



Science Medium Term Planning

	Autumn 1	Autumn 2	Spring 1	Spring 2	Summer 1	Summer 2	
Y1	<p>Seasonal Change- Autumn and Winter</p> <ul style="list-style-type: none"> • Observe changes across the four seasons • Name the four seasons in order • Observe and describe weather associated with the seasons • Observe and describe how day length varies <p>Key Vocabulary: weather (sunny, rainy, windy, snowy etc.), seasons (Winter, Summer, Spring, Autumn), sun, sunrise, sunset, day length</p> <p>Animals Including Humans</p> <ul style="list-style-type: none"> • Identify the main parts of the human body. <p>Key Vocabulary: head, body, eyes, ears, mouth, teeth</p>		<p>Everyday Materials</p> <ul style="list-style-type: none"> • Distinguish between an object and the material from which it is made • Describe materials using their senses, using specific scientific words • Explain what material objects are made from • Explain why a material might be useful for a specific job • Name some different everyday materials e.g. wood, plastic, metal, water and rock • Sort materials into groups by a given criterion • Explain how solid shapes can be changed by squashing, bending, twisting and stretching 	<p>Animals Including Humans</p> <ul style="list-style-type: none"> • Identify some of the differences between different animals • Identify living and non-living things • Identify and name a variety of common animals • Describe how an animal is suited to its environment • Identify and name a variety of common animals that are carnivores, herbivores and omnivores <p>Key Vocabulary: leg, tail, wig, claw,</p>	<p>Plants</p> <ul style="list-style-type: none"> • Describe and name the petals, stem, leaf, bulb, flower, seed, stem and root of a plant • Identify and name a range of common plants and trees • Name the trunk, branches and root of a tree <p>Key Vocabulary: leaf, flower, blossom, petal, fruit, berry, root, seed, trunk, branch, stem, bark, stalk, bud</p> <p>Seasonal Change- Summer</p> <ul style="list-style-type: none"> • Observe changes across the four seasons • Name the four seasons in order • Observe and describe weather associated with the seasons • Observe and describe how day length varies <p>Key Vocabulary: weather (sunny, rainy, windy, snowy etc.), seasons (Winter, Summer, Spring, Autumn), sun, sunrise, sunset, day length</p>		

		<p>Key Vocabulary: object, material, wood, plastic, glass, metal, water, rock, brick, paper, fabric, elastic, foil, card/ cardboard, rubber, wool, clay, hard, soft, stretchy, stiff, bendy, floppy, waterproof, absorbent, breaks/ tears, rough, smooth, shiny, dull, see through</p>	<p>fin, scales, feathers, fur, beak, paws, hooves</p> <p>Seasonal Change- Spring</p> <ul style="list-style-type: none"> • Observe changes across the four seasons • Name the four seasons in order • Observe and describe weather associated with the seasons • Observe and describe how day length varies <p>Key Vocabulary: weather (sunny, rainy, windy, snowy etc.), seasons (Winter, Summer, Spring, Autumn), sun, sunrise, sunset, day length</p>	
Knowledge	<ul style="list-style-type: none"> • I know the four seasons in order • I know the weather associated with the seasons. 	<ul style="list-style-type: none"> • I know the difference between an object and the 	<ul style="list-style-type: none"> • I know the name of a variety of common 	<ul style="list-style-type: none"> • I know the basic structure of a variety of common plants including roots, stem/trunk, leaves and flowers and I

	<ul style="list-style-type: none"> ● I know that the day length varies from season to season. ● I know the names of the basic parts of the human body and I know where they are. ● I know which part of the body is associated with each sense. 	<p>material from which it is made.</p> <ul style="list-style-type: none"> ● I know the names of a variety of everyday materials, including wood, plastic, glass, metal, water and rock. ● I know the simple physical properties of a variety of everyday materials. ● I know solid shapes can be changed by squashing, bending, twisting and stretching. 	<p>animals that are birds, fish, amphibians, reptiles, mammals and invertebrates.</p> <ul style="list-style-type: none"> ● I know the name of a variety of common animals and I know whether they are carnivores, herbivores and omnivores. ● I know some of the differences between different animals. ● I know where some animals live. ● I know the difference between a living and 	<p>know where these are on a variety of common plants.</p> <ul style="list-style-type: none"> ● I know the name a variety of common plants and trees. ● I know the differences between a variety of common plants and trees. ● I know the four seasons in order ● I know the weather associated with the seasons. ● I know that the day length varies from season to season.
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				<p>non-living thing</p> <ul style="list-style-type: none"> • I know the four seasons in order • I know the weather associated with the seasons. • I know that the day length varies from season to season. 	
Y2	<p>Uses of Everyday Materials</p> <ul style="list-style-type: none"> • Describe the simple physical properties of a variety of everyday materials • Compare and group together a variety of materials based on their simple physical properties • Explore how the shapes of solid objects can be 	<p>Animals including Humans</p> <ul style="list-style-type: none"> • Explain that animals grow and reproduce • Explain why animals have offspring which grow into adults • Describe the life cycle of some living things (e.g. egg, chick, chicken) 	<p>Animals including Humans</p> <ul style="list-style-type: none"> • Describe what animals need to survive • Explain the basic needs of animals, including humans for survival (water, food, air) • Describe the importance for humans of exercise, eating the right amounts of 	<p>Plants</p> <ul style="list-style-type: none"> • Describe what plants need to survive • Observe and describe how seeds and bulbs grow into mature plants • Investigate and describe the impact of removing light, soil or water from 	<p>Living Things and Their Habitats</p> <ul style="list-style-type: none"> • Match certain living things to the habitats they are found in • Explain the differences between living and non-living things • Describe some of the life processes common to plants and animals, including humans • Describe how a habitat provides for the basic needs of things living there • Describe how some animals get their food using basic food chains • Describe how plants and animals are suited to their habitat

