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	Autumn Term			Spring Term			Summer Term		
THRIVE VALUES	**Team** – We work collaboratively during experiments and investigations. **Healthy** – We learn how to stay healthy. We demonstrate healthy habits with handwashing and careful use of instruments and resources.			**Responsibility** – We understand the impact of humans on our planet. We learn about the lifecycles of animals and plants and the challenges they face. **Innovative** – We understand science is at the forefront of innovation. We know about scientific innovators from the past.			**Valued** – We value the natural world and its resources. We listen to each other's theories, observations and ideas and learn from each other. **Empathetic** – We understand the world around us and how plants and animals grow.		
Nursery	Unit outcome Materials/ Exploring how things work/ signs of autumn			Unit Outcome Signs of winter/ spring, water & it's changes of state, pushes and pulls			Unit Outcome Plants and Lifecycles		
	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary
	. Use all their senses in hands-on exploration of natural materials . Explore how things work Talk about the differences between materials and changes they notice.		To include but not limited to; Same, different, shell, pebble, rock, magnifying glass, big, small, smooth, soft, hard, bendy, squishy, squash, ice, melt, cold, transparent, see through, wet, dry, sharp, freezing, rough, Push, cool, hot, elastic. Twig, bend magnet, attract, repel. Weather – wind, rain, sun, cold, hot, fog, snow, icy, frosty, damp.	Use all their senses in hands-on exploration of natural materials (e.g. ice). Explore collections of materials with similar and/or different properties. Talk about the differences between materials and changes they notice Explore and talk about different forces they can feel. (e.g. cogs and wheels, the wind.)		To include but not limited to; Same, different, shell, pebble, rock, magnifying glass, big, small, smooth, soft, hard, bendy, squishy, squash, ice, melt, cold, transparent, see through, wet, dry, sharp, freezing, rough, Push, cool, hot, elastic. Twig, bend magnet, attract, repel. Weather – wind, rain, sun, cold, hot, fog, snow, icy, frosty, damp. Sense, see, hear, smell, explore Natural, material, fabric explore, wind, twist, bulb, plant, living things melt, defrost,	Plant seeds and care for growing plants. Understand the key features of the life cycle of a plant and an animal Understand the key features of the life cycle of a plant and an animal (sunflowers and caterpillars) Begin to understand the need to respect and care for the natural environment and all living things.		Same, different, shell, pebble, rock, magnifying glass, big, small, smooth, soft, hard, bendy, squishy, squash, ice, melt, cold, transparent, see through, wet, dry, sharp, freezing, rough, Push, cool, hot, elastic. Twig, bend magnet, attract, repel. Weather – wind, rain, sun, cold, hot, fog, snow, icy, frosty, damp. Sense, see, hear, smell, explore, natural, fabric, explore, wind, twist, bulb, plant, living things, melt, defrost.

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		Sense, see, hear, smell, explore Natural, material, fabric explore, wind, twist, bulb, plant, living things melt defrost				
Cross-curricular links	A2 PSHE Healthy eating/hygiene					
Reception	Unit outcome Me and my small world What's in my basket? Senses Let's go outside What's changed? Night and Day		Unit Outcome Changes in Winter Let it flow From desert to jungle Watch it grow Animal detectives Pushes and pulls		Unit Outcome Explore the natural world around them. Describe what they see, hear and feel whilst outside. Understand the effect of changing seasons on the natural world around them.	
	Knowledge / Skills	Vocabulary	Knowledge / Skills	Vocabulary	Knowledge / Skills	Vocabulary
	Me and my small world Explore the natural world around them. **Key Questions:** What is this body part? What is this animal? Where does this animal live? **What's in my basket?** Talk about the differences between materials and changes they notice. **Key questions:** What is this fruit/vegetable called? What do you notice? Which is the smallest fruit/vegetable? **Senses**	Me and my small world animal farm horse pig cow sheep body head arms hands mouth teeth legs feet field sty barn stable coop What's in my basket? fruit vegetable size big little large small rough spiky smooth colour seed heavy light	Changes in Winter Understand the effect of changing seasons on the natural world around them. Key Questions: What does hibernate mean? What changes do you notice in winter? What do you need to wear in the winter? **Let it flow** Talk about the differences between	Changes in Winter winter cold warm freeze frozen melt ice rainy sunny frosty snowy water leaves tree change hibernate hedgehog polar polar bear penguin fur Changes in Winter water wet dry flow float sink sand mud container pour fill full empty mix large	Observation of the natural world. Describe what they see hear and feel outside. Explore the natural world around them. Natural processes – ice melting, sound vibrations, light travelling, shadows, magnets attracting floating and sinking,	To include but not limited to; Observe Same Different Weather- rain, sunny, windy, snowing/snow/ fog/mist/cold/hot Plant, tree, flower, grow, seed, compost, earth, ground, animal, see, hear, feel, smell, sense, plant, herb, bulbs, flower, daffodil, tulip, crocus, lemon balm, mint, rosemary,

