



Intended Curriculum Progression Document for Science

Long term plan 2024-2025						
	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2
EYFS F1	Explore the natural world around them- Nature walks Consider what they hear, see and feel outside.	Me and my family Make connections between the features of their family and other families. Notice the differences between people.	Look at their immediate environment- explore natural materials inside and outside Begin to understand the need to respect and care for all living things	Explore natural materials indoors and outdoors. Such as wet and dry sand, water and paint.	Plant seeds and care for growing plants Understand the life cycle of a plant or animal Describe what they see, hear and feel outside	Explore the natural world looking for worms and mini beasts.
EYFS F2	Ourselves Sequence family members explain who they are (baby, toddler, child, teenager, adult, elderly) Seasonal Changes (continued throughout the year)	Houses and Homes Talk about what they see in their own environment using a wide range of vocabulary Talk about the natural world around them	Materials Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.	Transport Explore how things work Forces – pushing/pulling	Plants & Animals Explore the natural world around them, making observations and drawing pictures of animals and plants	Plants & Animals Minibeasts and their habitats Food- healthy/not healthy.
Year 1	Seasonal changes (continuous) Animals (including humans)	Animals (including humans)	Animals (including humans)	Uses of everyday materials	Plants	Seasonal changes
Year 2	Living things and their habitats	Living things and their habitats	Animals (including humans)	Uses of everyday materials	Uses of everyday materials	Plants
Year 3	Animals (including humans)	Forces	Rocks	Light	Plants	Plants

Year 4	Animals (including humans)	Sound	States of matter	States of matter	Living things and their habitats	Electricity
Year 5/6 (2024-25)	Light	Living things and their habitats	Electricity	Evolution and inheritance	Animals (including humans)	Animals (including humans)
Year 5/6 (2025-2026)	Animals (including humans)	Living things and their habitats	Forces	Earth and Space	Uses of everyday materials	Uses of everyday materials

Taken from Development Matters Non-Statutory curriculum guidance for the EYFS	3 and 4 year olds (F1) will be learning to:	Children in Reception (F2) will be learning to:	ELGs Children at the expected level of development will:
	<p>Use all their senses in hands-on exploration of natural materials.</p> <p>Explore collections of materials with similar and/or different properties.</p> <p>Talk about what they see, using a wide vocabulary</p> <p>Explore how things work. Plant seeds and care for growing plants.</p> <p>Understand the key features of the life cycle of a plant and an animal.</p> <p>Begin to understand the need to respect and care for the natural environment and all living things</p> <p>Explore and talk about different forces they can feel</p> <p>Talk about the differences between materials and changes they notice.</p>	<p>Explore the natural world around them.</p> <p>Describe what they see, hear and feel whilst outside.</p> <p>Recognise some environments that are different from the one in which they live.</p> <p>Understand the effect of changing seasons on the natural world around them.</p>	<p>The Natural World ELG</p> <ul style="list-style-type: none"> • 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; • Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

