simple fair test is necessary and help to decide how to set it up.</p> <p>Can think of more than one variable factor.</p>	<p>Begin to use test results to make predictions to set up further comparative and fair tests.</p> <p>Begin to recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why.</p> <p>Begin to suggest improvements to my method and give reasons. Begin to decide when it is appropriate to do a fair test.</p>	<p>Use test results to make predictions to set up further comparative and fair tests.</p> <p>Recognise when and how to set up comparative and fair tests and explain which variables need to be controlled and why.</p> <p>Suggest improvements to my method and give reasons. Decide when it is appropriate to do a fair test.</p>

Recording and Reporting Findings	Gather and record data with adult support, to help in answering questions.	Gather and record data with some adult support, to help in answering questions. Begin to record simple data. Begin to record and communicate their findings in a range of ways. Can show my results in a simple table that my teacher has provided.	Gather and record data to help in answering questions. Record simple data. Record and communicate their findings in a range of ways. Can show my results in a table that my teacher has provided.	Gather, record, and begin to classify and present data in a variety of ways to help in answering questions. Begin to record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. Begin to report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Begin to use notes, simple tables and standard units and help to decide how to record and analyse their data. Begin to record results in tables and bar charts.	Gather, record, classify and present data in a variety of ways to help in answering questions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables. Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. Use notes, simple tables and standard units and help to decide how to record and analyse their data. Can record results in tables and bar charts.	Begin to record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar and line graphs. Begin to report and present findings from enquiries. Begin to decide how to record data from a choice of familiar approaches. Begin to choose how best to present data.	Record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables and bar and line graphs. Report and present findings from enquiries. Decide how to record data from a choice of familiar approaches. Can choose how best to present data.
Identifying, Grouping and Classifying	Identify and classify with support.	Identify and classify with some support. To begin to observe and identify, compare and describe. To begin to use simple features to compare objects, materials and living things and, with help, decide how to sort and group them.	Identify and classify. Observe and identify, compare and describe. Use simple features to compare objects, materials and living things and, with help, decide how to sort and group them.	Begin to identify differences, similarities or changes related to simple scientific ideas and processes. Begin to talk about criteria for grouping, sorting and classifying and use simple keys. Begin to compare and group according to behaviour or properties, based on testing.	Identify differences, similarities or changes related to simple scientific ideas and processes. Talk about criteria for grouping, sorting and classifying and use simple keys. Compare and group according to behaviour or properties, based on testing.	Begin to use and develop keys and other information records to identify, classify and describe living things and materials.	Use and develop keys and other information records to identify, classify and describe living things and materials.
Research	To begin to find information to help me from books and computers with help.	To begin to use simple secondary sources to find answers. To begin to find information to help me from books and computers with help.	Use simple secondary sources to find answers. Can find information to help me from books and computers with help.	Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations.	Begin to recognise when and how secondary sources might help to answer questions that cannot be answered through practical investigations.	Begin to recognise which secondary sources will be most useful to research their ideas.	Recognise which secondary sources will be most useful to research their ideas.
Conclusions	Begin to talk about what they have found out and how they found it out.	Begin to talk about what they have found out and how they found it out. To begin to say what happened in my investigation.	Talk about what they have found out and how they found it out. To say what happened in my investigation. To say whether I was surprised at the results or not.	I am beginning to use results to draw simple conclusions , make predictions for new values, suggest improvements and raise further questions.	Using results to draw simple conclusions , make predictions for new values, suggest improvements and raise further questions.	Am beginning to report and present findings from enquiries , including conclusions, causal relationships and explanations of and degree of trust in results, in oral and	Begin to identify scientific evidence that has been used to support or Reporting and presenting findings from enquiries , including conclusions, causal relationships and

		To begin to say whether I was surprised at the results or not. To begin to say what I would change about my investigation.	To say what I would change about my investigation.	Am beginning to use straightforward scientific evidence to answer questions or to support their findings.	Use straightforward scientific evidence to answer questions or to support their findings.	written forms such as displays and other presentations.	explanations of and degree of trust in results, in oral and written forms such as displays and other presentations.
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Topic specific vocabulary

KS1	
Working Scientifically	Questions, answers, observing, equipment, tests, gathering, recording.
Materials	Sorting, material, metal, plastic, wood, paper, glass, clay, rock, fabric, sand, hard, soft, rough, smooth, shiny, dull, bendy, waterproof, strong, weak, group, object, sort, stretchy, magnetic, non magnetic, transparent, natural, man-made, manufactured, change, twist, boil, melt, squash, heat, cool, freeze.
Plants	Plants, animals, local environment, reproduce, shoot, stem, flower, roots, earth, sun, soil, leave, water, light, seeds, soil, grow, not living, living, healthy,
Animals Including Humans	Health, growth, move, reproduce, feed, eat, diet, variety, germ, healthy, unhealthy, medicines, safety, exercise, adult, young, parent, baby, taste, sweet, salty, sour, food. Sense, eye, ear, nose, mouth, hand, foot, feet, arm, leg, head, neck, knee, wing, beak, see, hear, smell, taste, touch, feel, alive, living, not alive, tall, tallest, taller, small, smallest, smaller, difference, same.
Living things and their habitats	Variation, variety, feathers, fur, coat, beak, legs, animals, plants, branch, trunk, colour, group, moves, grows, feeds, humans, similar, different,
Seasonal Change	Seasons, autumn, summer, spring, winter, rain, sun, cloud, snow, thunder, lightening, wind, months on the year, rainfall, sunshine, wind direction, colours, seasonal clothes.