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	Explore the natural world around them. Key Questions: Where is your _____? Which sense are you using to _____? What does it feel/smell/sound/taste/look like? **Let's go outside** Explore the natural world around them. Describe what they see, hear and feel whilst outside. Understand the effect of changing seasons on the natural world around them. **Key Questions:** What changes do you notice? What did you use to _____? Why? What does it feel/look/smell like? What is the same/different? **What's changed?** Talk about the differences between materials and changes they notice. **Key Questions:** What has changed? How has it changed? What is the same/different? What do you notice? **Night and Day** Understand the effect of changing seasons on the natural world around them. **Key Questions:** What is a nocturnal animal? Which animals are nocturnal?	Senses smell touch see hear taste nose skin eyes ears mouth tongue hands face head feel sound sight sense Let's go outside mud grass water ice tree leaf sticky rough smooth wet soft hard cold dry rainy cloudy sunny windy snowy weather autumn Let's go outside mud grass water ice tree leaf sticky rough smooth wet soft hard cold dry rainy cloudy sunny windy snowy weather autumn What's changed? melt changed same different hard soft runny hot cold warm burn mix wet dry heat fire cool Night and Day animal nocturnal owl	materials and changes they notice. **Key Questions:** Which is the best container to hold the mud/water? Why? Do you think this will float or sink? Why? Which container will the _____ flow through? What happens when you add water to the _____? **From desert to jungle** Recognise some environments that are different from the one in which they live. **Key Questions:** What is this animal? • Where does this animal live? • Is it a hot or cold climate? • What might you see in the ____? **Watch it grow** **Animal detectives** **Pushes and pulls**	small tall wide shallow deep heavy **From desert to jungle** warm hot sandy sunny dry wet rainy jungle desert tiger zebra giraffe monkey ostrich elephant lion snake camel frog lizard scorpion		curry plant, Lavender, hazelnut, Sycamore, beech, squirrel, hedgehog, float, sink, shadow, light water, sink, float, attract, repel push, pull

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	What can you see at night/during the day?	badger fox hedgehog bat stars moon sun night light day shadow torch daylight asleep awake evening morning dark				
Cross-curricular links	Maths Link: Match, sort and compare Talk about measure and pattern It's me 1,2,3 1,2,3,4,5 Circles and triangles Shapes with 4 sides					
Year One	Unit outcome The Human Body Seasonal Changes (Autumn) Materials Seasonal Changes (Winter)		Unit Outcome Plants Animals Caring for our planet Seasonal changes (spring) Planting		Unit Outcome Plants Planting Growing and cooking Seasonal changes – summer	
	Knowledge / Skills	Vocabulary	Knowledge / Skills	Vocabulary	Knowledge / Skills	Vocabulary
	The Human Body Identify and name parts of the human body, Draw and label parts of the human body Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense **Seasonal Changes (Autumn)** Changes in autumn Collect and record data Observe changes across the 4 seasons	**The Human Body** hair, eyes, face, nose, ears, teeth, mouth, head, neck, arm, elbow, hand, leg, knee, foot light, dark, blind, hear, loud, quiet, noisy, sweet, salty, sour, bitter, savoury, skin, rough, smooth, hard, soft, smell, scent, sniff, stench	**Plants** Plant – winter Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees **Animals** Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals Identify and name a variety of common animals that are carnivores, herbivores and	**Plants** plant, flower, leaf, stem, roots, seeds, soil **Animals** animal, mammal, fur, wild mammal, pet, bird, wings, beak, feathers, webbed feet, flippers, tail, fins, scales, gills, amphibian, frog, toad, newt, reptile, lizard, crocodile, turtle, carnivore, sharp teeth, herbivore, plants, vegetable, fruit, omnivore **Caring for our planet**	**Plants** Name plant and tree parts. Identify plants and trees in my local area, including wild and garden plants and describe their basic structure. **Seasonal changes (summer)** Observe changes across the 4 seasons Observe and describe weather associated with the seasons and how day length varies **Planting - summer** Observe changes plants **Growing and cooking** Where does my food come from? What have I planted and grown this year?	**Plants** plant, flower, leaf, petals, stem, roots, branch, trunk, roots, wildflower, daisy, garden plant, sunflower, nettle, buttercup, dandelion, deciduous tree, horse chestnut, oak, sycamore, evergreen tree, pine, holly, needles, seed, soil, growth **Seasonal changes – summer** autumn, daylight, night, weather, season, rainfall, weather, rain gauge, winter, rainy,

