



Curriculum Intent for Science

EYFS

Area of Learning and Development: Understanding the World

ELG: The Natural World

Explore the natural world around them, making observations and drawing pictures of animals and plants.

Know some similarities and differences between the natural world around them and contrasting environments, drawing on their experiences and what has been read in class.

ELG: Past & Present

Know some similarities and differences between things in the past and now, drawing on their experiences and what has been read in class.

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
The Natural World	To ask questions about the natural environment. To respect and care for the natural environments To begin to notice changes in the natural environment around us	To know about and recognise the signs of autumn To know about features of the world and Earth	To know about and recognise the signs of winter To know some important processes and changes in the natural world including states of matter (freezing), begin to investigate some of these changes	To know about and recognise the signs of spring To know about features of my own immediate environment and how they might vary from another To plant seeds To know the difference between herbivores and carnivores (linked to dinosaurs, spring animals)	To observe the growth of seeds and talk about changes To know how to care for growing plants To learn about lifecycles of plants and animals To know that some animals are nocturnal To know about different habitats	To know about and recognise the signs of summer To know that some things in the world are man-made and some things are natural To harvest grown fruit and vegetables To know some important processes and changes in the natural world including states of matter (melting, floating and sinking)

	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Past and Present	To know about my own life story To know how I have changed over time			Mary Anning Palaeontologist		

Key Stage 1

A	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
National Curriculum	Plants and trees		Animals including humans		Everyday Materials and properties	Seasonal changes
Key Concept	Diversity (Forest based learning T1)		Diversity		Changes	Changes
Substantive knowledge	<p>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>Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals.</p> <p>Identify and name a variety of common animals that are carnivores, herbivores and omnivores.</p> <p>Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets).</p> <p>Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</p>		<p>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, and rock.</p> <p>Describe the simple physical properties of a variety of everyday materials.</p> <p>Compare and group together a variety of everyday materials on the basis of their simple physical properties.</p>	<p>Observe changes across the four seasons.</p> <p>Observe and describe weather associated with the seasons and how day length varies.</p>
Disciplinary knowledge	<p>Observe closely, perhaps using magnifying glasses, and compare and contrast familiar plants.</p> <p>Describe how to identify and group them.</p> <p>Draw diagrams showing the parts of different plants including trees.</p> <p>Pupils might keep records of how plants have changed over time, for example, the leaves falling off trees and buds opening.</p> <p>Compare and contrast what they have found out about different plants.</p> <p>Observe and record, with some accuracy, the growth of a variety of plants as they change over time from a seed or bulb or observing similar plants at different stages of growth; setting up a comparative test to show that plants need light and water to stay healthy.</p> <p><i>Measure length in centimetres</i></p> <p><i>Understand the word -diagram</i></p>		<p>Use observations to compare and contrast animals at first hand or through videos and photographs, describing how they identify and group them.</p> <p>Group animals according to what they eat.</p> <p>Use senses to compare different textures, sounds and smells.</p>		<p>Use simple features to compare objects, materials and living things.</p> <p>Decide how to sort and classify objects into simple groups with some help.</p> <p>Record and communicate findings in a range of ways with support</p> <p><i>sort, group, gather and record data in a variety of ways to help in answering questions such as in simple sorting diagrams, pictograms, tally charts, block diagrams and simple tables.</i></p> <p><i>Use beakers</i></p>	<p>Making tables and charts about the weather.</p> <p>Making displays of what happens in the world around them, including day length, as the seasons change.</p> <p><i>Use weather thermometers, weather vanes</i></p>

Suggested Debate	Do all animals look like smaller versions of their parents?	Are most everyday objects made of metal?	Is the length of the day always the same?
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Key scientist	Angie Burnett https://pstt.org.uk/unique-resources/a-scientist-just-like-me/?sf_paged=3	Taneesha Aleen Zoologist https://pstt.org.uk/unique-resources/a-scientist-just-like-me/	Dr Raquel Pardo https://pstt.org.uk/unique-resources/a-scientist-just-like-me/?sf_paged=3
Common misconceptions			
Tier 3 Vocabulary	Diversity Evergreen Deciduous Seed Fruit	Diversity Reptiles Mammals Carnivores Amphibians	Changes Metals Materials Changes Day Seasons length

