

Science – Key Vocabulary - Progression of Core Knowledge and Skills

The science knowledge and skills represented in this document are not exhaustive, but rather identify the core learning taught at Thwaites School to ensure the National Curriculum is covered in a deep and meaningful way, preparing our children for their next step in education by creating knowledgeable, skilful, competent and confident scientists.

Early Learning Goals

Communication and Language: Listening, Attention and Understanding

Make comments about what they have heard and ask questions to clarify their understanding.

Personal, Social and Emotional Development: Managing Self

Manage their own basic hygiene and personal needs, including dressing, going to the toilet and understanding the importance of healthy food choices.

Understanding the World: 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.

Understand some important processes and changes in the natural world around them, including the seasons and changing states of matter.

Golden Threads

A number of subjects across the curriculum have ‘golden threads’ running through them; themes that are revisited a number of times to allow for deeper knowledge and skills to be developed and embedded.

In Science our theme is:

- Water Studies – During the delivery of each curriculum, children will have multiple opportunities to study water. Each revisit to this theme will be different as it links seamlessly with the wider topics being taught. Children will study water first-hand in a variety of ways through ponds, streams, rivers, lakes, the sea and the weather.

Key Vocabulary

Key Stage One Vocabulary

Animals, Including Humans

head body skeleton limb joint brain eyelash eye sight pupil sound ear sign language vibration deafness tongue mouth taste flavour sweet touch fingertips skin organ smells odour nose nostril nose hair life cycle grow survive independent adult foetus womb helpless toddler develop offspring inherit gene resemble differences reproduction hatchling chick bar chart predict caterpillar transformation larva chrysalis metamorphosis frog amphibian frogspawn tadpole froglet survival shelter nutrition oxygen essential vital non-essential survive grow healthy protein carbohydrate dairy vitamins calcium fat balanced diet nutrients fresh food pre-cooked processed food exercise strength flexibility balance coordination hygiene prevent germs bacteria virus fish amphibian reptile mammal bird feather warm-blooded characteristic backbone hatchling amphibian reptile gills scale cold-blooded herbivore carnivore omnivore predator canines pet wild shelter veterinary natural similarities differences compare unsuitable climate

Everyday Materials

material property suitable object brick bridge triangle obstacle structure construction stretchy elastic floppy hinder limit bend twist squash stretch force mackintosh protective fluorescent safety waterproof John McAdam merchant bound highway road material fabric wood plastic metal object glass property brick elastic property opaque transparent dull stiff natural man-made factory rubber polyester predict float sink submerge buoyant absorbent sponge waterproof umbrella soak solid strong brick clay wind waterproof absorbent non-absorbent roof slate transparent opaque suitable window pane window frame fabric furniture cotton mattress soft wool weather jumper suitable waterproof evaluate material properties tile garden

Seasonal Changes

season spring summer autumn winter hibernate weather protect harvest frost sleet temperature compare changes grow chick warm sun protection heatwave rainfall measuring record results graph

Plants

seed plant tree soil stem petal leaf root flower environment weed daisy dandelion wild deciduous evergreen seasons branch bush supermarket fruit vegetable farm tractor growth seedling young plant adult plant seeds bulbs growth plant compare predict investigate control experiment method photosynthesis carbon dioxide oxygen glucose energy pollination life cycle germination reproduction seedling manure crop insulate thrive healthy forest desert adapt condition survive

Living Things and their Habitats

habitat microhabitat organism environment mate rainforest moisture extinct climate endangered biodiversity deforestation poaching pollution rainforest plankton ocean ecosystem coral reef trench Antarctic Arctic caribou narwhal tundra earthworm desert lizard cactus pond senses nutrition reproduce excrete respire habitat microhabitat fungi survive shelter antennae suitable condition colony insect producer consumer herbivore carnivore omnivore food chain life cycle nutrients rot caterpillar automated frozen food forklift truck refrigerated lorry canned

Key Vocabulary

Lower Key Stage Two Vocabulary

Animals, Including Humans

nutrition carbohydrate protein vitamin mineral nutrition label portion energy balanced diet vertebrate invertebrate endoskeleton exoskeleton hydrostatic skeleton humerus ulna radius tibia fibular endoskeleton vertebrate skull rib cage spine muscle contract hamstrings biceps diaphragm digestive system oesophagus stomach small intestine large intestine saliva peristalsis absorb liver gall bladder incisors canines molars jaw gum enamel plaque tooth decay cavity fluoride ecosystem producer consumer prey predator food web tundra hide interdependence threatened

Electricity

electricity batteries mains electricity appliance socket circuit series circuit component cell voltage current power battery wire bulb conductor insulator metal copper rubber switch current control complete circuit incomplete circuit non-renewable energy renewable energy wind turbines solar panels hydropower

Forces and Magnets

force contact force non-contact forces air resistance friction motion surface resistance texture tilt magnet attract repel bar magnet horseshoe magnet attract repel bar magnet horseshoe magnet magnetism magnetic magnetic field iron steel non-contact forces magnetism attract non-magnetic materials recycle compass magnetic needle magnetic north direction orienteering

Plants

nutrients fertiliser nursery potassium stunted chlorophyll stomata xylem photosynthesis UV light xylem phloem absorb stomata transpiration anther stigma style filament reproduction pollination pollen nectar seed dispersal pollinator germination vulnerable anchor sapling formation

Rocks

igneous rocks intrusive igneous rock extrusive igneous rock crystals magma sedimentary rock metamorphic rock limestone marble sandstone weathering chemical weathering physical weathering biological weathering acid rain appearance texture submerged erosion receding fossil extinct sediment embedded amber decompose fragments clay soil chalky soil sandy soil

Living Things and their Habitats

habitat microhabitat conditions adapted camouflage coastal grassland environment climate exposure classify characteristics vertebrate invertebrate species sub-groups identify criteria classification keys organism adapted region features colouring blubber ecosystem oxygenised flowering plant non-flowering plant pond dipping ecosystem Northern Hemisphere Southern Hemisphere migrate monsoon rainforest deforestation drought biodiversity recycling fossil fuels pollution greenhouse gases emissions climate change chemicals sewage contaminate pesticides water treatment plant conserve drought freshwater pure water butt endangered marine sanctuaries protect conservation areas recycling

Light

light source natural artificial reflect vitamin D ultraviolet rays sunburn exposure protection fluorescent high visibility reflective surface materials shadow opaque sundial rays blocks position cast opposite direction length size shape closer further puppet

States of Matter

matter solid liquid gas volume particle bond arranged cooled heated particle melting melting point temperature thermometer freezing reverse boiling sublimation deposition evaporation condensation absorb water vapour process water cycle precipitation surface runoff transpiration groundwater

Sound

vibration medium waves eardrum signals source energy particles echo vacuum materials reflect absorb insulate defenders volume decibels decibel metre amplitude power pitch high pitch low pitch instruments orchestra energy particles travel sound source fade

Key Vocabulary

Upper Key Stage Two Vocabulary

Properties of Materials

conductive magnetic durable transparent versatile thermal conduction molecules degrees Celsius (°C) insulator hardness force iron steel stone dissolve solute insoluble soluble solvent solute solvent solution substance saturation pure substance mixture filtering sieving evaporation

Light

light eye light source symbol scientific diagram reflected prediction fair test variable table periscope angle mirror line of sight utilise shadow block opaque transparent translucent plan sun shade real life problem rotate direction optical phenomena disperse spectrum refraction

Animals, Including Humans

foetus dependent adolescent puberty reproduce gestation pregnant duration extreme breeding womb umbilical cord embryo trimester midwife growth spurt childhood motor skills milk teeth constant adolescence puberty hormones mood swing develop lifestyle keratin elasticity cataracts neurodegenerative circulatory system atrium ventricle vessel valves artery vein capillary microscope blood plasma platelet white blood cell red blood cell absorb diffusion osmosis concentration nutrients diet exercise heart rate BPM pulse drug painkiller stimulant depressant hallucinogens

Earth and Space

terrestrial planet gas giant planets Solar System spherical orbit astronomy heliocentric geocentric dwarf planet orbit axis poles season hemisphere sundial time zone gnomon dial shadow moon phase waxing waning eclipse rocky planet gas planet moon orbit solar system

Living Things and their Habitats

classify microorganism fern living organism conifer kingdom MRS GREN cell multicellular unicellular Carl Linnaeus classification Latin species domain microorganism bacteria fungi virus protozoa plant microscopic fungi mycelium ecosystem classify living organism habitat reproduction asexual fertilisation tuber genes pouch mammary glands placental mammal monotreme mammal marsupial metamorphosis caterpillar amphibian larva pupa egg fledgling egg tooth hatch embryo documentary naturalist primatologist endangered natural sciences living organism reproduction life cycle vertebrate warm-blooded

Looking After the Environment

weather climate prevent global warming climate change recycle landfill rubbish biodegrade council net zero renewable non-renewable greenhouse gases emissions industrial revolution fossil fuel coal combustion fuel COP sustainability conference pledge subsidy species sensitive natural disaster habitat vulnerable

Electricity

symbol circuit circuit diagram battery wires electricity current voltage voltmeter brightness blown resistor variable resistor LED dimmer switch output variable fair test control test systematically synchronised traffic light signal sensor timer-based synchronised traffic light signal sensor timer-based

Forces

Sir Isaac Newton gravity astronomy weight mass Galileo Galilei air resistance opposing streamlined parachute water resistance streamlined up thrust buoyant sink friction resistance lubricant Newton meter Newton lever load pivot fulcrum pulley mechanism gear mesh rack and pinion bevel gear

Evolution and Inheritance

offspring characteristic inherit variation environmental adaptation habitat climate nutrition feature nutrients epiphytes toxic predators pollinate fossil Mary Anning Palaeontologist ichthyosaurus Jurassic coast Charles Darwin evolved extinct natural selection theory Charles Darwin evolved extinct natural selection theory

Changes of Materials

pure substance solute solvent solution evaporates reversible mixture physical change melting irreversible chemical change compare effervescence product fair test variable control variable corrosion rusting combustion fuel oxygen extinguish smother reaction predict acid bicarbonate of soda carbon dioxide

Year One and Year Two – Curriculum A

Autumn Term - One

Autumn Term – Two

Spring Term – One

Animals, Including Humans – All About Me

Uses of Everyday Materials

Seasonal Changes

<p>National Curriculum Coverage</p> <p>I know how to identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense in the context of:</p> <p>discovering the basic parts of the human body</p> <p>learning about eyes and sight</p> <p>learning about ears and hearing</p> <p>exploring the tongue and taste</p> <p>exploring the sense of touch</p> <p>discovering how your nose smells</p> <p>I know how to identify and classify</p> <p>I know how to perform simple tests</p> <p>I know how to gather and record data to help in answering questions</p> <p>I know how to use observations and ideas to suggest answers to questions</p> <p>Year One Knowledge and Skills</p> <p>I can identify the basic body parts of the human body with support</p> <p>I can name the basic body parts of the human body with support</p> <p>I can label basic body parts of the human body with support</p> <p>I know we use our eyes to see</p> <p>I know we use our ears to hear</p> <p>I know we use our tongue to taste</p> <p>I know how we feel touch</p> <p>I know we use our nose to smell</p> <p>I can identify and classify body parts with support</p> <p>I can perform a simple test to investigate sight</p> <p>I can gather and record data to help answer questions about eyes and sight with support</p> <p>I can perform a simple test to investigate hearing</p> <p>I can gather and record data to help answer questions about ears and hearing with support</p> <p>I can use observations and ideas to suggest answers to questions about the tongue and taste with support</p> <p>I can gather and record data to help answer questions about touch with support</p> <p>I can identify and classify smells with support</p> <p>Year Two Knowledge and Skills</p> <p>I can independently identify the basic body parts of the human body with growing confidence</p> <p>I can independently name the basic body parts of the human body with growing confidence</p>	<p>National Curriculum Coverage</p> <p>I know how to identify and compare the suitability of a variety of everyday materials in the context of:</p> <p>identify different materials and their uses</p> <p>understanding how to select the right materials to build a bridge</p> <p>finding out about Charles Macintosh</p> <p>exploring how materials are suitable for different purposes</p> <p>discovering which materials change shape</p> <p>I know how to find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching in the context of:</p> <p>exploring and testing the stretchiness of materials</p> <p>understanding that materials can change their shape</p> <p>I know how to use my observations and ideas to suggest answers to questions</p> <p>I know how to perform simple tests</p> <p>I know how to gather and record data to help in answering questions</p> <p>Year One Knowledge and Skills</p> <p>I can identify different materials</p> <p>I can use my observations and ideas of objects around the classroom to suggest answers to questions</p> <p>I understand why it is important to select the right materials to build a bridge</p> <p>I can perform a simple test to determine a suitable material for bridge building</p> <p>I can explore and test the stretchiness of materials</p> <p>I can gather and record data to help me answer questions about materials and their properties with support</p> <p>I understand that materials can change their shape by twisting, bending, squashing or stretching</p> <p>I can use my observations and ideas to suggest answers to questions about materials and their properties with support</p> <p>I can find out about Charles Macintosh</p> <p>I can explore how materials are suitable for different purposes</p> <p>I can perform a simple test to determine how different materials are suitable for different purposes with support</p> <p>I can investigate which materials change shape when making a road with John McAdam</p> <p>I can perform a simple test to determine which materials change shape with support</p> <p>Year Two Knowledge and Skills</p>	<p>National Curriculum Coverage</p> <p>I know how to observe changes across the four seasons in the context of:</p> <p>understanding there are four seasons</p> <p>understanding the changes that take place over the four seasons</p> <p>I know how to observe and describe weather associated with the seasons and how day length varies in the context of:</p> <p>understanding the changes that take place over the four seasons</p> <p>investigating rainfall</p> <p>I know how to use my observations and ideas to suggest answers to question</p> <p>I know how to identify and classify</p> <p>I know how to perform simple tests</p> <p>I know how to gather and record data to help in answering questions</p> <p>Year One Knowledge and Skills</p> <p>I understand there are four seasons</p> <p>I can use my observations and ideas to suggest answers to question about the seasons</p> <p>I understand the changes that take place in autumn</p> <p>I can use my observations and ideas to suggest answers to question about rain</p> <p>I understand the changes that take place in winter</p> <p>I understand the changes that take place in spring</p> <p>I can identify and classify changes across the four seasons</p> <p>I understand the changes that take place in summer</p> <p>I can investigate how to measure rainfall</p> <p>I can perform a simple test to investigate rainfall over a period of time</p> <p>Year Two Knowledge and Skills</p> <p>I understand there are four seasons and can explain some differences using the correct scientific vocabulary</p> <p>I can use my observations and ideas to answer scientific questions about the seasons</p> <p>I understand, and can explain the changes that take place in autumn using the correct scientific vocabulary</p> <p>I can use my observations and ideas to answer scientific questions about rain</p> <p>I understand, and can explain the changes that take place in winter using the correct scientific vocabulary</p> <p>I understand, and can explain the changes that take place in spring using the correct scientific vocabulary</p>
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<p>I can independently label basic body parts of the human body with growing confidence</p> <p>I can explain how we use our eyes to see</p> <p>I can explain how we use our ears to hear</p> <p>I can explain how we use our tongue to taste</p> <p>I can explain how we feel touch</p> <p>I can explain how we use our nose to smell</p> <p>I can independently identify and classify body parts, explaining my choices</p> <p>I can perform a simple test to investigate sight and explain my findings</p> <p>I can independently gather and record data to help answer questions about eyes and sight</p> <p>I can perform a simple test to investigate hearing and explain my findings</p> <p>I can independently gather and record data to help answer questions about ears and hearing</p> <p>I can independently use observations and ideas to suggest answers to questions about the tongue and taste</p> <p>I can independently gather and record data to help answer questions about touch with growing confidence</p> <p>I can independently identify and classify smells, explaining my choices</p>	<p>I can identify different materials and explain their uses</p> <p>I can use my observations and ideas of objects around the classroom to answer scientific questions</p> <p>I can select the right materials to build a bridge, explaining my choices</p> <p>I can perform a simple test to determine a suitable material for bridge building and explain my findings</p> <p>I can investigate the stretchiness of materials and explain my findings using the correct scientific vocabulary</p> <p>I can gather and record data to help me answer questions about materials and their properties</p> <p>I understand, and can explain that materials can change their shape by twisting, bending, squashing or stretching using the correct scientific vocabulary</p> <p>I can use my observations and ideas to answer scientific questions about materials and their properties</p> <p>I can explain who Charles Macintosh was</p> <p>I can explain how materials are suitable for different purposes using the correct scientific vocabulary</p> <p>I can perform a simple test to determine how different materials are suitable for different purposes and explain my findings</p> <p>I can investigate which materials change shape when making a road with John McAdam and explain my findings using the correct scientific vocabulary</p> <p>I can perform a simple test to determine which materials change shape and explain my findings</p>	<p>I can identify and classify changes across the four seasons explaining my choices</p> <p>I understand, and can explain the changes that take place in summer using the correct scientific vocabulary</p> <p>I can investigate how to measure rainfall and explain my findings using the correct scientific vocabulary</p> <p>I can perform a simple test to investigate rainfall over a period of time and explain my findings using the correct scientific vocabulary</p>
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Year One and Year Two – Curriculum A