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	• Observe and describe weather associated with the seasons and how day length varies **Materials** Explore materials – wood, plastic, glass and metal Explore materials – rock Objects and materials Melt and freeze Float or sink? Does it absorb water? Investigate materials Distinguish between an object and the material from which it is made Identify and name a variety of everyday materials, including wood, plastic, glass, metal, water, and rock Describe the simple physical properties of a variety of everyday materials Compare and group together a variety of everyday materials on the basis of their simple physical properties **Seasonal Changes (Winter)** Changes in winter Collect and record data	**Seasonal Changes (Autumn)** **Shape** autumn, winter, spring, summer daylight, night, weather, season, rainfall, weather, rain gauge **Materials** material, shiny, dull, rock, heavy, light, object, wood, metal, plastic, glass, wool, solid, liquid, melt, freeze, ice, float, sink, absorb, transparent, opaque **Seasonal Changes (Winter)** winter, rainy, snowy, windy, cloudy, frosty, sunny, spring summer	omnivores Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals including pets) **Caring for our planet** Why is it important to care for our planet? How can we care for our planet? **Seasonal changes (spring)** Changes in spring Collect and record data Observe changes across the 4 seasons • Observe and describe weather associated with the seasons and how day length varies **Planting** Observe changes Plant – spring Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees	Earth, helpful, harmful, recycle, reuse, crops, farmer, cook **Seasonal changes (spring)** autumn, winter, spring, summer daylight, night, weather, season, rainfall, weather, rain gauge **Plant – spring** As above	**Seasonal changes – summer** Changes in summer Collect and record data What are the main changes in each season?	snowy, windy, cloudy, frosty, sunny, spring, summer
Cross-curricular links	PE – gymnastics (body parts). Maths – days of the week/ months of the year Maths – grouping classifying – bar chart, tally charts		Maths – grouping classifying – bar chart, tally charts, pictogram, Venn diagram Maths – days of the week/ months of the year		Maths – days of the week/ months of the year Maths – grouping classifying – bar chart, tally charts,	
Year Two	Unit outcome Animals' needs for survival		Unit Outcome Plants (light and dark)		Unit Outcome Plants (bulbs and seeds)	

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	Humans Materials Plastic			Living things and their habitats			Growing up Plants (bulbs and seeds) Growing up (small steps) Wildlife		
	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary
	Animals' needs for survival Notice that animals, including humans, have offspring which grow into adults • Find out about and describe the basic needs of animals, including humans, for survival (water, food and air) **Humans** Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene **Materials** Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses Find out how the shapes of solid objects made from some materials can be changed by squashing, bending, twisting and stretching **Plastic** How is plastic helpful and harmful? How can we reduce our plastic waste in school?		**Animals' needs for survival** **Humans** shelter, heart, exercise, physical health, mental health, healthy diet, unhealthy diet, meat, sugar, germs, hygiene, doctor, disease, plaque, gums, filling offspring, egg, parent, baby, child, teenager, life cycle, adolescent, frogspawn, tadpole, froglet, caterpillar, pupa, butterfly, insect, adult **Materials** natural material, human-made material, recycle, flexible, rigid, stone, pebble, brick, brittle, flexible, translucent, tough, lightweight,	**Plants (light and dark)** Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy **Living things and their habitats** Explore and compare the differences between things that are living, dead, and things that have never been alive • Identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other • Identify and name a variety of plants and animals in their habitats, including microhabitats		**Plants (light and dark)** sunlight, compost, herb, blossom, bulb, shoot **Living things and their habitats** Arctic plants, hibernate, habitat, cactus, desert, rainfall, ocean, seagrass, woodland, fern, moss, microhabitat, spider, snail, diet, food chain, living, dead, never alive	**Plants (bulbs and seeds)** Observe and describe how seeds and bulbs grow into mature plants Find out and describe how plants need water, light and a suitable temperature to grow and stay healthy **Growing up** Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food Parent and offspring Life cycle of humans Life cycles of different mammals Life cycle of amphibians Life cycle of a butterfly Are there patterns between the life cycles of different animals? **Plants (bulbs and seeds)** Findings – bulbs and seeds **Growing up (small steps)** Butterfly diary **Wildlife** What does wildlife do for us? What can we do for wildlife?		**Plants (bulbs and seeds)** sunlight, compost, herb, blossom, bulb, shoot **Growing up** Life cycle Egg caterpillar pupa butterfly