Year 1 End Points			
Unit Title	Scientific Enquiry	Assessed outcomes	Vocabulary

<p>Animals (including humans)</p>	<p>Fair Testing/ comparative tests: Can I investigate whether our sense of taste is better when we cannot see?</p> <p>Identifying and classifying: Can I identify the features of a bird? Can I classify animals into carnivores, herbivores and omnivores?</p> <p>Research: Can I find out the characteristics of an animal and say what they need to stay healthy? Can I share a fact about Jane Goodall and George Mottershead?</p>	<ul style="list-style-type: none"> • Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. • Identify and name a variety of common animals that are carnivores, herbivores and omnivores. • Describe and compare the structure of a variety of common animals • Identify, name, draw and label parts of the human body • Know which part of the body is associated with each sense. 	<p>carnivore, herbivore, omnivore, fish, shark, goldfish, amphibian, frog, reptile, snake, lizard, crocodile, bird, robin, parrot, blackbird, mammal, body parts senses: sight, hearing, smell, taste, touch</p>
<p>Uses of everyday materials</p>	<p>Fair testing: Can I find out which material is the most absorbent?</p> <p>Identifying and classifying: Can I sort objects into their material groups?</p> <p>Research: Can I share a fact about Ole Kirk Christiansen?</p>	<ul style="list-style-type: none"> • Distinguish between an object and the material it is made from. • Identify and name a variety of everyday materials, including wood, plastic, glass, metal, fabric and rock. • Describe simple properties of a variety of everyday materials. • Compare and group materials by their simple physical properties. 	<p>object, material, fabric, glass, metal, plastic, wood, water, brick, paper, elastic, foil, stone, rubber property: bendy/not-bendy, hard/soft, stretchy/stiff, shiny/dull, rough/smooth, waterproof/not-waterproof, absorbent/not absorbent, opaque/transparent, thick/runny, sticky/lumpy and delicate.</p>
<p>Plants</p>	<p>Fair testing: Can I find out where seeds grow best?</p> <p>Identifying and classifying: Can I identify, describe and compare two trees in our playground?</p> <p>Observation over time: Can I observe changes in the leaves across the seasons?</p> <p>Pattern seeking: Is there a pattern in where we find moss growing in the school grounds?</p> <p>Research: Can I find out why George Washington Carver was important to botany?</p>	<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 plants, including trees 	<p>branch, trunk, stem, bark, stalk, bud, roots, stem, leaf, flower, blossom, petal, fruit, seeds, bulb, berry, wild, sunlight water, nutrition, vegetable, deciduous, evergreen (name of trees in the local area, names of garden and wild flowering plants in the local area)</p>

Seasonal changes	<p>Identifying and classifying: Can I talk about different seasons and suggest which clothes are best to wear? Observation over time: Can I observe how the weather changes over a week?</p> <p>Pattern seeking: Can I say how day length changes over a year?</p> <p>Research: How is winter different around the world?</p>	<ul style="list-style-type: none"> • To know the 4 seasons • To know the features of the 4 seasons • To describe the weather associated with each season 	<p>spring, summer, autumn, winter, season, weather, sunny, rain, rainy, raining, shower, windy, snowy, cloudy, hot, warm cold, storm, thunder, lightning, hail, sleet, snow, icy, frost, puddles, ice, rainbow, sun, sunrise, sunset, year, month, cool, temperature, thermometer, rain gauge.</p>
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Year 2 End Points			
Unit Title	Scientific Enquiry	Assessed outcomes	Vocabulary
Living things and their habitats	<p>Identifying and classifying: Can I classify items as living, dead or never lived?</p> <p>Pattern seeking: Can I find out which microhabitats different minibeasts prefer?</p> <p>Research: Can I research the plants and animals found in a chosen habitat? Can I find out about David Attenborough?</p>	<ul style="list-style-type: none"> • To know things that have never been alive. • To name some habitats and some plants and animals that live there. • To explain a simple food chain. • To construct a simple food chain. 	<p>Living/dead, never living, habitat, micro-habitat, life process, food chain, source, depend, survive</p>
Animals (including humans)	<p>Identify and classify: Can I say which offspring belongs to which animal?</p> <p>Observation over time: Can I say how humans change over time?</p> <p>Pattern seeking: Can I find out the effect of different exercise on my body?</p> <p>Research: Can I find out what I need to do to be hygienic and why? What do I need to do to be healthy? Can I research facts about Florence Nightingale?</p>	<ul style="list-style-type: none"> • To describe the life cycle of a human. • To describe the life cycle of another mammal. • To describe the life cycle of a non-mammal e.g. bird, frog or butterfly. • To match babies animals to adults and name them. • To create a balanced meal. • To know what all living things need to survive. • To know the impact of good vs poor diet and hygiene. 	<p>Life cycle, young, offspring, live young, develop, reproduce, diet, dehydrate, disease, energy, germs, heartrate, hygiene, nutrition, reproduction, growth, baby, toddler, child, teenager, adult, old person, Names of animals and their babies, survive, survival, water, food, air, exercise, heartbeat, breathing, hygiene, germs disease, food types,</p>