Lower Key Stage Two	
Working Scientifically	Questions, answers, observing, equipment, tests, gathering, recording, scientific enquires, comparative, fair test, systematic, accurate, measurements, classifying, presenting data, language, vocabulary, conclusions, predictions, similarities, difference.
Living things and their habitats	Habitat, nutrition, environment, keys, condition, consumer, producer, organism, predator, prey, food chain, similar, different,
Plants	Plants, light, warmth, water, leaves, roots, stem, grow, growth, height.
Animals including humans	Teeth, eating, feed, growth, activity, food groups, vegetables, meat, fish, cereals, sugars, fats, fruits, starches, tooth, teeth, incisor, molar, canine, diet, healthy, unhealthy, root, decay, food, balanced diet, skeleton, bone, ribs, spine, skull, vertebrate, contract, relax, joint, move, muscles, muscle.
Materials	Material, strong, weak, flexible, transparent, non transparent, soft, hard, waterproof, absorbent, shiny, dull, rigid, hot, cold, rough, smooth, opaque, compare, comparisons, describe, properties, characteristics.
Light	Light, shadows, dark, transparent, opaque, direction, light travels, translucent, shortest, longest, highest, object, material, light source, sun, night, day, bright, night, day, torch, shine.
Rocks	Rocks, solids, slate, granite, sandstone, chalk, soil, clay, sand, limestone, quartz, marble, stone, pebble, texture, absorbent, characteristic, surface.

Forces and Magnets	Magnet, spring, metal, iron, copper, aluminium, steel, brass, attract, repel, magnetic, non-magnetic, attraction, repulsion, force, elastic, pull towards, push away from, stretch, squash, compress, pushes, pulls, movement, twist, spin, swing, slide, swerve, hop, jump, turn, fast, slow, safe, danger, speed up, slow down.
States of matter	Solids, liquids, separating materials, solid, liquid, melt, freeze, solidify, dissolve, solution, filter, un dissolved, dissolved, separate, sieve, mix, evaporate, condense, state, gas.
Sound	Sound, hearing, high, low, loud, quiet, shake, rattle, blow, pluck, tap, scrape, ring, silence, direction, louder, quieter, noise, soft, further away, nearer, hear, ear, faint, volume, muffle, tuning, source, vibrate, soundproof, loudness.
Electricity	Electricity, electrical, circuit, battery, bulb, crocodile clip, buzzer, motor, conduct, conductor, insulate, insulator, switch, break, power, bright, brightness, dim, batteries, mains, socket, brighter, plug, light.

Upper Key Stage Two	
Working Scientifically	Questions, answers, observing, equipment, tests, gathering, recording, scientific enquires, comparative, fair test, systematic, accurate, measurements, classifying, presenting data, language, vocabulary, conclusions, predictions, similarities, difference, controlling variables, precision, complexity.
Living things and their habitats	Life cycles, reproduce, reproduction, stamen, stigma, sepal, petal, ovary, pollen, style, germinate, germination, fertilise, fertilisation, pollinate, pollination, disperse, babyhood, childhood, adulthood.
Animals including humans	Diet, balanced diet, side effects, fats, sugars, starched, food types, heart, circulation, heartbeat, pulse, pulse rate, muscle, blood, blood vessel, lung, breathe, growth, activity.
Materials	Material, strong, weak, flexible, transparent, non transparent, soft, hard, waterproof, absorbent, shiny, dull, rigid, hot, cold, rough, smooth, opaque, compare, comparisons, describe, properties, characteristics.
Light	Light, beam, reflect, reflection, opaque, mirror, light travelling, sources, reflected, travel, block, shiny surface, spectrum, cast.
Forces and Magnets	Magnet, spring, metal, iron, copper, aluminium, steel, brass, attract, repel, magnetic, non-magnetic, attraction, repulsion, force, elastic, pull towards, push away from, stretch, squash, compress, pushes, pulls, movement, twist, spin, swing, slide, swerve, hop, jump, turn, fast, slow, safe, danger, speed up, slow down, gravity, fall towards earth, air resistance, friction, levers, pulleys, gears.
Electricity	Changing circuits, circuit, complete circuit, conductor, insulator, symbol, circuit diagram, electricity, component, voltage.
Earth and Space	Earth, sun, moon, sphere, revolve, orbit, spin, rotate, axis, sunrise, sunset, north, south, east, west, light sources, shadow, names of the planets, solar system.
Evolution and inheritance	Plant growth, fertiliser, nutrients, consumer, producer, predator, prey, food chain, key, suited, adaption, fossil, life processes, change, offspring, baby, adult, identical, non identical, same, different, evolution.