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		strong, breakable, waterproof **Plastic** single-use plastic, wildlife, nature, local				
Cross-curricular links	PSHE Healthy living – medicine, sleep, dental hygiene Maths – grouping and classifying.					
Year Three	Unit outcome Animals, including humans: Skeletons Movement Nutrition and diet Food waste Rocks		Unit Outcome Fossils Explore soil Light		Unit Outcome Plants Forces and Magnets Biodiversity	
	Knowledge / Skills	Vocabulary	Knowledge / Skills	Vocabulary	Knowledge / Skills	Vocabulary
	Animals, including humans: **Skeletons** Identify that humans and some other animals have skeletons and muscles for support, protection and movement **Movement** Joints How we move **Nutrition and diet** 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 **Food waste** What is food waste? What is food waste? How can we reduce our food waste? **Rocks**	**Skeletons** **Movement** skeleton, skull, ribcage, pelvis, femur, spine, antennae, exoskeleton, joint, hinge joint, ball and-socket joint, muscle, biceps, triceps, contract, relax **Nutrition and diet** carbohydrates, proteins, dairy products, fats, fruit and vegetables, balanced diet, balanced meal,	**Fossils** Explore fossils Fossil formation Soils **Explore soil** The importance of soil Plan – soil experiment Investigate – soil experiment Evaluate – soil experiment **Light** Recognise that they need light in order to see things and that dark is the absence of light Notice that light is reflected from surfaces Recognise that light from the sun can be dangerous and that there are ways to protect their eyes Recognise that shadows are formed	**Fossils** Fossilisation Rock skeleton Fossil Sediment Shell **Explore soil** Soil Sandy soil Clay soil Peat soil Chalky soil Organics matter Nutrients Habitat loss Deforestation Habitat Independent variables Dependant variables Controlled variables Filter paper Filter funnel	**Plants** Identify and describe the functions of different parts of flowering plants: roots, stem/trunk, leaves and flowers Explore the requirements of plants for life and growth (air, light, water, nutrients from soil, and room to grow) and how they vary from plant to plant Investigate the way in which water is transported within plants Explore the part that flowers play in the life cycle of flowering plants, including pollination, seed formation and seed dispersal **Forces and Magnets** Compare how things move on different surfaces Notice that some forces need contact between 2 objects, but	**Plants** water transportation, seedling, seed coating, germination, stamen, pistil, pollen, reproductive organs, pollination, pollinators, wind dispersal, animal dispersal, water dispersal, explosion dispersal, seed dispersal **Forces and Magnets** push, pull, force, contact force, friction, magnet, magnetic, poles, magnetic force, non-metal, iron, aluminium, steel, attract, repel **Biodiversity** Biodiversity Endangered Extinct

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	Compare and group together different kinds of rocks on the basis of their appearance and simple physical properties Describe in simple terms how fossils are formed when things that have lived are trapped within rock Recognise that soils are made from rocks and organic matter		nutrition, Eat well Guide, vegan diet, vegetarian diet, omnivorous diet, pescatarian diet **Food Waste** Food waste Landfill Food waste recycling Edible Inedible **Rocks** granite, pumice, sandstone, chalk, marble, gneiss, crystals, grains, layers, texture, hardness, weathering, fossil, shell, fossilisation, sediment, sandy soil, clay soil, peat soil, chalky soil, organic matter, nutrients, deforestation, habitat loss	when the light from a light source is blocked by an opaque object Find patterns in the way that the size of shadows change		Measuring cylinder Absorb Conclusion evaluation Data **Light** light sources, natural light sources, artificial light sources, Sun, sunglasses, protect, reflection, shadow	magnetic forces can act at a distance Observe how magnets attract or repel each other and attract some materials and not others Compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials Describe magnets as having 2 poles predict whether 2 magnets will attract or repel each other, depending on which poles are facing Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object Identify the effects of air resistance, water resistance and friction, that act between moving surfaces Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect **Biodiversity** What is biodiversity? How can we increase biodiversity in our local area?	Rewilding habitat
Year Four	Unit outcome Grouping and classifying living things Data Collection State of matter			Unit Outcome Sound Data Collection Electricity Energy			Unit Outcome Data Collection Habitats Deforestation The digestive system Food Chains		
	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary

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	Grouping and classifying living things Group animals Vertebrates and invertebrates Classification keys (animals) Group plants Classification key (plants) Recognise that living things can be grouped in a variety of ways Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment **Data Collection** Data collection Analyse data Gather, record and classify data in a variety of ways to help in answering questions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. **State of matter** Compare and group materials together, according to whether they are solids, liquids or gases Observe that some materials change state when they are heated or cooled, and measure or research the temperature at which this happens in degrees Celsius (°C) Identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature	**Grouping and classifying living things** Vertebrates invertebrates exoskeleton Insects soft-bodied invertebrate flowering plant non-flowering plant stamen pistil **Data Collection** Bar chart Pictogram Data Prediction **State of matter** solid, liquid, gas, states of matter, pouring solid, oobleck, flow, freezing, melting, boiling, condensation, evaporation, melting point, water cycle, precipitation, atmosphere, petri dish	**Sound** Identify how sounds are made, associating some of them with something vibrating Recognise that vibrations from sounds travel through a medium to the ear Find patterns between the pitch of a sound and features of the object that produced it. Find patterns between the volume of a sound and the strength of the vibrations that produced it Recognise that sounds get fainter as the distance from the sound source increases **Data Collection** Data collection Analyse data Gather, record and classify data in a variety of ways to help in answering questions. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. **Electricity** Identify common appliances that run on electricity Construct a simple series electrical circuit, identifying and naming its basic parts, including cells, wires, bulbs, switches and buzzers Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is	**Sound** vibration, sound, volume, pitch, outer ear, ear bones, cochlea, ear drum, ear canal, decibel, insulate, high-pitched, low-pitched, background noise **Data Collection** Bar chart Pictogram Data Prediction **Electricity** appliances, plug, socket, cell, electrocuted, circuit, switch, battery, buzzer, conductor, insulator **Energy** Electricity Mains electricity Battery –powered Renewable energy Non-renewable energy Appliance Earth Energy usage	**Data Collection** Data collection Analyse data Make conclusions Use straightforward scientific evidence to answer questions or to support their findings. Use results to draw simple conclusions. Begin to identify differences, similarities or changes related to simple ideas or processes. **Habitats** Recognise that environments can change and that this can sometimes pose dangers to living things **Deforestation** What is deforestation? What are the impacts of deforestation on habitats? **The digestive system** Describe the simple functions of the basic parts of the digestive system in humans • Identify the different types of teeth in humans and their simple functions **Food Chains** Construct and interpret a variety of food chains, identifying producers, predators and prey	**Data Collection** Bar chart Pictogram Data Prediction **Habitats** vertebrate, invertebrate, soft bodied invertebrate, flowering plant, non-flowering plant, seasonal changes, natural resources, rewilding, nature reserve **Deforestation** habitat deforestation habitat destruction biodiversity natural resource destruction, palm oil, extinct endangered sustainable **The digestive system** incisors, canines, premolars, molars, enamel, root, decay, digestive system, mouth, oesophagus, stomach, small intestine, large intestine, rectum, saliva **Food Chains** producer, consumer, prey, predator, farming, overfishing, hunting