<p>Uses of everyday materials</p>	<p>Fair Testing: Can I find out which materials would be most suitable to make an umbrella?</p> <p>Identifying and classifying: Can I identify a material from a riddle about its properties?</p> <p>Pattern seeking: Can I investigate how different materials can change because of their properties?</p> <p>Research: Can I find out about Charles Macintosh inventing waterproof materials? Who was the Scottish inventor John Dunlop?</p>	<ul style="list-style-type: none"> • To identify natural and man-made materials. • To say what some materials can be used for. • To say why the properties of a material make it suitable for different uses. • To know how materials can be changed by squashing, bending, twisting and stretching. 	<p>Material, suitability, property, opaque, transparent, translucent, reflective, non reflective, flexible, rigid, shape, push/pushing, pull/pulling, twist/twisting, squash/squashing, bend/bending, stretch/stretching</p>
<p>Plants</p>	<p>Comparative Tests: What conditions do plants need to grow healthily?</p> <p>Identifying and classifying: Can I identify the different parts of a seed?</p> <p>Observation over time: Growing beans and crocus.</p> <p>Research: Can I find out about Jane Colden and her contribution to botany?</p>	<ul style="list-style-type: none"> • To know how a seed grows into a plant. • To know what plants need to grow and be healthy. 	<p>Light, shade, sun ,warm, cool, water, space, growing, healthy, plant, seed, seedling, bulb, germinate, shoot, root, sprout, nutrition, temperature</p>

Year 3 End Points			
Unit Title	Scientific Enquiry	Assessed outcomes	Vocabulary
<p>Animals (including humans)</p>	<p>Fair testing: Can I find out whether people with longer leg bones run faster?</p> <p>Identifying and classifying: Can I classify food into their correct groups?</p> <p>Observation over time: Can I describe the effects of exercise on our bodies?</p>	<ul style="list-style-type: none"> • Identify that animal, including humans, need the right types and amount of nutrition, and they cannot make their own food; they get nutrition from what they eat. • Explain why humans and some other animals have skeletons and muscles. 	<p>Nutrition, nutrients, carbohydrates, sugars, protein, vitamins, minerals, fibre, fat, water, skeleton, bones, muscles, joints, support, protect, move, skull, ribs, spine.</p>