Key Stage 1

B	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
National Curriculum	Plants	Animals, including humans	Materials and their properties		Living things & their habitats	
Key Concepts	Living things	Living Things (Forest based learning)	Changes		Living things (Forest based Learning)	
Substantive knowledge	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.	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.	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.		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. Identify and name a variety of plants and animals in their habitats, including micro-habitats. 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.	
Disciplinary knowledge	Observe and record, with some accuracy, the growth of a variety of plants as they change over time from a seed or bulb. Observe similar plants at different stages of growth; set up a	Observe, through video or first-hand observation and measurement, how different animals including humans, grow. Asking questions about what things animals need for survival and what humans need to stay healthy.	Perform simple tests to explore questions, for example: 'What is the best material for an umbrella? ... for lining a dog basket? ... for curtains? ... for a bookshelf? ... for a gymnast's leotard?' Compare the uses of everyday materials in and around the school with materials found in other places (at home, the journey to school, on visits, and in stories, rhymes and songs).		Sort and classify things according to whether they are living, dead or were never alive, and recording their findings using charts. Describe how they decided where to place things, exploring questions like: 'Is a flame alive? Is a deciduous tree dead in winter?' and talk about ways of answering their questions. Construct a simple food chain that includes humans (eg, grass, cow, human).	

	comparative test to show that plants need light and water to stay healthy. <i>Measure in centimetres and metres</i> <i>Use beakers</i>	Suggest ways to find answers to their questions.	Observe closely, identify and classify the uses of different materials, and record observations. <i>Use Venn diagrams and block graphs where appropriate</i> <i>Use funnels</i>	Grouping animals according to what they eat. Describe the conditions in different habitats and microhabitats.
Suggested debates	Do all plants start as a seed?	If you drink enough water, you will be healthy	Can you bend, twist, squash and stretch a solid object?	A kite does not need plants to survive.
Key scientist		Kelly Blacklock https://pstt.org.uk/unique-resources/a-scientist-just-like-me/?sf_paged=2	Pearl Agyakwa https://pstt.org.uk/unique-resources/a-scientist-just-like-me/?sf_paged=5	Prem Sing Gill https://pstt.org.uk/unique-resources/a-scientist-just-like-me/?sf_paged=3
Common Misconceptions				
Tier 3 Vocabulary	Living things Forest Reproduction	Temperature Mature Offspring	Changes Plastic Solid Suitability Glass	Living things Habitats Dead Non-living Food chain

Key Stage 2

A	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
National Curriculum	Animals including humans		Everyday Materials & Marvelous Mixtures		Light & Sight	
Key Concepts	Diversity		Changes		Energy	
Substantive knowledge	<p>Yr3/4: Identify that humans and some other animals have skeletons and muscles for support, protection, and movement. 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>Yr 5/6: Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood.</p>		<p>Yr 3/4: 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.</p> <p>Yr 5/6: Compare and group together everyday materials on the basis of their properties (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.</p>		<p>Yr 3 /4 Recognise that they need light in order to see things/ 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 changes.</p> <p>Yr 5/6 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>	

		Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic.	
Disciplinary knowledge	<p>Compare the teeth of carnivores and herbivores and suggest reasons for differences.</p> <p>Find out what damages teeth and how to look after them.</p> <p>Draw/discuss their ideas about the digestive system and compare them with models or images.</p> <p>Identify and group animals with and without skeletons and observe and compare their movement; explore ideas about what would happen if humans did not have skeletons.</p> <p><i>Use quadrants if appropriate.</i></p>	<p>Group and classify a variety of different materials.</p> <p>Explore the effect of temperature on substances such as chocolate, butter, cream (for example, to make food such as chocolate crispy cakes and ice cream for a party).</p> <p>Research the temperature at which materials change state e.g. when iron melts or when water condenses into a liquid.</p> <p>Carry out tests to answer questions, for example, 'Which materials would be the most effective for making a warm jacket, for wrapping ice cream to stop it melting, or for making blackout curtains?'</p> <p>Observe and record evaporation over time, (a puddle in the playground) and investigate the effect of temperature on washing drying or snow melting.</p> <p>Observe and compare the changes that take place, for example, when burning different materials or baking bread.</p> <p>Research and discuss how chemical changes have an impact on our lives, for example, in cooking, the creative use of new materials such as polymers, super-sticky and super-thin materials.</p> <p><i>Know how to use a thermometer with accuracy</i> <i>Use petri dishes, thermometers, beakers, measuring cylinders</i></p>	<p>Decide where to place rear-view mirrors on cars.</p> <p>Design and make a periscope and use the idea that light appears to travel in straight lines to explain how it works.</p> <p>Investigate the relationship between light sources, objects and shadows by using shadow puppets.</p> <p>Look at a range of phenomena including rainbows, colours on soap bubbles, objects looking bent in water and coloured filters.</p> <p>Look for patterns in what happens to shadows when the light source moves or the distance between the light source and the object changes.</p> <p><i>Measure in cm and metres</i> <i>Use mirrors</i> <i>Use/make a light box</i> <i>Use a glass prism</i></p>
Suggested debates	Soil isn't that important – it's just mud	We should ban/get rid of all plastics or No more plastic should be made.	Without light, we couldn't live
Key Scientist	<p>Dr Marie Goepp https://pstt.org.uk/unique-resources/a-scientist-just-like-me/?sf_paged=5</p>	<p>James Mortimer https://pstt.org.uk/unique-resources/a-scientist-just-like-me/?sf_paged=3</p> <p>Letizia Delle Vedove https://pstt.org.uk/unique-resources/a-scientist-just-like-me/?sf_paged=4</p> <p>Nicole Melzack https://pstt.org.uk/unique-resources/a-scientist-just-like-me/</p>	<p>Professor Colin Webb https://pstt.org.uk/unique-resources/a-scientist-just-like-me/?sf_paged=5</p>
Common misconceptions		<p>States of matter https://pstt.org.uk/resources/common-misconceptions/</p>	<p>Light https://pstt.org.uk/resources/common-misconceptions/</p>