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			part of a complete loop with a battery Recognise that a switch opens and closes a circuit and associate this with whether or not a lamp lights in a simple series circuit Recognise some common conductors and insulators, and associate metals with being good conductors **Energy** What is energy? How can we reduce our energy usage?			
Year Five	Unit outcome Forces Space Global Warming			Unit Outcome Properties of materials Animals including Humans Life Cycles		Unit Outcome Reproduction A Reversible and irreversible changes Plastic pollution Reproduction B	
	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary
	Forces Explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object Identify the effects of air resistance, water resistance and friction, that act between moving surfaces Recognise that some mechanisms including levers, pulleys and gears allow a smaller force to have a greater effect **Space** Describe the movement of the Earth and other planets relative to the sun in the solar system • Describe the		**Forces** frictional force, motion, air resistance, parachute, surface area, water resistance, streamlined, non-contact force, gravity, weight, lever, gear, pulley, machine **Space** Solar System, orbit, Sun, planets, Pluto, celestial body, gravity,	**Properties of materials** Compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets Know that some materials will dissolve in liquid to form a solution, and describe how to recover a substance from a solution Use knowledge of solids, liquids and gases to decide how mixtures might be separated, including through filtering, sieving and evaporating		**Properties of materials** electrical conductor, electrical insulator, thermal insulator, properties, lifespan, dissolve, soluble, insoluble, solution, mixture **Animals including Humans** foetus, elderly adult, milestone, womb, period, reproduce, hormone, puberty, life expectancy, gestation period, gestation **Life Cycles** monotreme, mammary gland, metamorphosis, larva, chrysalis,	**Reproduction A** Describe the life process of reproduction in some plants and animals **Reversible and irreversible changes** Demonstrate that dissolving, mixing and changes of state are reversible changes • Explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda **Plastic pollution**		**Reproduction A/B** foetus, elderly adult, milestone, womb, period, reproduce, hormone, puberty, life expectancy, gestation period, gestation line graph prediction **Reversible and irreversible changes** properties, lifespan, dissolve, soluble, insoluble, solution, mixture, reversible changes, reverse, chemical reaction, irreversible change, burning, heating,

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	movement of the moon relative to the Earth • Describe the sun, Earth and moon as approximately spherical bodies • Use the idea of the Earth's rotation to explain day and night and the apparent movement of the sun across the sky **Global Warming** What are the impacts of global warming on living things?	heliocentric model, geocentric model, rotate, axis, North Pole, South Pole, Earth, night, day, moon, gravitational force, satellite **Global Warming** global warming, greenhouse gases, fossil fuels, climate change, glacier, carbon footprint, plastic pollution, pollution, micro plastic	Give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic **Animals including Humans** Describe the changes as humans develop to old age **Life Cycles** Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird	hatchling, nestling, fledgling, fertilisation, embryo, sperm cells, egg cells, sexual reproduction, anther, stigma, style, filament, ovary, ovule, clone, runner, tuber, asexual reproduction, cutting, parent plant	What are the impacts of plastic pollution on the planet? **Reproduction B** Findings – clone plants Interpret data	vinegar, bicarbonate of soda **Plastic pollution** global warming, greenhouse gases, fossil fuels, climate change, glacier, carbon footprint, plastic pollution, pollution, micro plastic
Year Six	Unit outcome			Unit Outcome			Unit Outcome		
	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary	Knowledge	Skills	Vocabulary
	Living things and their habitats Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals Give reasons for classifying plants and animals based on specific characteristics **Electricity**		**Living things and their habitats** organism, excretion, reproduction, mollusc, arachnid, classification, coniferous tree, microorganism, bacteria, virus,	**Light** Recognise that light travels in straight lines Use the idea that light travels in straight lines to explain that objects are seen because they give out or reflect light into the eye Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes		**Light** retina, iris, pupil, lens, ray diagram, solar eclipse, refraction, medium, rainbow, prism, coloured filter, spectrum of light **Light Pollution** migration, glare, light pollution, light trespass, sky glow, urban, rural, light emission appliance	**Variation** Inheritance and characteristics Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents **Adaptations** Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution		**Variation** variation, species, inheritance, desirable characteristics **Adaptations** polar habitat, desert habitat, adaptations, evolution, common ancestor, natural selection, finch, Galapagos Islands, decompose, Charles Darwin

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	Associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit Compare and give reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches Use recognised symbols when representing a simple circuit in a diagram **Renewable energy** What is renewable energy? Using renewable energy	fungi, characteristics Carl Linnaeus **Electricity** series circuit, voltage, current, complete circuit, incomplete circuit **Renewable energy** Renewable Non-renewable solar power, wind power, solar panels, wind turbine, migration, global warming, greenhouse gases	Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them **Light pollution** What is light pollution? How can we reduce light pollution? **The circulatory system** Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood **Diet, drugs and lifestyle** Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function	**The circulatory system** circulatory system, blood vessels, arteries, veins, capillaries, red blood cells, white blood cells, lungs, plasma, oxygen, atria, ventricles, right atrium, left atrium, right ventricle, left ventricle, oxygenated blood, deoxygenated blood **Diet, drugs and lifestyle** drug, painkiller, depressant, stimulant, cigarette, tar, nicotine, vape, carbon monoxide, addiction, heart rate	**Fossils** Recognise that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago **Themed Project**	**Fossils** palaeontologist, Mary Anning