	<p>Pattern seeking: Can I find out whether people with longer leg bones run faster? Research: Can I identify food as very healthy, healthy or unhealthy based on its nutritional value? Who was Marie Currie?</p>		
Forces and magnets	<p>Fair testing: Can I find out which surface allows a toy car to travel furthest? Can I find out whether a magnet's force is strong enough to attach a paperclip through different materials?</p> <p>Identifying and classifying: Can I identify magnetic materials?</p> <p>Pattern seeking: Can I find patterns in how magnets work?</p> <p>Research: Can I use a website to find out how Mary Somerville contributed to scientific discoveries?</p>	<ul style="list-style-type: none"> • Identify forces as pushes and pulls. • Describe friction as a force that slows objects down. • To be able to feel the pulling force of a magnet. • Sort materials according to whether they are magnetic or not. To identify the different poles of a bar magnet. • Use a magnetic compass with four points. • Explain that magnets produce an invisible pulling force. • Identify magnetic materials. • Identify different types of magnets. • Predict whether two magnets will attract or repel each other, depending on which poles are facing. 	<p>Magnet, magnetic, magnetic field, strength, bar magnet, ring magnet, button magnet, horseshoe magnet, poles, north pole, south pole repel, attract, forces, friction, surface, Force, push pull, twist, contact force, non-contact force, magnetic force, magnetic material, metal, iron, steel</p>
Rocks	<p>Fair testing: Can I find out whether some rock types are more permeable than others?</p> <p>Identifying and classifying: Can I identify and describe different rock types?</p> <p>Observation over time: Can I show how soil layers build up over time?</p> <p>Research: Can I find out why Mary Anning's discovery was so important?</p>	<ul style="list-style-type: none"> • Use simple scientific language accurately in oral and written work. • Group rocks by their properties and identify simple similarities and differences. • Name the three different types of rocks. • Handle and examine rocks to identify their properties. • State the four different types of matter that soil is composed of. • Explain the main processes of fossilisation. • Explain the difference between a fossil and a bone. 	<p>Rock, stone, pebble, bolder, grain crystals, layers, hard, soft, texture, absorbs water, fossil, bone, flesh, marble, chalk, granite, minerals, sandstone, slate, type of soil, igneous rock, sedimentary rock, metamorphic rock, magma, lava, sediment, permeable, impermeable, fossilisation, palaeontology, erosion</p>
Light	<p>Fair testing: Can I investigate how the position of the sun affects the length of a shadow?</p> <p>Identify and classify: Can I identify natural and artificial sources of light?</p>	<ul style="list-style-type: none"> • Identify light sources. • Understand that we need light to see. • Know that light travels in a straight line. • Identify reflective surfaces. • Know that the Sun can damage their eyes. • Know how to protect their eyes from the Sun. 	<p>Translucent, transparent, light, light source, dark reflection, reflect, ray, pupil, retina, shadow, opaque, reflective, non-reflective.</p>

	<p>Can I use a Venn diagram to sort opaque, transparent and translucent materials.</p> <p>Observations over time: Can I track the sun across the sky during the day?</p> <p>Pattern seeking: Can I find out how a shadow changes through the day?</p> <p>Research: Can I research Alhazan's major breakthrough in understanding light? Can I produce a poster about sun safety?</p>	<ul style="list-style-type: none"> • Understand that a shadow is formed when a solid object blocks light. • To be able to set up an investigation and make predictions. 	
Plants	<p>Fair test: How does the length of a celery stick affect how long it takes for the food colouring to dye the leaves?</p> <p>Observation over time: Can I order and explain the life cycle of a flowering plant?</p> <p>Pattern seeking: Can I observe which plants prefer shady conditions to grow.</p> <p>Research: Can I find out the role of each part of a flowering plant? Research the work of Kate Hardwick.</p>	<ul style="list-style-type: none"> • Use simple scientific language accurately in oral and written work. • Group rocks by their properties and identify simple similarities and differences. • Name the three different types of rocks. • To be able to handle and examine rocks to identify their properties. • To be able to state the four different types of matter that soil is composed of. • To be able to explain the main processes of fossilisation. • To be able to explain the difference between a fossil and a bone. 	<p>Photosynthesis, pollen, insect/ wind pollination, male, female, seed formation, seed dispersal, air, nutrients, minerals, soil, absorb, transport, pollination, fertilization, seed dispersal, roots, stem, leaves, evaporates, stigma, petal, filament, ovary, sepal,</p>

Year 4 End Points

Unit Title	Scientific Enquiry	Assessed outcomes	Vocabulary
Animals (including humans)	<p>Fair testing: Can I investigate the affect different liquids have on an eggshell?</p> <p>Identifying and classification: Can I identify different types of teeth and state their function?</p> <p>Observation over time: Can I observe what happens to an egg left in different solutions?</p>	<ul style="list-style-type: none"> • Identify and name the basic parts of the human digestive system. • To describe the function of the organs of the human digestive system. • Identify the simple function of different types of human teeth. • Compare the teeth of the herbivores and carnivores. • Explain what a simple food chain shows. • Construct and interpret a variety of food chains, identifying producers, predators and prey. 	<p>Digestive system, digest, digestion, mouth, teeth, saliva, oesophagus, stomach, small intestine, large intestine, rectum, anus, incisor, canine, molar, premolar, herbivore, carnivore, omnivore, producer, predator, prey</p>