Tier 3 Vocabulary	Diversity Digestion Vertebrates	Skeletons Arteries Invertebrates	Circulation Veins Capillaries	Changes Evaporation	Reversible Condensation	Irreversible	Energy Reflections	Spectrum Shadows	Light rays
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Key Stage 2

B	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
National Curriculum	Rock Detectives – Substances and Properties		Animals including humans – Food and nutrition.		Electricity and Circuits.	
Key Concepts	Changes		Diversity & Living Things		Energy	
Substantive knowledge	<p>Yr 3/4: 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.</p>		<p>Yr3/4: identify that animal, including humans, need the right types and amount of nutrition, they cannot make their own food; they get nutrition from what they eat.</p> <p>Yr 5 /6: recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. describe the ways in which nutrients and water are transported within animals, including humans.</p>		<p>Yr 3/4: identify common appliances that run on electricity. construct a simple series electrical circuit, identifying and naming its basic parts, identify whether or not a lamp will light in a simple series circuit. recognise that a switch opens and closes a circuit. recognise some common conductors and insulators, Yr 5/6: 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.</p>	
Disciplinary knowledge	<p>Observe rocks, including those used in buildings and gravestones, and explore how and why they might have changed over time.</p> <p>Use a hand lens or microscope to help them to identify and classify rocks according to whether they have grains or crystals, and whether they have fossils in them.</p> <p>Research and discuss the different kinds of living things whose fossils are found in sedimentary rock and explore how fossils are formed.</p> <p>Explore different soils and identify similarities and differences between them and investigate what happens when rocks are rubbed together or what changes occur</p>		<p>Compare and contrast the diets of different animals (including their pets) and decide ways of grouping them according to what they eat.</p> <p>Research different food groups and how they keep us healthy, and design meals based on what they find out.</p> <p>Explore the work of scientists and scientific research about the relationship between diet, exercise, drugs, lifestyle and health.</p>		<p>Know that bulbs get brighter if more cells are added. Know that metals tend to be conductors of electricity.</p> <p>Know that some materials can, and some cannot be used to connect across a gap in a circuit.</p> <p>Systematically identify the effect of changing one component at a time in a circuit.</p> <p>Compare materials to make a switch in a circuit.</p> <p>Design and make a set of traffic lights, a burglar alarm, or some other useful circuit.</p> <p>Use circuit diagram symbols: battery, wires, bulbs, switches independently.</p>	

	when they are in water raise and answer questions about the way soils are formed. <i>Use funnels, filter paper, beakers, sieves, measuring cylinders</i>	<i>Choose the most appropriate way to record results (bar charts, line graphs, scatter graphs).</i> <i>Use Venn diagrams, tables and bar charts.</i>	
Suggested Debate	Soil isn't that important – it's just mud	Should unhealthy food cost more? Children should not be allowed to eat junk food	Everyone in the world should have electricity.
Key Scientist	Dr Emma Nicholls https://pstt.org.uk/unique-resources/a-scientist-just-like-me/?sf_paged=4		Edward Thompson https://pstt.org.uk/unique-resources/a-scientist-just-like-me/?sf_paged=2
Misconceptions			Electricity https://pstt.org.uk/resources/common-misconceptions/
Tier 3 Vocabulary	Changes Fossils Permeable	Diversity Living Things Nutrients Nutrition	Energy Circuit Cells Voltage Resistance