<p>Spring Term – Two</p>	<p>Summer Term – One</p>	<p>Summer Term - Two</p>
<p>Plants</p>	<p>Animals, Including Humans – Life Cycles</p>	<p>Exploring Everyday Materials</p>

<p>National Curriculum Coverage</p> <p>I am becoming familiar with common names of flowers and plant structures including seeds in the context of:</p> <p>understanding that seeds grow into plants</p> <p>Identifying the basic parts of a plant and tree</p> <p>I know how to identify and describe the basic structure of a variety of common flowering plants, including trees in the context of:</p> <p>Identifying the basic parts of a plant and tree</p> <p>I know how to identify and name a variety of common wild and garden plants in the context of:</p> <p>understanding that different plants can grow in the same environment</p>	<p>National Curriculum Coverage</p> <p>I know that that animals, including humans, have offspring which grow into adults in the context of:</p> <p>the life cycle of humans</p> <p>the life cycle of chickens</p> <p>the life cycle of butterflies</p> <p>the life cycle of frogs</p> <p>matching parent to offspring</p> <p>I know how to identify and classify</p> <p>I know how to use my observations and ideas to suggest answers to questions</p>	<p>National Curriculum Coverage</p> <p>I know how to identify and name a variety of everyday materials, including wood, plastic, glass, metal, water and rock in the context of:</p> <p>identifying and naming a variety of everyday materials</p> <p>I know how to distinguish between an object and the material it is made from in the context of:</p> <p>distinguishing between an object and the material it is made from</p> <p>I know how to describe the simple physical properties of a variety of everyday materials in the context of:</p> <p>describing the properties of everyday materials</p> <p>exploring which materials are best for different objects</p>
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<p>I know how to identify and name a variety of deciduous and evergreen trees in the context of: knowing the difference between deciduous and evergreen trees</p> <p>I understand how plants change over time in the context of: knowing that fruit trees and vegetables are varieties of plants</p> <p>I know how to observe the growth of planted flowers in the context of: recording the growth of a plant</p> <p>I am becoming familiar with plant structures in the context of: recording the growth of a plant</p> <p>I know how to keep records of how plants change over time in the context of: recording the growth of a plant</p> <p>I know how to ask simple questions</p> <p>I know how to observe closely and use simple equipment</p> <p>I know how to use my observations and ideas to suggest answers to questions</p> <p>I know how to identify and classify</p> <p>I know how to gather and record data to help in answering questions</p> <p>Year One Knowledge and Skills</p> <p>I understand that seeds grow into plants</p> <p>I can ask simple questions about seeds growing into plants</p> <p>I can observe closely and use simple equipment to plant seeds</p> <p>I can use my observations and ideas to suggest answers to questions about seeds and plants</p> <p>I can identify the basic parts of a plant and tree</p> <p>I can identify and classify the parts of a plant and a tree with support</p> <p>I understand that different plants can grow in the same environment</p> <p>I can identify and classify plants and trees in an outdoor environment with support</p> <p>I can gather and record data about plants and trees in an outdoor environment with support</p> <p>I know the difference between deciduous and evergreen trees</p> <p>I can observe a variety of leaves from deciduous and evergreen trees closely, using simple equipment</p> <p>I know that fruit trees and vegetables are varieties of plants</p> <p>I can closely observe the structure and seeds of different fruits and vegetables</p> <p>I can identify and classify different fruits and vegetables with support</p> <p>I can use my observations and ideas to suggest answers to questions about different fruits and vegetables</p>	<p>I know how to gather and record data to help in answering questions</p> <p>I know how to ask simple questions and recognise that they can be answered in different ways</p> <p>Year One Knowledge and Skills</p> <p>I can order the stages of the human life cycle with help</p> <p>I can identify and classify the stages of the human life cycle with help</p> <p>I can describe the stages of a human life cycle with help</p> <p>I can identify the offspring and parent of an animal</p> <p>I can use my observations and ideas to suggest answers to questions about parents and offspring with support</p> <p>I can explore the life cycle of a chicken</p> <p>I can gather and record data to help in answering questions about hatching chicks</p> <p>I can explore the life cycle of a butterfly</p> <p>I can ask simple questions about the life cycle of a butterfly and recognise that they can be answered in different ways</p> <p>I can explore the life cycle of a frog</p> <p>I can use my observations and ideas to suggest answers to questions about the life cycle of a frog</p> <p>Year Two Knowledge and Skills</p> <p>I can independently order and explain the stages of the human life cycle using the correct scientific vocabulary</p> <p>I can independently identify and classify the stages of the human life cycle</p> <p>I can independently describe the stages of a human life cycle using the correct scientific vocabulary</p> <p>I can identify the offspring and parent of an animal, explaining similarities and differences using the correct scientific vocabulary</p> <p>I can use my observations and ideas to answer scientific questions about parents and offspring</p> <p>I can explain the life cycle of a chicken using the correct scientific vocabulary</p> <p>I can gather and record data to answer scientific questions about hatching chicks</p> <p>I can explain the life cycle of a butterfly using the correct scientific vocabulary</p> <p>I can ask questions about the life cycle of a butterfly and recognise that they can be answered in different ways</p> <p>I can explain the life cycle of a frog using the correct scientific vocabulary</p> <p>I can use my observations and ideas to answer scientific questions about the life cycle of a frog</p>	<p>I know how to compare and group together a variety of everyday materials on the basis of their simple physical properties in the context of: identifying objects that are natural and those that are manmade predicting and identifying if an object will float or sink</p> <p>I know how to identify and classify</p> <p>I know how to use observations and ideas to suggest answers to questions</p> <p>I know how to perform simple tests</p> <p>I know how to gather and record data to help in answering questions</p> <p>Year One Knowledge and Skills</p> <p>I can identify and name a variety of everyday materials with help</p> <p>I can identify and classify materials</p> <p>I can distinguish between an object and the material it is made from with help</p> <p>I can use observations and ideas to suggest answers to questions about objects and the materials they are made from</p> <p>I can describe the properties of everyday materials</p> <p>I can perform simple tests based on materials and their properties with support</p> <p>I can gather and record data to help in answering questions about materials and their properties with support</p> <p>I can identify some objects that are natural and some that are manmade</p> <p>I can identify and classify natural and manmade objects with help</p> <p>I can predict and identify if an object will float or sink with support</p> <p>I can perform a simple test to determine if a material floats or sinks</p> <p>I can explore which materials are best for different objects</p> <p>I can perform simple tests to determine the suitability of materials for different objects with support</p> <p>I can identify and classify materials based on their suitability for different objects</p> <p>I can use observations and ideas to suggest answers to questions about materials and their suitability for different objects</p> <p>I can gather and record data to help in answering questions about materials and their suitability for different objects</p> <p>Year Two Knowledge and Skills</p> <p>I can independently identify and name a variety of everyday materials with increasing confidence</p> <p>I can identify and classify materials, explaining my choices</p> <p>I can independently distinguish between an object and the material it is made from with increasing confidence</p>
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I can gather and record data to help in answering questions about different fruits and vegetables

I can closely observe the growth of a plant

I can gather and record data on the growth of a plant

Year Two Knowledge and Skills

I understand, and can explain that seeds grow into plants using the correct scientific vocabulary

I can ask increasingly complex questions about seeds growing into plants

I can observe closely and use simple equipment to plant seeds, predicting what I think will happen and why

I can use my observations and ideas to answer scientific questions about seeds and plants

I can identify the basic parts of a plant and tree, explaining comparisons between the two using the correct scientific vocabulary

I can independently identify and classify the parts of a plant and a tree

I understand, and can explain that different plants can grow in the same environment using the correct scientific vocabulary

I can independently identify and classify plants and trees in an outdoor environment

I can independently gather and record data about plants and trees in an outdoor environment

I know, and can explain the difference between deciduous and evergreen trees using the correct scientific vocabulary

I can observe a variety of leaves from deciduous and evergreen trees closely, using simple equipment, explaining their similarities and differences using the correct scientific vocabulary

I know that fruit trees and vegetables are varieties of plants and can give several examples of each

I can closely observe the structure and seeds of different fruits and vegetables, explaining my findings using the correct scientific vocabulary

I can independently identify and classify different fruits and vegetables

I can use my observations and ideas to answer scientific questions about different fruits and vegetables

I can gather and record data to answer questions about different fruits and vegetables

I can closely observe the growth of a plant and explain changes over time using the correct scientific vocabulary

I can gather and record data on the growth of a plant, explaining my findings using the correct scientific vocabulary

I can use observations and ideas to answer scientific questions about objects and the materials they are made from using the correct scientific language

I can independently describe the properties of everyday materials using the correct scientific language

I can independently perform simple tests based on materials and their properties

I can independently gather and record data to help in answering questions about materials and their properties

I am becoming increasingly confident in identify objects that are natural and those that are manmade, explaining my choices

I can correctly identify and classify natural and manmade objects with increasing confidence

I can independently predict and identify if an object will float or sink with increasing accuracy

I can perform a simple test to determine if a material floats or sinks, giving reasons for my choices

I can explore which materials are best for different objects, giving reasons for my choices

I can independently perform simple tests to determine the suitability of materials for different objects

I can identify and classify materials based on their suitability for different objects, explaining my choices

I can use observations and ideas to answer scientific questions about materials and their suitability for different objects

I can gather and record data to answer scientific questions about materials and their suitability for different objects