	<p>Pattern seeking: Do all carnivores have the same teeth?</p> <p>Research: Can I find out Lilian Lindsay's life and how it links to dentistry?</p>		
Sound	<p>Fair testing: Can I investigate which string telephone will work the most effectively?</p> <p>Identifying and classifying: Can I identify what is vibrating to make the sound?</p> <p>Pattern seeking: Can I find patterns how the pitch of a sound changes when bottles containing different amounts of water are tapped/ blown?</p> <p>Research: Can I find out who invented the telephone?</p>	<ul style="list-style-type: none"> • Describe a range of sounds and explain how they are made. • Associate some sounds with something vibrating. • Compare sources of sound and explain how the sounds differ. • Explain how to change a sound(louder/softer). • Recognise how vibrations from sound travel through a medium to an ear. • Find patterns between the pitch of a sound and features of the object that produce it. • Find patterns between the volume of the sound and the strength of the vibrations that produced it. Recognise that sounds get fainter as the distance from the sound source increases. • Explain how you could change the pitch of a sound. • Investigate how different materials can affect the pitch and volume of sounds. 	<p>Sound, source, vibration, vibrations, sound vibration, sound wave, volume, amplitude, pitch (high, low) travel, faint, quiet, loud, insulation</p>
States of matter	<p>Fair testing: Can I investigate whether gas has any weight?</p> <p>Identifying and classifying: Can I sort different materials and objects into solids, liquids and gases? Observations over time: How does the level of water in a glass change when left on the windowsill?</p> <p>Pattern seeking: Can I find out how evaporation rates change as you add more salt to water?</p> <p>Research: Find out about the discovery of graphene and its uses.</p>	<ul style="list-style-type: none"> • Group materials together, according to whether they are solid, liquids or gases, including tricky ones like gels, foams, mists and pastes. • Demonstrate and explain 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) • Correctly talk about the part played by evaporation and condensation in the water cycle and can show a link between the rate of evaporation and temperature. 	<p>matter, solid, liquid, gas, evaporation, condensation, Celsius, molecules, reversible, irreversible, heating, cooling, state change, melting, freezing, melting point, boiling, boiling point, temperature, water cycle</p>
Living things and their habitats	<p>Identifying and classifying: Can I group living things using a Venn diagram?</p>	<ul style="list-style-type: none"> • To use a classification key to group a variety of living things? (plants, vertebrates, invertebrates). 	<p>Classification, classification keys, environment, human impact, positive, negative, migrate,</p>

	<p>Observation over time: Can I state how changes to the environment have affected endangered species?</p> <p>Pattern seeking: Can I identify invertebrates by identifying their similarities and differences?</p> <p>Research: Can I understand the importance of conservationists like Rachel Carson?</p>	<ul style="list-style-type: none"> • Compare the classification of common plants and animals to living things found in other places? (under the sea, prehistoric) • Name and group a variety of living things based on feeding patterns? (producer, consumer, predator, prey, herbivore, carnivore, omnivore) • Recognise that environments can change, and this can sometimes pose a danger to living things. 	<p>hibernate, organisms, life-processes, respiration, sensitivity, reproduction, excretion, nutrition, habitat, environment, endangered species, extinct, herbivore, carnivore, omnivore, producer, predator prey</p>
Electricity	<p>Fair testing: Can I find out which metal is the best conductor of electricity?</p> <p>Identifying and classifying: Can I group electrical devices based on where the electricity comes from?</p> <p>Observation over time: How long does a battery light a torch for?</p> <p>Pattern seeking: Can I find out which room has the most electrical sockets in a house?</p> <p>Research: Can I research and find key facts about Thomas Edison's inventions?</p>	<ul style="list-style-type: none"> • Identify common appliances that run on electricity. • Construct a simple series electric circuit. • Identify and name the basic part in a series circuit, 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. • Associate a switch opening with whether or not a lamp lights in a simple series circuit. • Recognise some common conductors and insulators. • Associate metals with being good conductors. 	<p>Electricity, electrical, appliance/device, mains, plug, electrical circuit, complete circuit, component, generate, renewable, non-renewable, appliance, battery (cell), circuit, electrons, insulator, conductor, switch, short circuit, positive, negative, connect, connections, lose connection, crocodile clip, bulb, buzzer, motor, conductor, insulator, metal, non-metal, symbol</p>