Key Stage 2

C	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
National Curriculum	Sound & Hearing		Plants: How does your garden grow? (Rain garden)	Animals including humans: Living things and their habitats (Forest based learning)	Reproduction: Plants, Animals and Humans. (NB Yr 5 and 6 separate components)	Evolution and inheritance (NB Yr 5 and 6 separate components)
Key Concept	Diversity & Energy		Diversity	Living Things	Diversity & Living Things	Evolution/Changes Living Things

<p>Substantive knowledge</p>	<p>Yr 3/4 : 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, 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>Revisit and recall: Light and seeing.</p>	<p>Yr 3/4 : Identify and describe the functions of different parts of flowering plants: Explore the requirements of plants for life and growth, and how they vary from plant to plant. Investigate how 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> <p>Y5/6 : Classification of plants. 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>	<p>Yr 3/4: 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>	<p>Yr 5/6 : 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.</p>	<p>Yr 5/6: 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.</p> <p>NB: Year 6 pupils need to be taught this separately. And every year to year 6 pupils</p>
<p>Disciplinary knowledge</p>	<p>Find patterns in the sounds that are made by different objects such as saucepan lids of different sizes or elastic bands of different thicknesses.</p> <p>Make earmuffs from a variety of different materials to investigate which provides the best insulation against sound.</p> <p>Make and play their own instruments by using what they have found out about pitch and volume.</p> <p><i>Use Logi boxes</i> <i>Use tables, bar graphs and line graphs</i></p>	<p>Compare the effect of different factors on plant growth, for example, the amount of light, the amount of fertiliser.</p> <p>Discover how seeds are formed by observing the different stages of plant life cycles over a period of time.</p> <p>Look for patterns in the structure of fruits that relate to how the seeds are dispersed.</p>	<p>Use classification systems and keys to identify some animals and plants in the immediate environment.</p> <p>Research unfamiliar animals and plants from a broad range of other habitats and decide where they belong in the classification system.</p> <p><i>Choose the most appropriate way to record results(bar charts, line graphs, scatter graphs)</i></p>	<p>Observe and compare the life cycles of plants and animals in their local environment with other plants and animals (in the rainforest, in the oceans, in desert areas and in prehistoric times), asking pertinent questions and suggesting reasons for similarities and differences.</p> <p>Try to grow new plants from different parts of the parent plant, for example, seeds, stem/root cuttings, tubers, and bulbs.</p>	<p>Observe and raise questions about local animals and how they are adapted to their environment.</p> <p>Compare how some living things are adapted to survive in extreme conditions, for example, cactuses, penguins and camels. They might analyse the advantages and disadvantages of specific adaptations, such as being on 2 feet rather than 4, having a long or a short beak, having gills or lungs, tendrils on</p>

		<p>Observe how water is transported in plants, for example, by putting cut, white carnations into coloured water and observing how water travels up the stem to the flowers.</p> <p><i>Measurements in mm and cm Measuring cylinders</i></p>		<p>Observe changes in an animal over a period of time (by hatching and rearing chicks), compare how different animals reproduce and grow. Research the gestation periods of other animals and comparing them with humans.</p> <p>Find out and record the length and mass of a baby as it grows.</p> <p><i>Choose the most appropriate way to record results (bar charts, line graphs, scatter graphs)</i></p>	<p>climbing plants, brightly coloured and scented flowers.</p> <p><i>Choose the most appropriate way to record results (bar charts, line graphs, scatter graphs)</i></p>	
Suggested Debate	Loud music damages your ears	Without bees, there wouldn't be any plants.	Is it ok to keep animals in zoos?	Is it our job to look after the environment?	<p>Do you think it's possible for two people to be exactly the same?</p> <p>Do you think all genetic diseases should be genetically engineered so that they become obsolete?</p>	
Key Scientist	Letizia Delle Vedove https://pstt.org.uk/unique-resources/a-scientist-just-like-me/?sf_paged=4	Susanna Bourne-Worster https://pstt.org.uk/unique-resources/a-scientist-just-like-me/?sf_paged=2	Dawood Qureshi https://pstt.org.uk/unique-resources/a-scientist-just-like-me/?sf_paged=5	Ruth Sutton https://pstt.org.uk/unique-resources/a-scientist-just-like-me/	Emma Dunne https://pstt.org.uk/unique-resources/a-scientist-just-like-me/?sf_paged=4	
Common misconceptions	Sound https://pstt.org.uk/resources/common-misconceptions/				Evolution https://pstt.org.uk/resources/common-misconceptions/	
Tier 3 Vocabulary	Diversity Vibration Pitch Volume	Energy	Diversity Micro-organisms Organic matter	Diversity & Living Things Environment Classification	Diversity & Living Things Sexual reproduction Fertilisation Pollination Seed dispersal Life cycles Metamorphosis	Evolution/changes Living Things Genetics Adaptations Evolution