Autumn Term - One	Autumn Term – Two	Spring Term – One
Animals, Including Humans – Health and Survival	Exploring Everyday Materials - Building	Living Things and Their Habitats – Habitats Around the World
<p>National Curriculum Coverage</p> <p>I can find out about and describe the basic needs of animals, including humans, for survival (water, food and air) in the context of:</p> <ul style="list-style-type: none"> the needs of animals for survival the needs of humans, for survival <p>I can describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene in the context of:</p> <ul style="list-style-type: none"> the importance of eating the right food a healthy, balanced diet the impact of exercise on our bodies the importance of hygiene <p>I know how to use my observations and ideas to suggest answers to questions</p> <p>I know how to identify and classify</p> <p>I know how to perform simple tests</p> <p>Year One Knowledge and Skills</p> <ul style="list-style-type: none"> I can describe some needs of animals for survival with help I can use observations and ideas to suggest answers to questions about what animals need to survive with help I can describe some needs of humans for survival with help I can use observations and ideas to suggest answers to questions about what humans need to survive with help I can explore the importance of eating the right food I am beginning to identify and classify foods in food groups I can describe what a healthy, balanced diet looks like with support I can use observations and ideas to suggest answers to questions about a health, balanced diet I can investigate the impact of exercise on our bodies with help I can perform a simple test to determine how exercise affects my body I can use observations and ideas to suggest answers to questions about how exercise affects my body I can investigate the importance of hygiene I can perform a simple test to determine the importance of hygiene with help <p>Year Two Knowledge and Skills</p> <ul style="list-style-type: none"> I can describe the needs of animals for survival with growing confidence 	<p>National Curriculum Coverage</p> <p>I know how to describe the simple physical properties of everyday materials in the context of:</p> <ul style="list-style-type: none"> building a structure strong enough to withstand wind understanding the properties of glass and its uses understanding that materials are used to create a variety of furniture explaining the uses of materials and why they are suitable <p>I know how to compare and group together a variety of everyday materials on the basis of their simple physical properties in the context of:</p> <ul style="list-style-type: none"> building a waterproof structure exploring a variety of fabrics and understanding their different properties <p>I know how to perform simple tests</p> <p>I know how to use observations and ideas to suggest answers to questions</p> <p>I know how to identify and classify</p> <p>Year One Knowledge and Skills</p> <ul style="list-style-type: none"> I can build a structure strong enough to withstand wind with support I can perform a simple test to determine which material/materials make the strongest structure with help I can build a waterproof structure with support I can perform a simple test to determine which material/materials are the most waterproof I understand the some of the properties of glass and some uses I can use observations and ideas to suggest answers to questions about glass, it’s properties and it’s uses I understand that materials are used to create a variety of furniture I can use observations and ideas to suggest answers to questions about the materials used to create furniture I can explore a variety of fabrics and understand their different properties with support I can identify and classify a variety of fabrics based on their suitability as clothes we wear in different environments/weathers I can explain the uses of materials and why they are suitable with support I can use observations and ideas to suggest answers to questions about different materials being suitable for different purposes <p>Year Two Knowledge and Skills</p>	<p>National Curriculum Coverage</p> <p>I can 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 in the context of:</p> <ul style="list-style-type: none"> learning about habitats environments constantly changing the rainforest and its problems life in the ocean the Arctic and Antarctic habitat creating a model of a habitat <p>I can identify and name a variety of plants and animals in their habitats, including microhabitats in the context of:</p> <ul style="list-style-type: none"> the rainforest and its problems life in the ocean the Arctic and Antarctic habitat creating a model of a habitat <p>I know how to identify and classify</p> <p>I know how to use my observations and ideas to suggest answers to questions</p> <p>I know how to gather and record data to help in answering questions</p> <p>I know how to ask simple questions and recognise that they can be answered in different ways</p> <p>Year One Knowledge and Skills</p> <ul style="list-style-type: none"> I can learn about habitats with support I can identify and classify animals and their habitats with help I can use my observations and ideas to suggest answers to questions about animals and their habitats I am beginning to appreciate that environments are constantly changing I can gather and record data to help in answering questions about how environments change with support <p>I can explore the rainforest and I’m beginning to understand some of its problems</p> <p>I can use my observations and ideas to suggest answers to questions about the rainforest</p> <p>I can describe life in the ocean with support</p>

<p>I can use observations and ideas to answer scientific questions about what animals need to survive</p> <p>I can describe the needs of humans for survival with growing confidence</p> <p>I can use observations and ideas to answer scientific questions about what humans need to survive</p> <p>I can explain the importance of eating the right food using the correct scientific vocabulary</p> <p>I can identify and classify foods in food groups and explain why each food group is important</p> <p>I can independently describe what a healthy, balanced diet looks like using the correct scientific vocabulary</p> <p>I can use observations and ideas to answer scientific questions about a health, balanced diet</p> <p>I can investigate and explain the impact of exercise on our bodies using the correct scientific vocabulary</p> <p>I can perform a simple test to determine how exercise affects my body and explain each effect using the correct scientific vocabulary</p> <p>I can use observations and ideas to answer scientific to questions about how exercise affects my body</p> <p>I can investigate and explain the importance of hygiene using the correct scientific vocabulary</p> <p>I can independently perform a simple test to determine the importance of hygiene</p>	<p>I can independently choose materials to build a structure strong enough to withstand wind</p> <p>I can perform a simple test to determine which material/materials make the strongest structure, explaining my choices using the correct scientific vocabulary</p> <p>I can independently choose materials to build a waterproof structure</p> <p>I can perform a simple test to determine which material/materials are the most waterproof, explaining my choices using the correct scientific vocabulary</p> <p>I understand and can explain the properties of glass and list several of its uses</p> <p>I can use observations and ideas to answer scientific questions about glass, it's properties and it's uses</p> <p>I understand which materials are used to create a variety of furniture and how they are sometimes combined for both strength and aesthetics</p> <p>I can use observations and ideas to answer scientific questions about the materials used to create furniture</p> <p>I can investigate a variety of fabrics and explain their different properties using the correct scientific vocabulary</p> <p>I can identify and classify a variety of fabrics based on their suitability as clothes we wear in different environments/weathers, explaining why using the correct scientific vocabulary</p> <p>I can independently explain the uses of materials and why they are suitable using the correct scientific vocabulary</p> <p>I can use observations and ideas to answer scientific questions about different materials being suitable for different purposes</p>	<p>I can ask simple questions about life in the ocean and I'm beginning to understand that they can be answered in different ways</p> <p>I can explore the Arctic and Antarctic habitat with help</p> <p>I can identify and classify animals and their habitats in the Arctic and Antarctic with help</p> <p>I create a model of a habitat with help</p> <p>I can use my observations and ideas to suggest answers to questions about suitable habitats for a variety of creatures with help</p> <p>Year Two Knowledge and Skills</p> <p>I can explain what I have learnt about habitats using the correct scientific vocabulary</p> <p>I can identify and classify animals and their habitats, explaining my choices using the correct scientific vocabulary</p> <p>I can use my observations and ideas to answer scientific questions about animals and their habitats</p> <p>I can explain what I have learnt about environments constantly changing using the correct scientific vocabulary</p> <p>I can independently gather and record data to answer questions about how environments change</p> <p>I can research the rainforest and explain some of its problems using the correct scientific vocabulary</p> <p>I can use my observations and ideas to answer scientific questions about the rainforest</p> <p>I can describe life in the ocean in increasing detail using the correct scientific vocabulary</p> <p>I can ask simple questions about life in the ocean and I recognise that they can be answered in different ways</p> <p>I can investigate the Arctic and Antarctic habitat and explain what I find using the correct scientific vocabulary</p> <p>I can identify and classify animals and their habitats in the Arctic and Antarctic, explaining my choices using the correct scientific vocabulary</p> <p>I can independently create a model of a habitat and explain it confidently using the correct scientific vocabulary</p> <p>I can use my observations and ideas to answer scientific questions about suitable habitats for a variety of creatures</p>
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Year One and Year Two – Curriculum B

Spring Term – Two	Summer Term – One	Summer Term - Two
Plants	Animals, Including Humans – All About Animals	Living Things and Their Habitats
National Curriculum Coverage	National Curriculum Coverage	National Curriculum Coverage

<p>I know how to observe and describe how seeds and bulbs grow into mature plants in the context of: the difference between seeds and bulbs observing and recording the growth of plants over time</p> <p>I know how to find out and describe how plants need water, light and a suitable temperature to grow and stay healthy in the context of: designing an experiment to find out what plants need to grow describing what plants need to grow and stay healthy plants adapting to suit their environment</p> <p>I understand the requirements of plants for germination, growth and survival, as well as, the processes of reproduction and growth in plants in the context of: describing the life cycle of a plant</p> <p>I know how to identify and classify</p> <p>I know how to observe closely, using simple equipment</p> <p>I know how to ask simple questions and recognise that they can be answered in different ways</p> <p>I know how to perform simple tests</p> <p>I know how to use my observations and ideas to suggest answers to questions</p> <p>I know how to gather and record data to help in answering questions</p>	<p>I know how to identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals in the context of: animal families the types of food living things eat the characteristics of an animal</p> <p>I know how to describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) in the context of: the differences between mammals and birds the differences between amphibians, reptiles and fish the difference between wild animals and pets</p> <p>I know how to group and sort</p> <p>I know how to use observations and ideas to suggest answers to questions</p>	<p>I know how to explore and compare the differences between things that are living, dead, and things that have never been alive Exploring and comparing the differences between things that are living, dead, and things that have never been alive</p> <p>I know how to identify and name a variety of plants and animals in their habitats, including microhabitats in the context of: identifying and naming a variety of plants and animals in a microhabitat designing a suitable microhabitat where living things could survive</p> <p>I know how to describe how animals obtain their food from plants and other animals in the context of: finding out what animals eat to survive in their habitats</p> <p>I know how to describe how animals obtain their food from plants and other animals, using the idea of a simple food chain in the context of: understanding a food chain</p> <p>I know how to identify and name different sources of food in the context of: understanding the journey food makes from the farm to the supermarket</p> <p>I know how to identify and classify</p> <p>I know how to observe closely, using simple equipment</p> <p>I know how to use my observations and ideas to suggest answers to questions</p> <p>I know how to ask simple questions and recognise that they can be answered in different ways</p> <p>I know how to gather and record data to help in answering questions</p>
<p>Year One Knowledge and Skills</p> <p>I know the difference between seeds and bulbs</p> <p>I can identify and classify a variety of seeds and bulbs with help</p> <p>I can closely observe a variety of seeds and bulbs, using simple equipment with help</p> <p>I can attempt to design an experiment to find out what plants need to grow with help</p> <p>I can ask simple questions and I am beginning to understand that they can be answered in different ways about what plants need to grow</p> <p>I can describe some things plants need to grow and stay healthy</p> <p>I can perform a simple test to determine what plants need to grow and stay healthy with help</p> <p>I can use my observations and ideas to suggest answers to questions about what plants need to grow and stay healthy</p> <p>I am beginning to understand the life cycle of a plant</p> <p>I can use my observations and ideas to suggest answers to questions about the life cycle of a plant</p> <p>I can perform a simple test to observe and record the growth of plants over time with support</p>	<p>Year One Knowledge and Skills</p> <p>I can learn about animal families</p> <p>I can group and sort animal families with support</p> <p>I can learn about the differences between mammals and birds</p> <p>I can use observations and ideas to suggest answers to questions about mammals and birds</p> <p>I can group and sort mammals and birds with support</p> <p>I can learn about the differences between amphibians, reptiles and fish</p> <p>I can use observations and ideas to suggest answers to questions about amphibians, reptiles and fish</p> <p>I can group and sort amphibians, reptiles and fish with support</p> <p>I can discover the types of food living things eat with support</p> <p>I can use observations and ideas to suggest answers to questions about the food living things eat</p> <p>I can group and sort food living things eat with support</p> <p>I can explore the difference between wild animals and pets with support</p> <p>I can use observations and ideas to suggest answers to questions about wild animals and pets</p> <p>I can group and sort wild animals and pets with support</p> <p>I can explain the characteristics of an animal with help</p> <p>I can use observations and ideas to suggest answers to questions about the characteristics of an animal</p> <p>I can group and sort animals based on their characteristics with support</p> <p>Year Two Knowledge and Skills</p> <p>I can explain what I have learnt about animal families using the correct scientific vocabulary</p>	<p>Year One Knowledge and Skills</p> <p>I can explore and compare the differences between things that are living, dead, and things that have never been alive with help</p> <p>I can identify and classify things that are living, dead, and things that have never been alive with help</p> <p>I can identify and name a variety of plants and animals in a microhabitat with help</p> <p>I can closely observe plants and animals in a microhabitat using simple equipment with help</p> <p>I can design a suitable microhabitat where living things could survive with help</p> <p>I can use my observations and ideas to suggest answers to questions about microhabitats</p> <p>I can research what animals eat to survive in their habitats with help</p> <p>I can ask simple questions and I am beginning to understand that they can be answered in different ways about what animals eat to survive in their habitats</p>

<p>I can use my observations and ideas to suggest answers to questions about the growth of plants</p> <p>I can gather and record data to help in answering questions about the growth of plants</p> <p>I am beginning to understand that plants adapt to suit their environment</p> <p>I can identify and classify plants from different environments with help</p> <p>Year Two Knowledge and Skills</p> <p>I know and can explain the difference between seeds and bulbs using the correct scientific vocabulary</p> <p>I can identify and classify a variety of seeds and bulbs explaining my choices using the correct scientific vocabulary</p> <p>I can closely observe a variety of seeds and bulbs, using simple equipment and explain my findings using the correct scientific vocabulary</p> <p>I can independently design an experiment to find out what plants need to grow</p> <p>I can ask simple questions and recognise that they can be answered in different ways about what plants need to grow</p> <p>I can describe what plants need to grow and stay healthy with increasing confidence using the correct scientific vocabulary</p> <p>I can independently perform a simple test to determine what plants need to grow and stay healthy</p> <p>I can use my observations and ideas to answer scientific questions about what plants need to grow and stay healthy</p> <p>I can describe the life cycle of a plant using the correct scientific vocabulary</p> <p>I can use my observations and ideas to answer scientific to questions about the life cycle of a plant</p> <p>I can independently perform a simple test to observe and record the growth of plants over time</p> <p>I can use my observations and ideas to answer scientific questions about the growth of plants</p> <p>Gathering and recording data to help in answering questions</p> <p>I understand and can explain that plants adapt to suit their environment using the correct scientific vocabulary</p> <p>I can independently identify and classify plants from different environments, explaining my choices using the correct scientific vocabulary</p>	<p>I can group and sort animal families, explaining my choices using the correct scientific vocabulary</p> <p>I can explain what I have learnt about the differences between mammals and birds using the correct scientific vocabulary</p> <p>I can use observations and ideas to answer scientific questions about mammals and birds</p> <p>I can group and sort mammals and birds, explaining my choices using the correct scientific vocabulary</p> <p>I can explain what I have learnt about the differences between amphibians, reptiles and fish using the correct scientific vocabulary</p> <p>I can use observations and ideas to answer scientific questions about amphibians, reptiles and fish</p> <p>I can group and sort amphibians, reptiles and fish, explaining my choices using the correct scientific vocabulary</p> <p>I can investigate and explain the types of food living things eat using the correct scientific vocabulary</p> <p>I can use observations and ideas to answer scientific questions about the food living things eat</p> <p>I can group and sort food living things eat, explaining my choices using the correct scientific vocabulary</p> <p>I can investigate and explain the difference between wild animals and pets using the correct scientific vocabulary</p> <p>I can use observations and ideas to answer scientific questions about wild animals and pets</p> <p>I can group and sort wild animals and pets, explaining my choices using the correct scientific vocabulary</p> <p>I can confidently explain the characteristics of an animal using the correct scientific vocabulary</p> <p>I can use observations and ideas to answer scientific questions about the characteristics of an animal</p> <p>I can group and sort animals based on their characteristics, explaining my choices using the correct scientific vocabulary</p>	<p>I can gather and record data to help in answering questions what animals eat to survive in their habitats</p> <p>I can learn about a food chain with help</p> <p>I can use my observations and ideas to suggest answers to questions about food chains</p> <p>I understand the journey food makes from the farm to the supermarket</p> <p>I can use my observations and ideas to suggest answers to questions about the journey food makes</p> <p>Year Two Knowledge and Skills</p> <p>I can explore and compare the differences between things that are living, dead, and things that have never been alive with growing confidence and explain what I know using the correct scientific vocabulary</p> <p>I can identify and classify things that are living, dead, and things that have never been alive, explaining my choices and using the correct scientific vocabulary</p> <p>I can independently identify and name a variety of plants and animals in a microhabitat</p> <p>I can closely observe plants and animals in a microhabitat using simple equipment, explaining what I find using the correct scientific vocabulary</p> <p>I can independently design a suitable microhabitat where living things could survive, explaining my design using the correct scientific vocabulary</p> <p>I can use my observations and ideas to answer scientific questions about microhabitats</p> <p>I can research what animals eat to survive in their habitats, explaining what I find using the correct scientific vocabulary</p> <p>I can ask simple questions and recognise that they can be answered in different ways about what animals eat to survive in their habitats</p> <p>I can gather and record data to answer scientific questions what animals eat to survive in their habitats</p> <p>I can explain a food chain using the correct scientific vocabulary</p> <p>I can use my observations and ideas to answer scientific questions about food chains</p> <p>I understand and can explain the journey food makes from the farm to the supermarket using the correct scientific vocabulary</p> <p>I can use my observations and ideas to answer scientific questions about the journey food makes</p>
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Year Three and Year Four – Curriculum A