Year 5/6 End Points (2024-2025)			
Unit Title	Scientific Enquiry	Assessed outcomes	Vocabulary
Light	<p>Fair testing: Can I investigate whether light always travels in straight lines?</p> <p>Identifying and classifying: Can I group materials and objects according to how well they reflect light?</p> <p>Observation over time:</p>	<ul style="list-style-type: none"> • Recognise that light travels 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. 	<p>Light source, reflection, shadows, prism, refraction, transparent, translucent, opaque, angle of reflection, Dark, absence of light, surface, shadow, reflect, mirror, sun, sunlight, dangerous, straight lines, light rays, incident rays, spectrum</p>

	<p>Can I observe how a shadow changes over a day?</p> <p>Pattern seeking: Can I find out how the size of shadows change depending how close the object is to a light source.</p> <p>Research: Can I investigate the findings of Galileo?</p>		
Living things and their habitats	<p>Fair test: Can I find out how light/temperature affects how quickly mould grows?</p> <p>Identifying and classifying: Can I use a classification key to identify animals?</p> <p>Observation over time: Can I record the results of a bread investigation over 5 weeks?</p> <p>Pattern seeking: Can I find out where most invertebrates are found in our school grounds.</p> <p>Research: Can I research the different functions of microorganisms? Who was Carl Linnaeus?</p>	<ul style="list-style-type: none"> 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. Give reasons for classifying plants and animals based on specific characteristics. 	<p>micro-organism, classification, invertebrates, (insects, spiders, snails, worms), vertebrates (reptiles, fish, amphibians, birds and mammals. Carl Linnaeus, warm blooded, cold blooded, flowering, non-flowering, mosses, ferns, conifers</p>
Electricity	<p>Fair testing: Can I investigate how the voltage of the batteries in a circuit affect the brightness of the lamp/volume of a buzzer?</p> <p>Identifying and classifying: Can I group circuit components into those that are essential and those that are not?</p> <p>Observation over time: Can I describe how the brightness of a bulb changes as the battery runs out.</p> <p>Pattern seeking:</p>	<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. 	<p>buzzer, voltage, cells, circuit, components, current, amps, electrons, circuit diagram, circuit symbol</p>

	<p>How does the brightness of the bulb change as the battery runs out?</p> <p>Research: Can I find out how major discoveries affect our understanding and use of electricity?</p>		
Evolution and inheritance	<p>Fair testing: Can I investigate which beak size and shape is best for catching round insects?</p> <p>Identifying and classifying: Can I identify different types of fossil formation?</p> <p>Observation over time: Can I recognise how animals and plants have adapted to their environment?</p> <p>Pattern seeking: Research: Can I research into the importance of Charles Darwin's findings.</p>	<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. 	Evolution, fossils, environment, offspring, inheritance, variation, adaptation, adaptive traits, inherited traits, habitat, natural selection, sexual reproduction, vary, characteristics, inherited, species, evolve
Animals (including humans)	<p>Fair testing: Can I investigate weather? How does exercise affect our heart rate?</p> <p>Identifying and classifying: Can I identify the parts of the circulatory system?</p> <p>Observation over time: Can I keep a note of how much exercise I do in a week?</p> <p>Research: Can I research the amount of sugar in cereals? Who was Marie Maynard?</p>	<ul style="list-style-type: none"> Identify and name 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 way their bodies function. Describe the ways in which nutrients and water are transported within animals, including humans. 	Human circulatory system, blood vessels, oxygenated blood, internal organs (skeletal, muscular and digestive system, heart, pulse, rate, pumps, blood, transported, lungs, oxygen, carbon dioxide, cycle, diet, drugs, lifestyle