Key Stage 2

D	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
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National Curriculum	Earth & Space	Magnetism: Magnets and Forces	Animals: Grouping & Classifying & Life cycles
Key Concepts	Earth & Universe	Energy	Diversity & Living Things (Oare arboretum/Forest based learning)
<p>Year 6</p> <p>Substantive knowledge</p>	<p>Yr 5/6 : Describe the movement of the Earth, and other planets, relative to the Sun in the solar system. Describe the movement of the Moon relative to the Earth. Describe the Sun, Earth and Moon as approximately spherical bodies. 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>Yr 3/4 : 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. Describe magnets as having two poles. Predict whether two magnets will attract or repel each other, depending on which poles are facing.</p> <p>Yr 5/6 : 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> <p>Revisit and recall: Electricity and Circuits (possible DT link to moving mechanisms)</p>	<p>Yr 3/4 : Identifying and grouping animals with and without skeletons and observing and comparing their movement. Construct and interpret a variety of food chains, identifying producers, predators, and prey.</p> <p>Yr 5/6: Describe the differences in the life cycles of a mammal, an amphibian, an insect, and a bird.</p>
<p>Disciplinary knowledge</p>	<p>Compare the time of day at different places on the Earth through internet links and direct communication.</p> <p>Create simple models of the solar system; construct simple shadow clocks and sundials, calibrated to show midday and the start and end of the school day.</p> <p>Find out why some people think that structures such as Stonehenge might have been used as astronomical clocks.</p> <p><i>Use an array</i></p>	<p>Compare how different things move and group them.</p> <p>Raise questions and test to find out how far things move on different surfaces.</p> <p>Explore strengths of different magnets and find a fair way to compare them.</p> <p>Sort materials into those that are magnetic and those that are not.</p> <p>Look for patterns in the way that magnets behave in relation to each other for example, the strength of the magnet or which pole faces another.</p> <p>Identify how these properties make magnets useful in everyday items and suggesting uses for different magnets.</p>	<p>Use and make simple guides or keys to explore and identify local plants and animals.</p> <p>Make a guide to local living things.</p> <p>Raise and answer questions based on their observations of animals and other animals that they have researched.</p> <p>Use classification systems and keys to identify some animals and plants in the immediate environment.</p> <p>Research unfamiliar animals and plants from a broad range of other habitats and decide where they belong in the classification system.</p> <p><i>Use tables, bar graphs and line graphs</i> <i>Use quadrants</i></p>

		<p>Use Venn diagrams, tables and bar charts</p> <p>Explore falling paper cones or cupcake cases.</p> <p>Design and make a variety of parachutes and carrying out fair tests to determine which designs are the most effective.</p> <p>Explore resistance in water by making and testing boats of different shapes.</p> <p>Design and make products that use levers, pulleys, gears and/or springs.</p> <p>Use force meters Measure in Newtons</p>	
Suggested Debate	Is it important to explore outer space? Is it right to spend all that money when people are struggling to buy food?	Should robots be in charge?	
Key Scientist	Dr Sheila Kannani MBE https://pstt.org.uk/unique-resources/a-scientist-just-like-me/?sf_paged=3		Michelle Williams and Tessa Nash https://pstt.org.uk/unique-resources/a-scientist-just-like-me/?sf_paged=3
Misconceptions		https://pstt.org.uk/resources/common-misconceptions/ Levers	
Tier 3 Vocabulary	Earth and Universe Solar system Orbit	Energy Attract/repel Friction Forces Gravity Magnetism	Diversity & Living Things Prey Producers Predator Consumers