<p>Autumn Term - One</p>	<p>Autumn Term – Two</p>	<p>Spring Term – One</p>
<p>Animals, Including Humans</p>	<p>Electricity</p>	<p>Forces and Magnets</p>
<p>National Curriculum Coverage</p>	<p>National Curriculum Coverage</p>	<p>National Curriculum Coverage</p>

<p>I identify that animals, including humans, need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat in the context of:</p> <p>the 5 key food groups</p> <p>nutrition in the food we eat</p> <p>I identify that humans and some other animals have skeletons and muscles for support, protection and movement in the context of:</p> <p>the human skeleton</p> <p>animals and their skeletons</p> <p>the role of muscles</p> <p>I know how to gather, record, classify and present data in a variety of ways to help in answering questions</p> <p>I know how to use straightforward scientific evidence to answer questions or to support my findings</p> <p>I know how to report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</p> <p>I know how to record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables</p> <p>I know how to identify differences, similarities or changes related to simple scientific ideas and processes</p> <p>Year Three Knowledge and Skills</p> <p>I can explore the 5 key food groups</p> <p>With some help, I can gather, record, classify and present data in a variety of ways to help in answering questions about the 5 key food groups</p> <p>I can learn about the nutrition in the food we eat</p> <p>I can use straightforward scientific evidence to answer simple questions about food nutrition</p> <p>I can learn about the different types of skeletons</p> <p>With some help, I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions about the different types of skeletons</p> <p>I can learn about the human skeleton</p> <p>With some help, I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables about the human skeleton</p> <p>I can learn about animals and their skeletons</p> <p>With some help, I can identify differences, similarities or changes related to animals and their skeletons</p> <p>I can explore the role of muscles</p> <p>With some help, I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables about the role of muscles</p>	<p>I know how to identify common appliances that run on electricity in the context of:</p> <p>electrical appliances and electrical safety</p> <p>I know how to construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers in the context of:</p> <p>electrical components in a series circuit</p> <p>I know how to 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 in the context of:</p> <p>electrical circuits</p> <p>how electrical components can change within a circuit</p> <p>I recognise some common conductors and insulators, and associate metals with being good conductors in the context of:</p> <p>conductors and insulators</p> <p>I recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit in the context of:</p> <p>electrical switches</p> <p>I know how to report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</p> <p>I know how to use straightforward scientific evidence to answer questions or to support their findings</p> <p>I know how to gather, record, classify and present data in a variety of ways to help in answering questions</p> <p>I know how to set up simple practical enquiries, comparative and fair tests</p> <p>I know how to make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p> <p>I know how to ask relevant questions and using difference types of scientific enquiries to answer them</p> <p>Year Three Knowledge and Skills</p> <p>I can explore electrical appliances and electrical safety</p> <p>With some help, I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions regarding electrical appliances and electrical safety</p> <p>I can learn about electrical components in a series circuit</p> <p>With some help, I can use straightforward scientific evidence to answer questions or to support my findings about electrical components in a series circuit</p> <p>I can investigate electrical circuits</p>	<p>I know that some forces need contact between 2 objects, but magnetic forces can act at a distance in the context of:</p> <p>contact and non-contact forces</p> <p>understanding that magnetic forces can act at a distance</p> <p>I can compare how things move on different surfaces in the context of:</p> <p>how things move on different surfaces</p> <p>I know how to describe magnets as having 2 poles in the context of:</p> <p>different types of magnets</p> <p>everyday uses of magnets</p> <p>I know how to predict whether 2 magnets will attract or repel each other, depending on which poles are facing in the context of:</p> <p>different types of magnets</p> <p>I know how to 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 in the context of:</p> <p>the properties of magnets and everyday objects that are magnetic</p> <p>Year Three Knowledge and Skills</p> <p>I can explore contact and non-contact forces</p> <p>With some help, I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions about contact and non-contact forces</p> <p>I can compare how things move on different surfaces</p> <p>When comparing how things move on different surfaces, I can make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers with support</p> <p>I can explore different types of magnets</p> <p>I can set up simple practical enquiries, comparative and fair tests to explore different types of magnets with support</p> <p>I can explore the properties of magnets and everyday objects that are magnetic</p> <p>With some help, I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p> <p>I understand that magnetic forces can act at a distance</p> <p>When investigating that magnetic forces can act at a distance, I can make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment including thermometers and data loggers with support</p> <p>I can explore the everyday uses of magnets</p> <p>When exploring the everyday uses of magnets, I can make systematic and careful observations and, where appropriate, take accurate measurements</p>
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<p>Year Four Knowledge and Skills</p> <p>I can name the 5 key food groups and explain why we need a balance of all 5 in our diet</p> <p>I can confidently and independently gather, record, classify and present data in a variety of ways to help in answering questions about the 5 key food groups</p> <p>I can explain what I have learnt about the nutrition in the food we eat using the correct scientific vocabulary</p> <p>I can use straightforward scientific evidence to answer questions of increasing complexity about food nutrition using the correct scientific vocabulary</p> <p>I can explain what I have learnt about the different types of skeletons using the correct scientific vocabulary</p> <p>I can independently report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions about the different types of skeletons</p> <p>I can explain what I have learnt about the human skeleton using the correct scientific vocabulary</p> <p>I can independently record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables about the human skeleton</p> <p>I can explain what I have learnt about animals and their skeletons using the correct scientific vocabulary</p> <p>I can independently identify differences, similarities or changes related to animals and their skeletons</p> <p>I can investigate the role of muscles and explain my findings using the correct scientific vocabulary</p> <p>I can independently record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables about the role of muscles</p>	<p>With some help, I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions about electrical circuits</p> <p>I can explore conductors and insulators</p> <p>With help, I can gather, record, classify and present data in a variety of ways to help in answering questions about conductors and insulators</p> <p>I can learn about electrical switches</p> <p>I can set up simple practical enquiries, comparative and fair tests about electrical switches with support</p> <p>When testing electrical switches, I can make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers with support</p> <p>I can investigate how electrical components can change within a circuit with help</p> <p>I can ask relevant questions and, with some help, use different types of scientific enquiry to answer them</p> <p>Year Four Knowledge and Skills</p> <p>I can investigate electrical appliances and electrical safety and explain my findings using the correct scientific vocabulary</p> <p>I can independently report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions regarding electrical appliances and electrical safety</p> <p>I can explain what I have learnt about electrical components in a series circuit using the correct scientific vocabulary</p> <p>I can independently use straightforward scientific evidence to answer questions or to support my findings about electrical components in a series circuit</p> <p>I can investigate electrical circuits and explain my findings using the correct scientific vocabulary</p> <p>I can independently report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions about electrical circuits</p> <p>I can investigate conductors and insulators and explain my findings using the correct scientific vocabulary</p> <p>I can independently gather, record, classify and present data in a variety of ways to help in answering questions about conductors and insulators</p> <p>I can explain what I have learnt about electrical switches using the correct scientific vocabulary</p> <p>I can independently set up practical enquiries, comparative and fair tests about electrical switches with increasing confidence</p> <p>When testing electrical switches, I can make systematic and careful observations and, where appropriate, take accurate measurements using</p>	<p>using standard units, using a range of equipment, including thermometers and data loggers with support</p> <p>Year Four Knowledge and Skills</p> <p>I can investigate contact and non-contact forces, explaining my findings using the correct scientific vocabulary</p> <p>I can independently report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions about contact and non-contact forces</p> <p>I can compare how things move on different surfaces, explaining my findings using the correct scientific vocabulary</p> <p>When comparing how things move on different surfaces, I can independently make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p> <p>I can investigate different types of magnets, explaining my findings using the correct scientific vocabulary</p> <p>I can independently set up practical enquiries, comparative and fair tests to explore different types of magnets</p> <p>I can investigate the properties of magnets and everyday objects that are magnetic, explaining my findings using the correct scientific vocabulary</p> <p>I can independently record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p> <p>I understand and can explain that magnetic forces can act at a distance using the correct scientific vocabulary</p> <p>When investigating that magnetic forces can act at a distance, I can independently make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment including thermometers and data loggers</p> <p>I can investigate the everyday uses of magnets, explaining my findings using the correct scientific vocabulary</p> <p>When exploring the everyday uses of magnets, I can independently make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p>
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standard units, using a range of equipment, including thermometers and data loggers independently and with increasing confidence

I can independently investigate how electrical components can change within a circuit and explain my findings using the correct scientific vocabulary

I can ask increasing relevant questions and independently use different types of scientific enquiry to answer them

Year Three and Year Four – Curriculum A

Spring Term – Two

Summer Term – One

Summer Term - Two

Plants

Rocks

Living Things and their Habitats

National Curriculum Coverage

I know how to 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 in the context of:

effect of different factors on plant growth

I know how to identify and describe the functions of different parts of a flowering plant in the context of:

the functions of different parts of a flowering plant and how they are used in photosynthesis

I know how to investigate the way in which water is transported within plants in the context of:

how water is transported within plants

I know how to explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal in the context of:

the life cycle of flowering plants

the pollination process and the ways in which seeds are dispersed

I know how to ask relevant questions and use different types of scientific enquiry to answer them

I know how to set up simple practical enquiries, comparative and fair tests

I know how to make systematic and careful observations

I know how to report on findings from enquiries, including oral and written explanations displays or presentations of results and conclusions

I know how to gather, record, classify and present data in a variety of ways to help in answering questions

I know how to record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables

I know how to use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions

Year Three Knowledge and Skills

National Curriculum Coverage

I know how to compare and group together different kinds of rocks on the basis of their appearance and simple physical properties in the context of:

the formation and properties of igneous rocks

the formation and properties of sedimentary and metamorphic rocks

how water contributes to the weathering of rocks

I can explore how and why [rocks] might have changed over time (non-statutory) in the context of:

the suitability of rocks for different purposes

I know how to describe in simple terms how fossils are formed when things that have lived are trapped within rock in the context of:

fossil formation

I recognise that soils are made from rocks and organic matter in the context of:

different types of soil

I know how to report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions

I know how to use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions

I know how to make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers

I know how to identify differences, similarities or changes related to simple scientific ideas and processes

Year Three Knowledge and Skills

I can explore the formation and properties of igneous rocks

I can report on findings from enquiries into the formation and properties of igneous rocks, including oral and written explanations, displays or presentations of results and conclusions with support

National Curriculum Coverage

I recognise that living things can be grouped in a variety of ways in the context of:

different habitats

Making a guide to local living things in the context of:

researching a habitat

I recognise that living things can be grouped in a variety of ways in the context of:

how animals can be classified

I know how to explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment in the context of:

how animals can be classified

I know how to explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment in the context of:

creating a classification key

adaptations and classification within species

pond plants

I know how to identify differences, similarities or changes related to simple scientific ideas and processes

I know how to report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions

I know how to gather, record, classify and present data in a variety of ways to help in answering questions