Year 5/6 End Points (2025 - 2026)

Unit Title	Scientific Enquiry	Assessed outcomes	Vocabulary
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<p>Animals (including humans)</p>	<p>Identifying and classifying: Can I describe all the stages of human development?</p> <p>Observation over time: Can I identify the changes that take place in old age?</p> <p>Pattern seeking: Is there a relationship between a mammal's size and its gestation period?</p> <p>Research: Who was Alexander Flemming? What is the impact of penicillin on humans and animals?</p>	<ul style="list-style-type: none"> • Describe the changes as humans develop to old age. • Describe the life process of reproduction in some plants and animals. • Report findings in the context of the gestation period for animals. 	<p>Puberty, life cycle, foetus, baby, child, adolescent, adult, reproduce, sexual, sperm, fertilises, egg, live young</p>
<p>Living things and their habitats</p>	<p>Identifying and classifying: Can I identify the parts of a plant and say which are male and female?</p> <p>Pattern seeking: Is there a relationship between the number of petals and number of stamens?</p> <p>Research: Can I analyse and compare the life cycle of plants, mammals, amphibians, insects and birds? Who was Eva Crane?</p>	<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. 	<p>Life cycle, reproduce, sexual, sperm, fertilises, egg, live young, metamorphosis, asexual, plantlets, runners, cuttings</p>
<p>Forces</p>	<p>Fair testing: Can I find out how the type of material used, affects how quickly a parachute falls to the ground?</p> <p>Identify and classify: Can I label and name all the forces acting on the object in each of these situations?</p> <p>Pattern seeking: Do all objects travel through water in the same way?</p> <p>Research: Can I find out why Sir Isacc Newton was an important scientist?</p>	<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. • Demonstrate the effects of air resistance, water resistance and friction, that act between moving surfaces. • Show that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. 	<p>Force, gravity, earth, air resistance, water resistance, friction, mechanism, simple machines, levers, pulleys, gears</p>
<p>Earth and Space</p>	<p>Observation over time: Can I explain the phases of the moon over a lunar month?</p>	<ul style="list-style-type: none"> • Describe the movement of the Earth, and other planets, relative to the Sun in the solar system. 	<p>Sun, moon, earth, planets (Mercury, Jupiter, Saturn, Venus,</p>

	<p>Pattern seeking: Can I investigate night and day length in different parts of the earth?</p> <p>Research: Can I and describe features of the planets in our solar system?</p> <p>Can I find out why Maria Mitchel is important to our understanding of Earth and Space today?</p>	<ul style="list-style-type: none"> • Identify and describe features of the planets in our solar system. • Describe the movement of the Moon relative to the Earth, explaining the different phases of the moon. • 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>Mars, Uranus, Neptune), spherical, solar system, rotate, star, orbit</p>
<p>Uses of Everyday Materials</p>	<p>Fair testing: Can I find out whether a cool bag keeps a hot potato bag compared with a hot potato left on a plate?</p> <p>Identifying and classifying: Can I group changes based on whether they are reversible or irreversible?</p> <p>Pattern seeking: Can I find out how the temperature of water affects how quickly something dissolves?</p> <p>Research: Can I find out which materials are recyclable? Who invented Kevlar and what are its uses?</p>	<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. • Understand 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 describe how mixtures might be separated, including through filtering, sieving and evaporating. • Give reasons, based on evidence from comparative and fair tests, for the 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. 	<p>Thermal insulator/ conductor, change of state, mixture, dissolve, solution, soluble, insoluble, filter, sieve, reversible/ non-reversible changes, burning, rusting, new material</p>