I know how to record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables

Year Three Knowledge and Skills

I can explore different habitats

<p>I can compare the effect of different factors on plant growth</p> <p>I can ask relevant questions and, with support, use different types of scientific enquiries to answer them</p> <p>With some help, I can set up simple practical enquiries, comparative and fair tests to determine the effect of different factors on plant growth</p> <p>I can identify and begin to describe the functions of different parts of a flowering plant and how they are used in photosynthesis with support</p> <p>With some help, I can make systematic and careful observations about the functions of different parts of a flowering plant and how they are used in photosynthesis</p> <p>I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions with help</p> <p>I can investigate the way in which water is transported within plants</p> <p>I can make systematic and careful observations about the way in which water is transported within plants with support</p> <p>I can explore the part that flowers play in the life cycle of flowering plants</p> <p>With some help, I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</p> <p>I understand the pollination process and the ways in which seeds are dispersed</p> <p>I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions with help</p> <p>I can compare the effect of different factors on plant growth</p> <p>With some help, I can gather, record, classify and present data in a variety of ways to help in answering questions about the effect of different factors on plant growth</p> <p>With some help, I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables about the effect of different factors on plant growth</p> <p>With support, I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</p> <p>Year Four Knowledge and Skills</p> <p>I can compare and explain the effect of different factors on plant growth using the correct scientific vocabulary</p> <p>I can ask increasing relevant questions and independently use different types of scientific enquiry to answer them</p> <p>I can independently set up simple practical enquiries, comparative and fair tests to determine the effect of different factors on plant growth, explaining my findings using the correct scientific vocabulary</p> <p>I can independently identify and describe the functions of different parts of a flowering plant and how they are used in photosynthesis using the correct scientific vocabulary</p>	<p>I can explore the formation and properties of sedimentary and metamorphic rocks</p> <p>I can report on findings from enquiries into the formation and properties of sedimentary and metamorphic rocks, including oral and written explanations, displays or presentations of results and conclusions with support</p> <p>I can explore weathering and the suitability of rocks for different purposes</p> <p>With some help, I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions about weathering and the suitability of rocks for different purposes</p> <p>I can explore how water contributes to the weathering of rocks</p> <p>With some help, I can make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers to determine how water contributes to the weathering of rocks</p> <p>I understand how fossils are formed</p> <p>I can identify differences, similarities or changes related to how fossils are formed</p> <p>I can explore different types of soil</p> <p>With some help, I can make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers to explore different types of soil</p> <p>Year Four Knowledge and Skills</p> <p>I can investigate the formation and properties of igneous rocks, explaining my findings using the correct scientific vocabulary</p> <p>I can independently report on findings from enquiries into the formation and properties of igneous rocks, including oral and written explanations, displays or presentations of results and conclusions</p> <p>I can investigate the formation and properties of sedimentary and metamorphic rocks, explaining my findings using the correct scientific vocabulary</p> <p>I can independently report on findings from enquiries into the formation and properties of sedimentary and metamorphic rocks, including oral and written explanations, displays or presentations of results and conclusions</p> <p>I can investigate weathering and the suitability of rocks for different purposes, explaining my findings using the correct scientific vocabulary</p> <p>I can independently use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions about weathering and the suitability of rocks for different purposes</p> <p>I can investigate how water contributes to the weathering of rocks, explaining my findings using the correct scientific vocabulary</p>	<p>With some help, I can identify differences, similarities or changes related to different habitats</p> <p>I can research a habitat</p> <p>I can report on findings from researching a habitat, including oral and written explanations, displays or presentations of results and conclusions with support</p> <p>I can explore how animals can be classified</p> <p>With some help, I can gather, record, classify and present data in a variety of ways to help in answering questions about how animals can be classified</p> <p>I can create a classification key with some help</p> <p>With some help, I can gather, record, classify and present data in a variety of ways to help in answering questions about classification keys</p> <p>I can explore adaptations and classification within species</p> <p>With some help, I can identify differences, similarities or changes related to adaptations and classification within species</p> <p>I can explore and classify pond plants</p> <p>When exploring and classifying pond plants, I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables with support</p> <p>Year Four Knowledge and Skills</p> <p>I can investigate different habitats, explaining what I find using the correct scientific vocabulary</p> <p>I can independently identify differences, similarities or changes related to different habitats</p> <p>I can research a habitat, explaining what I find using the correct scientific vocabulary</p> <p>I can independently report on findings from researching a habitat, including oral and written explanations, displays or presentations of results and conclusions</p> <p>I can investigate how animals can be classified, explaining what I find using the correct scientific vocabulary</p> <p>I can independently gather, record, classify and present data in a variety of ways to help in answering questions about how animals can be classified</p> <p>I can independently create and explain a classification key using the correct scientific vocabulary</p> <p>I can independently gather, record, classify and present data in a variety of ways to help in answering questions about classification keys</p> <p>I can investigate adaptations and classification within species using the correct scientific vocabulary</p> <p>I can independently identify differences, similarities or changes related to adaptations and classification within species</p>
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<p>I can make systematic and careful observations about the functions of different parts of a flowering plant and how they are used in photosynthesis, explaining my findings using the correct scientific vocabulary</p> <p>I can independently report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</p> <p>I can investigate the way in which water is transported within plants, explaining my findings using the correct scientific vocabulary</p> <p>I can make systematic and careful observations about the way in which water is transported within plants, explaining my findings using the correct scientific vocabulary</p> <p>I can investigate the part that flowers play in the life cycle of flowering plants, explaining my findings using the correct scientific vocabulary</p> <p>I can independently report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions using the correct scientific vocabulary</p> <p>I understand and can explain the pollination process and the ways in which seeds are dispersed using the correct scientific vocabulary</p> <p>I can independently report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions using the correct scientific vocabulary</p> <p>I can compare and explain the effect of different factors on plant growth using the correct scientific vocabulary</p> <p>I can independently gather, record, classify and present data in a variety of ways to help in answering questions about the effect of different factors on plant growth</p> <p>I can independently record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables about the effect of different factors on plant growth</p> <p>I can independently use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</p>	<p>I can independently make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers to determine how water contributes to the weathering of rocks</p> <p>I understand, and can explain how fossils are formed using the correct scientific vocabulary</p> <p>I can identify and explain differences, similarities or changes related to how fossils are formed using the correct scientific vocabulary</p> <p>I can investigate different types of soil, explaining my findings using the correct scientific vocabulary</p> <p>I can independently make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers to explore different types of soil</p>	<p>I can investigate and classify pond plants, explaining what I find using the correct scientific vocabulary</p> <p>When exploring and classifying pond plants, I can independently record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p>
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Year Three and Year Four – Curriculum B

Autumn Term - One	Autumn Term – Two	Spring Term – One
Light	States of Matter	Sound
<p>National Curriculum Coverage</p> <p>I recognise that they need light in order to see things and that dark is the absence of light in the context of:</p> <p>the difference between light sources and non-light sources</p> <p>I recognise that light from the sun can be dangerous and that there are ways to protect their eyes in the context of:</p>	<p>National Curriculum Coverage</p> <p>I know how to compare and group materials together, according to whether they are solids, liquids or gases in the context of:</p> <p>grouping the 3 states of matter</p>	<p>National Curriculum Coverage</p> <p>I can identify how sounds are made, associating some of them with something vibrating in the context of:</p> <p>identifying how sounds are made</p> <p>I know how to recognise that vibrations from sounds travel through a medium to the ear in the context of:</p>

<p>light that comes from the sun and how to stay safe</p> <p>I know that light is reflected from surfaces in the context of: materials which are reflective</p> <p>I recognise that shadows are formed when the light from a light source is blocked by an opaque object in the context of: how shadows are formed</p> <p>I know how to find patterns in the way that the size of shadows change in the context of: how shadows change throughout the day how you can change the size of a shadow</p> <p>I know how to gather, record, classify and present data in a variety of ways to help in answering questions</p> <p>I know how to record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p> <p>I know how to report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</p> <p>I know how to identify differences, similarities or changes related to simple scientific ideas and processes</p> <p>Year Three Knowledge and Skills</p> <p>I can identify the difference between light sources and non-light sources</p> <p>With some help, I can gather, record, classify and present data in a variety of ways to help in answering questions about light sources and non-light sources</p> <p>I can explore the light that comes from the sun and how to stay safe</p> <p>I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables with support</p> <p>With some help, I can report on findings from enquiries about light sources and non-light sources, including oral and written explanations, displays or presentations of results and conclusions</p> <p>I can explore materials which are reflective</p> <p>I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables with support</p> <p>With some help, I can report on findings from enquiries about materials which are reflective, including oral and written explanations, displays or presentations of results and conclusions</p> <p>I can discover how shadows are formed</p> <p>I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables with support</p> <p>I can investigate how shadows change throughout the day</p> <p>I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables with support</p>	<p>I know that some materials change state when they are heated or cooled, and I know how to measure or research the temperature at which this happens in degrees Celsius (°C) in the context of: how particles behave in solids, liquids and gases</p> <p>melting points</p> <p>freezing and boiling points</p> <p>I can identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature in the context of: evaporation and condensation the water cycle</p> <p>I know how to gather, record, classify and present data in a variety of ways to help in answering questions</p> <p>I know how to use straightforward scientific evidence to answer questions or to support their findings</p> <p>I know how to make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p> <p>I know how to record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p> <p>I know how to use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</p> <p>Year Three Knowledge and Skills</p> <p>I can compare and group the 3 states of matter</p> <p>With some help, I can gather, record, classify and present data in a variety of ways to help in answering questions the 3 states of matter</p> <p>I can explore how particles behave in solids, liquids and gases</p> <p>With some help, I can use straightforward scientific evidence to answer questions or to support my findings on how particles behave in solids, liquids and gases</p> <p>I can investigate melting points with support</p> <p>With some help, I can make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p> <p>I can explore freezing and boiling points</p> <p>I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables with support</p> <p>I can explore evaporation and condensation</p> <p>With some help, I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions about evaporation and condensation</p> <p>I understand the water cycle</p>	<p>how vibrations from sounds travel through a medium to the ear</p> <p>sound insulation</p> <p>I know how to find patterns between the volume of a sound and the strength of the vibrations that produced it in the context of: volume</p> <p>I know how to find patterns between the pitch of a sound and features of the object that produced it in the context of: pitch</p> <p>I know how to recognise that sounds get fainter as the distance from the sound source increases in the context of: sounds from near and from far</p> <p>I know how to report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusion</p> <p>I know how to identify differences, similarities or changes related to simple scientific ideas and processes</p> <p>I know how to set up simple practical enquiries, comparative and fair tests</p> <p>I know how to make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p> <p>I know how to record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p> <p>Year Three Knowledge and Skills</p> <p>I can identify how sounds are made</p> <p>With some help, I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusion</p> <p>I can explore how vibrations from sounds travel through a medium to the ear</p> <p>With some help, I can identify differences, similarities or changes related to how vibrations from sounds travel through a medium to the ear</p> <p>I can explore sound insulation</p> <p>I can set up simple practical enquiries, comparative and fair tests to explore sound insulation with support</p> <p>I can explore volume</p> <p>With some help, I can make systematic and careful observations about volume and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p> <p>With some help, I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</p> <p>I can explore pitch</p> <p>With some help, I can identify differences, similarities or changes related to pitch</p>
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With some help, I can report on findings from enquiries about how shadows change throughout the day, including oral and written explanations, displays or presentations of results and conclusions

I can investigate how you can change the size of a shadow

With some help, I can identify differences, similarities or changes related to how you can change the size of a shadow

Year Four Knowledge and Skills

I can identify and explain the difference between light sources and non-light sources using the correct scientific vocabulary

I can independently gather, record, classify and present data in a variety of ways to help in answering questions about light sources and non-light sources

I can explore the light that comes from the sun and how to stay safe, explaining my findings using the correct scientific vocabulary

I can independently record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables

I can independently report on findings from enquiries about light sources and non-light sources, including oral and written explanations, displays or presentations of results and conclusions

I can investigate materials which are reflective, explaining my findings using the correct scientific vocabulary

I can independently record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables

I can independently report on findings from enquiries about materials which are reflective, including oral and written explanations, displays or presentations of results and conclusions

I can investigate how shadows are formed, explaining my findings using the correct scientific vocabulary

I can independently record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables

I can investigate how shadows change throughout the day, explaining my findings using the correct scientific vocabulary

I can independently record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables

I can independently report on findings from enquiries about how shadows change throughout the day, including oral and written explanations, displays or presentations of results and conclusions

I can investigate how you can change the size of a shadow, explaining my findings using the correct scientific vocabulary

I can independently identify differences, similarities or changes related to how you can change the size of a shadow

I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables with support

Year Four Knowledge and Skills

I can independently compare and group the 3 states of matter

I can independently gather, record, classify and present data in a variety of ways to help in answering questions the 3 states of matter

I can investigate how particles behave in solids, liquids and gases, explaining my findings using the correct scientific vocabulary

I can independently use straightforward scientific evidence to answer questions or to support my findings on how particles behave in solids, liquids and gases

I can investigate melting points, explaining my findings using the correct scientific vocabulary

I can independently make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers

I can investigate freezing and boiling points, explaining my findings using the correct scientific vocabulary

I can independently record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables

I can investigate evaporation and condensation, explaining my findings using the correct scientific vocabulary

I can independently use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions about evaporation and condensation

I understand and can explain each stage of the water cycle using the correct scientific vocabulary

I can independently record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables

I can explore sounds from near and from far

I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables with support

With some help, I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions

Year Four Knowledge and Skills

I can identify and explain how sounds are made using the correct scientific vocabulary

I can independently report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusion

I can investigate how vibrations from sounds travel through a medium to the ear, explaining my findings using the correct scientific vocabulary

I can independently identify differences, similarities or changes related to how vibrations from sounds travel through a medium to the ear

I can investigate sound insulation, explaining my findings using the correct scientific vocabulary

I can independently set up simple practical enquiries, comparative and fair tests to explore sound insulation

I can investigate volume, explaining my findings using the correct scientific vocabulary

I can independently make systematic and careful observations about volume and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers

I can independently report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions

I can investigate pitch, explaining my findings using the correct scientific vocabulary

I can independently identify and explain differences, similarities or changes related to pitch using the correct scientific vocabulary

I can investigate sounds from near and from far, explaining my findings using the correct scientific vocabulary

I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables

I can independently report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions

Spring Term – Two	Summer Term – One	Summer Term - Two
Living Things and their Habitats - Conservation	Scientific Enquiry – The Movement of Water	Animals, Including Humans
<p>National Curriculum Coverage</p> <p>I recognise that environments can change and that this can sometimes pose dangers to living things in the context of:</p> <ul style="list-style-type: none"> ecosystems and how they are affected by changes in the seasons human impact on the environment through deforestation air pollution water pollution methods that can be used to conserve water humans having a positive impact on nature <p>I know how to gather, record, classify and present data in a variety of ways to help in answering questions</p> <p>I know how to use straightforward scientific evidence to answer questions or to support my findings</p> <p>I know how to record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p> <p>I know how to report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</p> <p>I know how to make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p> <p>Year Three Knowledge and Skills</p> <p>I am beginning to describe ecosystems and how they are affected by changes in the seasons</p> <p>With some help, I can gather, record, classify and present data in a variety of ways to help in answering questions about ecosystems and how they are affected by changes in the seasons</p> <p>I am beginning to understand human impact on the environment through deforestation</p> <p>With some help, I can use straightforward scientific evidence to answer questions or to support my findings on ecosystems and how they are affected by changes in the seasons</p> <p>I can explore air pollution</p> <p>I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables with support</p> <p>I am beginning to understand water pollution</p> <p>With some help, I can report on findings from enquiries about water pollution, including oral and written explanations, displays or presentations of results and conclusions</p> <p>I can explore methods that can be used to conserve water</p>	<p>National Curriculum Coverage</p> <p>I can gather, record, classify and present data in a variety of ways to help in answering questions in the context of:</p> <ul style="list-style-type: none"> how ocean and sea waters move, and how it is caused <p>I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions in the context of:</p> <ul style="list-style-type: none"> how rivers and streams flow and how it is caused <p>I can set up simple practical enquiries, comparative and fair tests in the context of:</p> <ul style="list-style-type: none"> creating a river to transport water <p>I can ask relevant questions and use different types of scientific enquiries to answer them in the context of:</p> <ul style="list-style-type: none"> how water moves in lakes and ponds <p>I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables in the context of:</p> <ul style="list-style-type: none"> how the water cycle connects bodies of water <p>I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions in the context of:</p> <ul style="list-style-type: none"> water and our world <p>Year Three Knowledge and Skills</p> <p>I know how ocean and sea waters move and how it is caused</p> <p>With some help, I can gather, record, classify and present data in a variety of ways to help in answering questions about how ocean and sea waters move, and how it is caused</p> <p>I know how rivers and streams flow and how it is caused</p> <p>I can report on findings from enquiries about how rivers and streams flow, including oral and written explanations, displays or presentations of results and conclusions with support</p> <p>I can create a river to transport water with help</p> <p>I can set up simple practical enquiries, comparative and fair tests to test a river to transport water with support</p> <p>I know how water moves in lakes and ponds</p> <p>I can ask relevant questions about how water moves in lakes and ponds and, with support, use different types of scientific enquiries to answer</p> <p>I understand how the water cycle connects bodies of water</p>	<p>National Curriculum Coverage</p> <p>I know how to describe the simple functions of the basic parts of the digestive system in humans in the context of:</p> <ul style="list-style-type: none"> the organs in the digestive system the functions of the main organs in the digestive system <p>I know how to identify the different types of teeth in humans and their simple functions in the context of:</p> <ul style="list-style-type: none"> the types of human teeth and their functions the effects of different liquids on the teeth <p>I know how to construct and interpret a variety of food chains, identifying producers, predators and prey in the context of:</p> <ul style="list-style-type: none"> food chains food webs <p>I know how to record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p> <p>I know how to make systematic and careful observations</p> <p>I know how to report on findings from enquiries, including oral and written explanations</p> <p>I know how to set up simple practical enquiries, comparative and fair tests</p> <p>I know how to use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</p> <p>Year Three Knowledge and Skills</p> <p>I can identify the organs in the digestive system with help</p> <p>I can record findings on the organs in the digestive system using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables with support</p> <p>I can describe the functions of the main organs in the digestive system with help</p> <p>With some help, I can make systematic and careful observations about the functions of the main organs in the digestive system</p> <p>With some help, I can report on findings from enquiries about the functions of the main organs in the digestive system, including oral and written explanations</p> <p>I can identify the types of human teeth and their functions with help</p> <p>I can record findings on the types of human teeth and their functions using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables with support</p> <p>I can investigate the effects of different liquids on the teeth</p>

<p>With some help, I can make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p> <p>I understand that humans can have a positive impact on nature</p> <p>With some help, I can report on findings from enquiries about humans having a positive impact on nature, including oral and written explanations, displays or presentations of results and conclusions</p> <p>Year Four Knowledge and Skills</p> <p>I can describe ecosystems and how they are affected by changes in the seasons using the correct scientific vocabulary</p> <p>I can independently gather, record, classify and present data in a variety of ways to help in answering questions about ecosystems and how they are affected by changes in the seasons</p> <p>I understand and can explain human impact on the environment through deforestation using the correct scientific vocabulary</p> <p>I can independently use straightforward scientific evidence to answer questions or to support my findings on ecosystems and how they are affected by changes in the seasons</p> <p>I can research air pollution, explaining my findings using the correct scientific vocabulary</p> <p>I can independently record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p> <p>I understand and can explain water pollution using the correct scientific vocabulary</p> <p>I can independently report on findings from enquiries about water pollution, including oral and written explanations, displays or presentations of results and conclusions</p> <p>I can investigate and compare methods that can be used to conserve water, explaining my favoured method using the correct scientific vocabulary</p> <p>I can independently make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers</p> <p>I understand and can explain that humans can have a positive impact on nature using the correct scientific vocabulary</p> <p>I can independently report on findings from enquiries about humans having a positive impact on nature, including oral and written explanations, displays or presentations of results and conclusions</p>	<p>I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables with support</p> <p>I understand how important water is to our world</p> <p>I can report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions with support</p> <p>Year Four Knowledge and Skills</p> <p>I understand and can explain how ocean and sea waters move and how it is caused using the correct scientific vocabulary</p> <p>I can independently gather, record, classify and present data in a variety of ways to help in answering questions about how ocean and sea waters move, and how it is caused</p> <p>I understand and can explain rivers and streams flow and how it is caused using the correct scientific</p> <p>I can independently report on findings from enquiries about how rivers and streams flow, including oral and written explanations, displays or presentations of results and conclusions</p> <p>I can independently create a river to transport water, explaining my decisions and the science behind what I am doing</p> <p>I can independently set up simple practical enquiries, comparative and fair tests to see a river to transport water</p> <p>I understand and can explain how water moves in lakes and ponds using the correct scientific vocabulary</p> <p>I can independently ask relevant questions about how water moves in lakes and ponds and, confidently, use different types of scientific enquiries to answer</p> <p>I understand and can explain how the water cycle connects bodies of water using the correct scientific vocabulary</p> <p>I can independently record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p> <p>I understand and can explain how important water is to our world using the correct scientific vocabulary</p> <p>I can independently report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</p>	<p>I can set up simple practical enquiries, comparative and fair tests to determine the effects of different liquids on the teeth with support</p> <p>With some help, I can use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions about the effects of different liquids on the teeth</p> <p>I understand food chains</p> <p>I can record findings on food chains using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables with support</p> <p>I can explore food webs</p> <p>I can record findings on food webs using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables with support</p> <p>Year Four Knowledge and Skills</p> <p>I can independently identify the organs in the digestive system</p> <p>I can independently record findings on the organs in the digestive system using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p> <p>I can describe the functions of the main organs in the digestive system using the correct scientific vocabulary</p> <p>I can independently make systematic and careful observations on the main organs in the digestive system</p> <p>I can independently report on findings from enquiries about the functions of the main organs in the digestive system, including oral and written explanations</p> <p>I can independently identify the types of human teeth and explain their functions using the correct scientific vocabulary</p> <p>I can record findings on the types of human teeth and their functions using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables with support</p> <p>I can investigate the effects of different liquids on the teeth, explaining my findings using the correct scientific vocabulary</p> <p>I can independently set up simple practical enquiries, comparative and fair tests to determine the effects of different liquids on the teeth</p> <p>I can independently use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions about the effects of different liquids on the teeth</p> <p>I understand and can explain food chains using the correct scientific vocabulary</p> <p>I can independently record findings on food chains using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p> <p>I understand and can explain food webs using the correct scientific vocabulary</p> <p>I can independently record findings on food webs using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</p>
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Year Five and Year Six – Curriculum A

Autumn Term - One	Autumn Term – Two	Spring Term – One
Properties of Materials	Light	Animals, Including Humans
<p>National Curriculum Coverage</p> <p>I know how to 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 in the context of:</p> <p>properties of materials the hardness of materials</p> <p>I know how to compare and group together everyday materials based on evidence from comparative and fair tests, including their conductivity of heat in the context of:</p> <p>thermal conductors and thermal insulators</p> <p>I can give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic in the context of:</p> <p>thermal conductors and thermal insulators</p> <p>I know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution in the context of:</p> <p>materials that become soluble in water the solubility of materials</p> <p>I can use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating in the context of:</p> <p>separating mixtures by filtering, sieving, evaporating or magnets</p> <p>I know how to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <p>I know how to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>I know how to record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I know how to report and present findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I know how to use test results to make predictions to set up further comparative and fair tests</p> <p>Year Five Knowledge and Skills</p>	<p>National Curriculum Coverage</p> <p>I recognise that light appears to travel in straight lines in the context of: how light travels</p> <p>I know how to 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 in the context of:</p> <p>Reflection</p> <p>I know that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes in the context of: reflection and how it can be used to help us see</p> <p>how we see objects</p> <p>I know how to use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them in the context of:</p> <p>how shadows can change why shadows have the same shape as the object that casts them</p> <p>I know how to record data and results of increasing complexity using scientific diagrams and labels</p> <p>I know how to identify scientific evidence that has been used to support or refute ideas or arguments</p> <p>I know how to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <p>I know how to record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I know how to report and present findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>Year Five Knowledge and Skills</p> <p>I can explore how light travels</p> <p>I can record data and results of increasing complexity using scientific diagrams and labels when exploring how light travels</p> <p>I can identify scientific evidence that has been used to support or refute ideas or arguments about how light travels with increasing confidence</p> <p>I can explore reflection</p>	<p>National Curriculum Coverage</p> <p>I know how to describe the changes as humans develop to old age in the context of:</p> <p>the key stages of a mammal’s life cycle the gestation periods of mammals foetal development the hand span of different aged children the changes experienced during puberty the changes humans may experience during adulthood and old age</p> <p>I know how to record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I know how to report and present findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I know how to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>I know how to identify scientific evidence that has been used to support or refute ideas or arguments</p> <p>Year Five Knowledge and Skills</p> <p>I can identify the key stages of a mammal’s life cycle</p> <p>When identifying the key stages of a mammal’s life cycle, I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I can explore the gestation periods of mammals</p> <p>With some help, I can report and present findings from enquiries about the gestation periods of mammals, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I can learn about foetal development</p> <p>When learning about foetal development, I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I can investigate the hand span of different aged children</p>

<p>I can explore properties of materials</p> <p>I can plan different types of scientific enquiries to answer questions on the properties of materials, including recognising and controlling variables where necessary with increasing confidence</p> <p>I can explore thermal conductors and thermal insulators</p> <p>When exploring thermal conductors and thermal insulators, I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>When exploring thermal conductors and thermal insulators, I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I can explore the hardness of materials</p> <p>With some help, I can report and present findings from enquiries about the hardness of materials, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I can discover materials that become soluble in water</p> <p>I can plan different types of scientific enquiries to answer questions about soluble materials, including recognising and controlling variables where necessary with increasing confidence</p> <p>I can investigate the solubility of materials</p> <p>When investigating the solubility of materials, I can use test results to make predictions to set up further comparative and fair tests with increasing confidence</p> <p>I can explore how mixtures can be separated by filtering, sieving, evaporating or magnets</p> <p>When exploring how mixtures can be separated, I can plan different types of scientific enquiries to answer questions about separation and filtering, including recognising and controlling variables where necessary with increasing confidence</p> <p>Year Six Knowledge and Skills</p> <p>I can investigate properties of materials, explaining my findings using the correct scientific vocabulary</p> <p>I can confidently plan different types of scientific enquiries to answer questions about the properties of materials, including recognising and controlling variables where necessary</p> <p>I can investigate thermal conductors and thermal insulators, explaining my findings using the correct scientific vocabulary</p> <p>When investigating thermal conductors and thermal insulators, I can take measurements, using a range of scientific equipment, accurately and precisely, taking repeat readings when appropriate</p>	<p>I can plan different types of scientific enquiries to answer questions about reflection, including recognising and controlling variables where necessary with increasing confidence</p> <p>When exploring reflection, I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I can explore reflection and explain how it can be used to help us see</p> <p>I can identify scientific evidence that has been used to support or refute ideas or arguments about how reflection can be used to help us to see with increasing confidence</p> <p>I can investigate how shadows can change</p> <p>When investigating how shadows can change, I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I can investigate how we can show why shadows have the same shape as the object that casts them</p> <p>With some help, I can report and present findings from enquiries about why shadows have the same shape as the object that casts them, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I can investigate how we see objects</p> <p>I can plan different types of scientific enquiries to answer questions about how we see objects, including recognising and controlling variables where necessary with increasing confidence</p> <p>Year Six Knowledge and Skills</p> <p>I can investigate how light travels, explaining my findings using the correct scientific vocabulary</p> <p>I can confidently record complex data and results using scientific diagrams and labels when exploring how light travels</p> <p>I can confidently identify scientific evidence that has been used to support or refute ideas or arguments about how light travels</p> <p>I can investigate reflection, explaining my findings using the correct scientific vocabulary</p> <p>I can confidently plan different types of scientific enquiries to answer questions about reflection, including recognising and controlling variables where necessary</p> <p>When exploring reflection, I can confidently record complex data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I can investigate reflection and explain how it can be used to help us see using the correct scientific vocabulary</p>	<p>When investigating the hand span of different aged children, I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>I can learn about the changes experienced during puberty</p> <p>With some help, I can report and present findings from enquiries about the changes experienced during puberty, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I can describe the changes humans may experience during adulthood and old age</p> <p>I can identify scientific evidence that has been used to support or refute ideas or arguments about changes humans may experience during adulthood and old age with increasing confidence</p> <p>Year Six Knowledge and Skills</p> <p>I can identify the key stages of a mammal's life cycle and explain them using the correct scientific vocabulary</p> <p>When identifying the key stages of a mammal's life cycle, I can record complex data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I can research the gestation periods of mammals, explaining my findings using the correct scientific vocabulary</p> <p>I can independently report and present findings from enquiries about the gestation periods of mammals, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I can explain what I have learnt about foetal development using the correct scientific vocabulary</p> <p>When learning about foetal development, I can record complex data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I can investigate the hand span of different aged children, explaining my findings using the correct scientific vocabulary</p> <p>When investigating the hand span of different aged children, I can take measurements, using a range of scientific equipment, accurately and precisely, taking repeat readings when appropriate</p> <p>I can explain what I have learnt about the changes experienced during puberty using the correct scientific vocabulary</p> <p>I can independently report and present findings from enquiries about the changes experienced during puberty, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I can accurately describe the changes humans may experience during adulthood and old age using the correct scientific vocabulary</p>
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<p>When investigating thermal conductors and thermal insulators, I can confidently record complex data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I can investigate the hardness of materials, explaining my findings using the correct scientific vocabulary</p> <p>I can independently report and present findings from enquiries about the hardness of materials, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I can discover materials that become soluble in water, explaining my findings using the correct scientific vocabulary</p> <p>I can confidently plan different types of scientific enquiries to answer questions about soluble materials, including recognising and controlling variables where necessary</p> <p>I can investigate the solubility of materials, explaining my findings using the correct scientific vocabulary</p> <p>When investigating the solubility of materials, I can confidently use test results to make predictions to set up further comparative and fair tests</p> <p>I can investigate how mixtures can be separated by filtering, sieving, evaporating or magnets, explaining my findings using the correct scientific vocabulary</p> <p>When exploring how mixtures can be separated, I can confidently plan different types of scientific enquiries to answer questions about separation and filtering, including recognising and controlling variables where necessary</p>	<p>I can confidently identify scientific evidence that has been used to support or refute ideas or arguments about reflection and how it can be used to help us see</p> <p>I can investigate how shadows can change, explaining my findings using the correct scientific vocabulary</p> <p>When investigating how shadows can change, I can confidently record complex data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I can investigate how we can show why shadows have the same shape as the object that casts them, explaining my findings using the correct scientific vocabulary</p> <p>I can independently report and present findings from enquiries about why shadows have the same shape as the object that casts them, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I can investigate how we see objects, explaining my findings using the correct scientific vocabulary</p> <p>I can confidently plan different types of scientific enquiries to answer questions about how we see objects, including recognising and controlling variables where necessary</p>	<p>I can confidently identify scientific evidence that has been used to support or refute ideas or arguments about changes humans may experience during adulthood and old age</p>
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Year Five and Year Six – Curriculum A

Spring Term – Two	Summer Term – One	Summer Term - Two
Earth and Space	Animals, Including Humans	Living Things and their Habitats
<p>National Curriculum Coverage</p> <p>I know how to describe the Sun, Earth and Moon as approximately spherical bodies in the context of:</p> <ul style="list-style-type: none"> solar system and its planets designing a planet using knowledge gained <p>I know how to describe the movement of the Earth and other planets relative to the Sun in the solar system in the context of:</p> <ul style="list-style-type: none"> the heliocentric model of the solar system <p>I know how to use the idea of the Earth’s rotation to explain day and night and the apparent movement of the Sun across the sky in the context of:</p> <ul style="list-style-type: none"> the Earth’s movement in space the Earth’s rotation and night and day 	<p>National Curriculum Coverage</p> <p>I know how to identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood in the context of:</p> <ul style="list-style-type: none"> the function of the heart and its role in the circulatory system blood vessels blood <p>I know how to describe the ways in which nutrients and water are transported within animals, including humans in the context of:</p> <ul style="list-style-type: none"> how the body transports water and nutrients <p>I know how to recognise the impact of diet, exercise, drugs and lifestyle on the way my bodies function in the context of:</p> <ul style="list-style-type: none"> what can affect my heart rate 	<p>National Curriculum Coverage</p> <p>I know how to give reasons for classifying plants and animals based on specific characteristics in the context of:</p> <ul style="list-style-type: none"> living organisms the kingdoms of life <p>I know how to 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 in the context of:</p> <ul style="list-style-type: none"> the Linnaean system the characteristics of different types of microorganisms asexual reproduction through spore dispersal living organisms

<p>I know how to describe the movement of the Moon relative to the Earth in the context of: the movement of the Moon</p> <p>I know how to identify scientific evidence that has been used to support or refute ideas or arguments</p> <p>I know how to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>I know how to report and present findings from enquiries - including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations</p> <p>I know how to use test results to make predictions to set up further comparative and fair tests</p> <p>Year Five Knowledge and Skills</p> <p>I can explore the solar system and its planets</p> <p>I can identify scientific evidence that has been used to support or refute ideas or arguments about the solar system and its planets with increasing confidence</p> <p>When exploring the solar system and its planets, I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>I understand the heliocentric model of the solar system</p> <p>I can identify scientific evidence that has been used to support or refute ideas or arguments about the heliocentric model of the solar system with increasing confidence</p> <p>I can explain the Earth's movement in space</p> <p>With some help, I can report and present findings from enquiries about the Earth's movement in space - including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations</p> <p>I can explain the Earth's rotation and night and day</p> <p>I can use test results to make predictions to set up further comparative and fair tests about the Earth's rotation and night and day with increasing confidence</p> <p>I can explain the movement of the Moon</p> <p>I can identify scientific evidence that has been used to support or refute ideas or arguments about the movement of the Moon with increasing confidence</p> <p>I can design a planet using knowledge I have gained</p> <p>When designing a planet, with some help, I can report and present findings from enquiries, including conclusions, causal relationships and explanations</p>	<p>the impact of drugs and alcohol on the body</p> <p>I know how to record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I know how to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>I know how to identify scientific evidence that has been used to support or refute ideas or arguments</p> <p>I know how to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <p>I know how to report and present findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>Year Five Knowledge and Skills</p> <p>I understand the function of the heart and its role in the circulatory system</p> <p>When exploring the function of the heart and its role in the circulatory system, I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I can identify and compare blood vessels</p> <p>When identifying and comparing blood vessels, I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>I can explore blood</p> <p>When exploring blood, I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I can learn how the body transports water and nutrients</p> <p>When exploring how the body transports water and nutrients, I can identify scientific evidence that has been used to support or refute ideas or arguments with growing confidence</p> <p>I can investigate what affects your heart rate</p> <p>I can plan different types of scientific enquiries to answer questions about what affects the heart rate, including recognising and controlling variables where necessary with increasing confidence</p> <p>I can learn about the impact of drugs and alcohol on the body</p> <p>With some help, I can report and present findings from enquiries about the impact of drugs and alcohol on the body, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>Year Six Knowledge and Skills</p>	<p>I know how to record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs and bar and line graphs</p> <p>I know how to identify scientific evidence that has been used to support or refute ideas or arguments</p> <p>I know how to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <p>I know how to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>I know how to report and present findings from enquiries - including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations</p> <p>Year Five Knowledge and Skills</p> <p>I can classify living organisms</p> <p>When classifying living organisms, I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs and bar and line graphs</p> <p>I understand the kingdoms of life</p> <p>I can identify scientific evidence that has been used to support or refute ideas or arguments about the kingdoms of life with increasing confidence</p> <p>I can classify living things using the Linnaean system</p> <p>I can identify scientific evidence that has been used to support or refute ideas or arguments about classifying living things using the Linnaean system with increasing confidence</p> <p>I can identify the characteristics of different types of microorganisms</p> <p>I can plan different types of scientific enquiries to answer questions about the characteristics of different types of microorganisms, including recognising and controlling variables where necessary with increasing confidence</p> <p>I can investigate asexual reproduction through spore dispersal</p> <p>When investigating asexual reproduction through spore dispersal, I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>I can classify and describe a living organism</p> <p>With some help, I can report and present findings from enquiries about living organisms - including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations</p> <p>Year Six Knowledge and Skills</p> <p>I can confidently and accurately classify living organisms</p>
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<p>of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>Year Six Knowledge and Skills</p> <p>I can explain the solar system and its planets using the correct scientific vocabulary</p> <p>I can confidently identify scientific evidence that has been used to support or refute ideas or arguments about the solar system and its planets</p> <p>When exploring the solar system and its planets, I can take accurate and precise measurements, using a range of scientific equipment, taking repeat readings when appropriate</p> <p>I understand and can explain the heliocentric model of the solar system using the correct scientific vocabulary</p> <p>I can confidently identify scientific evidence that has been used to support or refute ideas or arguments about the heliocentric model of the solar system</p> <p>I can confidently explain the Earth’s movement in space using the correct scientific vocabulary</p> <p>I can confidently report and present findings from enquiries about the Earth’s movement in space - including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations</p> <p>I can confidently explain the Earth’s rotation and night and day using the correct scientific vocabulary</p> <p>I can confidently use test results to make predictions to set up further comparative and fair tests about the Earth’s rotation and night and day</p> <p>I can confidently explain the movement of the Moon using the correct scientific vocabulary</p> <p>I can confidently identify scientific evidence that has been used to support or refute ideas or arguments about the movement of the Moon</p> <p>I can design a planet using knowledge I have gained and explain its features using the correct scientific vocabulary</p> <p>When designing a planet, I can independently report and present findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p>	<p>I understand and can explain the function of the heart and its role in the circulatory system using the correct scientific vocabulary</p> <p>When exploring the function of the heart and its role in the circulatory system, I can confidently record complex data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I can identify and compare blood vessels, explaining my findings using the correct scientific vocabulary</p> <p>When identifying and comparing blood vessels, I can confidently take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>I can explore blood, explaining my findings using the correct scientific vocabulary</p> <p>When exploring blood, I can confidently record complex data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I can explain what I have learnt about how the body transports water and nutrients using the correct scientific vocabulary</p> <p>When exploring how the body transports water and nutrients, I can confidently identify scientific evidence that has been used to support or refute ideas or arguments</p> <p>I can investigate what affects your heart rate, explaining my findings using the correct scientific vocabulary</p> <p>I can confidently plan different types of scientific enquiries to answer questions about what affects the heart rate, including recognising and controlling variables where necessary</p> <p>I can explain what I have learnt about the impact of drugs and alcohol on the body using the correct scientific vocabulary</p> <p>I can independently report and present findings from enquiries about the impact of drugs and alcohol on the body, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p>	<p>When classifying living organisms, I can confidently record complex data and results using scientific diagrams and labels, classification keys, tables, scatter graphs and bar and line graphs</p> <p>I understand and can explain the kingdoms of life using the correct scientific vocabulary</p> <p>I can confidently identify scientific evidence that has been used to support or refute ideas or arguments about the kingdoms of life</p> <p>I can confidently and accurately classify living things using the Linnaean system</p> <p>I can identify scientific evidence that has been used to support or refute ideas or arguments about classifying living things using the Linnaean system</p> <p>I can confidently and accurately identify the characteristics of different types of microorganisms</p> <p>I can confidently plan different types of scientific enquiries to answer questions about the characteristics of different types of microorganisms, including recognising and controlling variables where necessary</p> <p>I can investigate asexual reproduction through spore dispersal, explaining my findings using the correct scientific vocabulary</p> <p>When investigating asexual reproduction through spore dispersal, I can take accurate and precise measurements, using a range of scientific equipment, taking repeat readings when appropriate</p> <p>I can confidently and accurately classify and describe a living organism using the correct scientific vocabulary</p> <p>I can confidently report and present findings from enquiries about living organisms - including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations</p>
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Year Five and Year Six – Curriculum B

Autumn Term - One	Autumn Term – Two	Spring Term – One
Looking After Our Environment	Electricity	Forces
National Curriculum Coverage	National Curriculum Coverage I know how to use recognised symbols when representing a simple circuit in a diagram in the context of:	National Curriculum Coverage

<p>I know how to record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs in the context of:</p> <p>climate change</p> <p>ways to reduce energy consumption</p> <p>I know how to report and present findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations in the context of:</p> <p>reducing how much rubbish is sent to landfill</p> <p>what happens when fuels are burnt</p> <p>I know how to identify scientific evidence that has been used to support or refute ideas or arguments in the context of:</p> <p>the outcomes of COP26</p> <p>I know how to use test results to make predictions to set up further comparative and fair tests in the context of:</p> <p>data associated with the weather</p> <p>Year Five Knowledge and Skills</p> <p>I can learn about climate change</p> <p>When learning about climate change, I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I can explore ways to reduce how much rubbish is sent to landfill</p> <p>With some help, I can report and present findings from enquiries about ways to reduce how much rubbish is sent to landfill, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I can explore ways to reduce energy consumption</p> <p>When exploring ways to reduce energy consumption, I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I can explore what happens when fuels are burnt</p> <p>With some help, I can report and present findings from enquiries about what happens when fuels are burnt, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I can explore the outcomes of COP26</p> <p>When exploring the outcomes of COP26, I can identify scientific evidence that has been used to support or refute ideas or arguments with increasing confidence</p> <p>I can compare data associated with the weather</p>	<p>the parts of an electric circuit</p> <p>I know how to associate the brightness of a bulb or the volume of a buzzer with the number and voltage of cells used in the circuit in the context of:</p> <p>voltage and its effect on an electrical circuit</p> <p>identifying and correcting problems in a circuit</p> <p>I know how to 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 in the context of:</p> <p>what affects the output of a circuit</p> <p>building a set of traffic lights</p> <p>knowledge of conductors and insulators</p> <p>I know how to record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I know how to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <p>I know how to report and present findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I know how to use test results to make predictions to set up further comparative and fair tests</p> <p>I know how to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>Year Five Knowledge and Skills</p> <p>I can describe the parts of an electric circuit</p> <p>When describing the parts of an electric circuit, I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I can explore voltage and its effect on an electrical circuit</p> <p>I can plan different types of scientific enquiries to answer questions about voltage and its effect on an electrical circuit, including recognising and controlling variables where necessary with increasing confidence</p> <p>I can apply knowledge to identify and correct problems in a circuit</p> <p>With some help, I can report and present findings from enquiries about correcting problems in a circuit, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I can investigate what affects the output of a circuit</p> <p>I can plan different types of scientific enquiries to answer questions about what affects the output of a circuit, including recognising and controlling variables where necessary with increasing confidence</p>	<p>I know how to explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object in the context of:</p> <p>gravity and the life and work of Isaac Newton</p> <p>I know how to identify the effects of air resistance, water resistance and friction, that act between moving surfaces in the context of:</p> <p>the connection between air resistance and parachutes</p> <p>I know how to identify the effects of air resistance, water resistance and friction, that act between moving surfaces in the context of:</p> <p>factors which affect an object's ability to resist water</p> <p>I know how to identify the effects of air resistance, water resistance and friction, that act between moving surfaces in the context of:</p> <p>the effects of friction on different surfaces</p> <p>I know how to recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect in the context of:</p> <p>levers and pulleys</p> <p>Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect in the context of:</p> <p>gears</p> <p>I know how to identify scientific evidence that has been used to support or refute ideas or arguments</p> <p>I know how to take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>I know how to report and present findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I know how to plan different types of scientific enquiries to answer questions, including recognising</p> <p>I know how to report and present findings from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I know how to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary</p> <p>Year Five Knowledge and Skills</p> <p>I can explore gravity and the life and work of Isaac Newton</p> <p>I can identify scientific evidence that has been used to support or refute ideas or arguments about gravity with increasing confidence</p> <p>I can examine the connection between air resistance and parachutes</p> <p>When examining the connection between air resistance and parachutes, I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p>
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<p>I can use test results to make predictions to set up further comparative and fair tests with increasing confidence about comparing data associated with the weather</p> <p>Year Six Knowledge and Skills</p> <p>I can explain what I have learnt about climate change using the correct scientific vocabulary</p> <p>When learning about climate change, I can confidently record complex data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I can investigate ways to reduce how much rubbish is sent to landfill, explaining my findings using the correct scientific vocabulary</p> <p>I can confidently report and present findings from enquiries about ways to reduce how much rubbish is sent to landfill, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I can investigate ways to reduce energy consumption, explaining my findings using the correct scientific vocabulary</p> <p>When exploring ways to reduce energy consumption, I can confidently record complex data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I can investigate what happens when fuels are burnt, explaining my findings using the correct scientific vocabulary</p> <p>I can confidently report and present findings from enquiries about what happens when fuels are burnt, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I can investigate the outcomes of COP26, explaining my findings using the correct scientific vocabulary</p> <p>When exploring the outcomes of COP26, I can confidently identify scientific evidence that has been used to support or refute ideas or arguments</p> <p>I can compare data associated with the weather, explaining my findings using the correct scientific vocabulary</p> <p>I can confidently use test results to make predictions to set up further comparative and fair tests about comparing data associated with the weather</p>	<p>I can use test results to make predictions to set up further comparative and fair tests about what affects the output of a circuit with increasing confidence</p> <p>With some help, I can build a set of traffic lights</p> <p>I can plan different types of scientific enquiries to answer questions about building a set of traffic lights, including recognising and controlling variables where necessary with increasing confidence</p> <p>When building a set of traffic lights, I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>I can apply knowledge of conductors and insulators</p> <p>When applying knowledge of conductors and insulators, I can take measurements, using a range of scientific equipment, with increasing accuracy and precision, taking repeat readings when appropriate</p> <p>Year Six Knowledge and Skills</p> <p>I can accurately describe the parts of an electric circuit using the correct scientific vocabulary</p> <p>When describing the parts of an electric circuit, I can confidently record complex data and results using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs</p> <p>I can investigate voltage and its effect on an electrical circuit, explaining my findings using the correct scientific vocabulary</p> <p>I can confidently plan different types of scientific enquiries to answer questions about voltage and its effect on an electrical circuit, including recognising and controlling variables where necessary</p> <p>I can apply knowledge to identify and correct problems in circuits of increasing complexity</p> <p>I can independently report and present findings from enquiries about correcting problems in a circuit, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I can investigate what affects the output of a circuit, explaining my findings using the correct scientific vocabulary</p> <p>I can confidently plan different types of scientific enquiries to answer questions about what affects the output of a circuit, including recognising and controlling variables where necessary</p> <p>I can confidently use test results to make predictions to set up further comparative and fair tests about what affects the output of a circuit</p> <p>I can build a set of traffic lights independently</p> <p>I can confidently plan different types of scientific enquiries to answer questions about building a set of traffic lights, including recognising and controlling variables where necessary</p>	<p>I can explore factors which affect an object's ability to resist water</p> <p>With some help, I can report and present findings from enquiries about factors which affect an object's ability to resist water, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I can investigate the effects of friction on different surfaces</p> <p>I can plan different types of scientific enquiries to answer questions about the effects of friction on different surfaces, including recognising and controlling variables where necessary with increasing confidence</p> <p>I can investigate mechanisms - levers and pulleys</p> <p>With some help, I can report and present findings from enquiries about levers and pulleys, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I can investigate mechanisms – gears</p> <p>I can plan different types of scientific enquiries to answer questions about gears, including recognising and controlling variables where necessary with increasing confidence</p> <p>Year Six Knowledge and Skills</p> <p>I can explore gravity and the life and work of Isaac Newton, explaining what I learn using the correct scientific vocabulary</p> <p>I can confidently identify scientific evidence that has been used to support or refute ideas or arguments about gravity</p> <p>I can examine the connection between air resistance and parachutes, explaining my findings using the correct scientific vocabulary</p> <p>When examining the connection between air resistance and parachutes, I can confidently take accurate and precise measurements, using a range of scientific equipment, taking repeat readings when appropriate</p> <p>I can investigate factors which affect an object's ability to resist water, explaining my findings using the correct scientific vocabulary</p> <p>I can independently report and present findings from enquiries about factors which affect an object's ability to resist water, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I can investigate the effects of friction on different surfaces, explaining my findings using the correct scientific vocabulary</p> <p>I can confidently plan different types of scientific enquiries to answer questions about the effects of friction on different surfaces, including recognising and controlling variables where necessary</p> <p>I can investigate mechanisms - levers and pulleys, explaining my findings using the correct scientific vocabulary</p> <p>I can independently report and present findings from enquiries about levers and pulleys, including conclusions, causal relationships and explanations of</p>
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When building a set of traffic lights, I can confidently take accurate and precise measurements, using a range of scientific equipment, taking repeat readings when appropriate

I can confidently apply knowledge of conductors and insulators

When applying knowledge of conductors and insulators, I can confidently take accurate and precise measurements, using a range of scientific equipment, taking repeat readings when appropriate

and a degree of trust in results, in oral and written forms such as displays and other presentations

I can investigate mechanisms – gears, explaining my findings using the correct scientific vocabulary

I can confidently plan different types of scientific enquiries to answer questions about gears, including recognising and controlling variables where necessary

Year Five and Year Six – Curriculum B

Spring Term – Two	Summer Term – One	Summer Term - Two
Evolution and Inheritance	Changes in Materials	Living Things and their Habitats

National Curriculum Coverage

I know how to recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents in the context of:

how offspring vary and are not identical to their parents

I know how to identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution in the context of:

animal adaptations

plant adaptations

I know how to recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago in the context of:

what we can learn from fossils

the theory of evolution

human evolution

I know how to report and present findings from enquiries - including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations

I know how to identify scientific evidence that has been used to support or refute ideas or arguments

Year Five Knowledge and Skills

I understand how offspring vary and are not identical to their parents

With some help, I can report and present findings from enquiries about how offspring vary and are not identical to their parents - including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations

I can learn about animal adaptations

National Curriculum Coverage

I know how to describe how to recover a substance from a solution in the context of:

using evaporation to recover the solute from a solution

I know how to demonstrate that dissolving, mixing and changes of state are reversible changes in the context of:

reversible changes

I can 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 in the context of:

chemical reactions and how new materials are made

rusting reactions

burning reactions

acids and bicarbonate of soda

I know how to report and present findings from enquiries, including conclusions

I know how to report and present findings from enquiries, including conclusions, in oral and written forms

I know how to report and present from enquiries, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations

I know how to plan different types of scientific enquiry to answer questions, including recognising and controlling variables where necessary

I know how to identify scientific evidence that has been used to support or refute ideas or arguments

I know how to use test results to make predictions to set up further comparative and fair tests

Year Five Knowledge and Skills

I can use evaporation to recover the solute from a solution

National Curriculum Coverage

I know how to describe the life process of reproduction in some plants and animals in the context of:

the life process of a plant

I know how to describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird in the context of:

the life cycles of mammals

the life cycles of insects and amphibians

the life cycle of birds and reptiles

the life and work of Jane Goodall and David Attenborough

researching and presenting the life cycle of a creature

I know how to plan different types of scientific enquiries to answer questions, including recognising and controlling variables where necessary

I know how to report and present findings from enquiries - including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations

Year Five Knowledge and Skills

I understand the life process of a plant

I can plan different types of scientific enquiries to answer questions about the life process of a plant, including recognising and controlling variables where necessary with increasing confidence

I understand the life cycles of mammals

With some help, I can report and present findings from enquiries about the life cycles of mammals - including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations

I can compare the life cycles of insects and amphibians

With some help, I can report and present findings from enquiries about comparing the life cycles of insects and amphibians - including conclusions,

<p>With some help, I can report and present findings from enquiries about animal adaptations - including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations</p> <p>I can learn about plant adaptations</p> <p>With some help, I can report and present findings from enquiries about plant adaptations - including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations</p> <p>I can explore what we can learn from fossils</p> <p>I can identify scientific evidence that has been used to support or refute ideas or arguments about what we can learn from fossils with support</p> <p>I can explore the theory of evolution</p> <p>I can identify scientific evidence that has been used to support or refute ideas or arguments about the theory of evolution with support</p> <p>I can explore human evolution</p> <p>I can identify scientific evidence that has been used to support or refute ideas or arguments about human evolution with support</p> <p>Year Six Knowledge and Skills</p> <p>I understand and can explain how offspring vary and are not identical to their parents using the correct scientific vocabulary</p> <p>I can independently report and present findings from enquiries about how offspring vary and are not identical to their parents - including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations</p> <p>I can explain what I have learnt about animal adaptations using the correct scientific vocabulary</p> <p>I can independently report and present findings from enquiries about animal adaptations - including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations</p> <p>I can explain what I have learnt about plant adaptations using the correct scientific vocabulary</p> <p>I can independently report and present findings from enquiries about plant adaptations - including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations</p> <p>I can explore what we can learn from fossils, explaining my findings using the correct scientific vocabulary</p> <p>I can identify scientific evidence that has been used to support or refute ideas or arguments about what we can learn from fossils</p> <p>I can explore the theory of evolution, explaining my findings using the correct scientific vocabulary</p>	<p>I can report and present findings from enquiries about using evaporation to recover the solute from a solution, including conclusions</p> <p>I can recognise and describe reversible changes</p> <p>I can report and present findings from enquiries about reversible changes, including conclusions, in oral and written forms</p> <p>I can observe chemical reactions and describe, in simple terms how we know new materials are made</p> <p>With some help, I can report and present findings from enquiries about chemical reactions and how we know new materials are made, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I can investigate rusting reactions</p> <p>I can plan different types of scientific enquiry to answer questions about rusting reactions, including recognising and controlling variables where necessary with increasing confidence</p> <p>I can investigate burning reactions</p> <p>I can identify scientific evidence that has been used to support or refute ideas or arguments about burning reactions with support</p> <p>I can investigate chemical reactions - acids and bicarbonate of soda</p> <p>I can use test results to make predictions to set up further comparative and fair tests about chemical reactions - acids and bicarbonate of soda with increasing confidence</p> <p>Year Six Knowledge and Skills</p> <p>I can confidently use evaporation to recover the solute from a solution, explaining the process using the correct scientific vocabulary</p> <p>I can confidently report and present findings from enquiries about using evaporation to recover the solute from a solution, including detailed conclusions</p> <p>I can recognise and describe reversible changes, explaining the process using the correct scientific vocabulary</p> <p>I can confidently report and present findings from enquiries about reversible changes, including detailed conclusions, in oral and written forms</p> <p>I can observe chemical reactions and describe how we know new materials are made using the correct scientific vocabulary</p> <p>I can independently report and present findings from enquiries about chemical reactions and how we know new materials are made, including conclusions, causal relationships and explanations of and a degree of trust in results, in oral and written forms such as displays and other presentations</p> <p>I can investigate rusting reactions, explaining the process using the correct scientific vocabulary</p> <p>I can confidently plan different types of scientific enquiry to answer questions about rusting reactions, including recognising and controlling variables where necessary</p>	<p>causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations</p> <p>I understand the life cycle of birds and reptiles</p> <p>With some help, I can report and present findings from enquiries about the life cycle of birds and reptiles - including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations</p> <p>I know about the life and work of Jane Goodall and David Attenborough</p> <p>With some help, I can report and present findings from enquiries about the life and work of Jane Goodall and David Attenborough - including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations</p> <p>I can research and present the life cycle of a creature</p> <p>I can identify scientific evidence that has been used to support or refute ideas or arguments of life cycles with support</p> <p>Year Six Knowledge and Skills</p> <p>I understand and can explain the life process of a plant using the correct scientific vocabulary</p> <p>I can confidently plan different types of scientific enquiries to answer questions about the life process of a plant, including recognising and controlling variables where necessary</p> <p>I understand and can explain the life cycles of mammals using the correct scientific vocabulary</p> <p>I can independently report and present findings from enquiries about the life cycles of mammals - including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations</p> <p>I can compare the life cycles of insects and amphibians, explaining my findings using the correct scientific vocabulary</p> <p>I can independently report and present findings from enquiries about comparing the life cycles of insects and amphibians - including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations</p> <p>I understand and can explain the life cycle of birds and reptiles using the correct scientific vocabulary</p> <p>I can independently report and present findings from enquiries about the life cycle of birds and reptiles - including conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations</p> <p>I can explain what I know about the life and work of Jane Goodall and David Attenborough using the correct scientific vocabulary</p> <p>I can independently report and present findings from enquiries about the life and work of Jane Goodall and David Attenborough - including</p>
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<p>I can identify scientific evidence that has been used to support or refute ideas or arguments about the theory of evolution</p> <p>I can explore human evolution, explaining my findings using the correct scientific vocabulary</p> <p>I can identify scientific evidence that has been used to support or refute ideas or arguments about human evolution</p>	<p>I can investigate burning reactions, explaining the process using the correct scientific vocabulary</p> <p>I can independently identify scientific evidence that has been used to support or refute ideas or arguments about burning reactions</p> <p>I can investigate chemical reactions - acids and bicarbonate of soda, explaining the process using the correct scientific vocabulary</p> <p>I can confidently use test results to make predictions to set up further comparative and fair tests about chemical reactions - acids and bicarbonate of soda</p>	<p>conclusions, causal relationships and explanations of and a degree of trust in results - in oral and written forms such as displays and other presentations</p> <p>I can research and present the life cycle of a creature with increasing detail and using the correct scientific vocabulary</p> <p>I can confidently identify scientific evidence that has been used to support or refute ideas or arguments of life cycles</p>
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