	<p>changed (squashing, bending, twisting, stretching)</p> <ul style="list-style-type: none"> Identify and compare the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper, cardboard for particular uses <p>Key Vocabulary: opaque, transparent, twist/twisting, squash/squashing, bend/ bending, stretch/ stretching</p>	<p>Key Vocabulary: Adult, develop, diet, disease, exercise, germs, hygiene, life cycle, live young, nutrition, offspring, pulse, young</p>	<p>different types of food, and hygiene.</p> <p>Key Vocabulary: breathing, develop, diet, disease, exercise, germs, hygiene, nutrition, pulse, food types: meat, fish, vegetables, bread, rice, pasta</p>	<p>a growing or germinating plant.</p> <p>Key Vocabulary: light, shade, sun, warm, cool, water, grow, healthy, germinate</p>	<p>Key Vocabulary: living, dead, suited/ suitable, basic needs, food, food chain, shelter, move, feed, habitat</p>
Knowledge	<ul style="list-style-type: none"> I know the suitability of a variety of everyday materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard for particular uses. I know the shapes of solid objects made 	<ul style="list-style-type: none"> I know that animals, including humans, have offspring that grow into adults. I know that human offspring grow into adults. 	<ul style="list-style-type: none"> I know the basic needs of animals, including humans, for survival (water, food and air). I know the importance for humans of eating the right amounts of different types of food. 	<ul style="list-style-type: none"> I know bulbs grow into mature plants. I know seeds grow into mature plants. I know plants need water, light and a suitable temperature 	<ul style="list-style-type: none"> I know the differences between things that are living, dead, and things that have never been alive. I know most living things live in habitats to which they are suited. I know different habitats provide for the basic needs of different kinds of animals and plants. I know animals obtain their food from plants and other animals. I know the name of different sources of food.

	from some materials can be changed by squashing, bending, twisting and stretching.		<ul style="list-style-type: none"> • I know the importance for humans of exercise. • I know the importance to humans of hygiene. 	to grow and stay healthy.	<ul style="list-style-type: none"> • I know the name of a variety of plants and animals in their habitats, including micro-habitats.
Y3	<p>Light</p> <ul style="list-style-type: none"> • Recognise that they need light in order to see things • Recognise that dark is the absence of light • Notice that light is reflected from surfaces • Recognise that light from the sun can be dangerous and that there are ways to protect their eyes • Recognise that shadows are formed when the light from a light source is blocked by a solid object • Find patterns in the way that the size of shadows change 	<p>Rocks</p> <ul style="list-style-type: none"> • Compare and group together different 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 • Describe and explain the differences between sedimentary and igneous rocks, considering the way they are formed • Recognise that soils are made from rocks and organic matter 	<p>Animals including Humans</p> <ul style="list-style-type: none"> • Explain the importance of a nutritionally balanced diet • Describe how nutrients, water and oxygen are transported within animals and humans • Identify that animals, including humans, cannot make their own food: they get nutrition from what they eat • Describe and explain the skeletal system of a human • Describe and explain the muscular system of a human <p>Key Vocabulary: nutrition, nutrients, carbohydrates, sugars, protein, vitamins, minerals, fibre, fat, water, skeleton, bones, muscles, support, protect, move, skull, ribs, spine, muscles, joints</p>	<p>Forces and Magnets</p> <ul style="list-style-type: none"> • Compare how things move on different surfaces • Observe that magnetic forces can be transmitted without direct contact • Observe how some magnets attract or repel each other • Identify and classify which everyday materials are attracted to magnets and which are not • Notice that some forces need contact between two objects, but magnetic forces can act at a distance • Describe magnets have having two poles (N & S) and 	<p>Plants</p> <ul style="list-style-type: none"> • Identify and describe the functions of different parts of flowering plants (roots, stem/trunk, leaves and flowers) • Explore the requirement of plants for life and growth (air, light, water, nutrients from soil, and room to grow) • 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

	<p>Key Vocabulary: light, light source, dark, transparent, translucent, opaque, shadow, reflect, reflection</p>	<p>Key Vocabulary: rock, stone, pebble, boulder, grain, crystals, layers, hard, soft, absorb, water, soil, fossil, marble, sandstone, erosion, igneous rock, impermeable, lava, magma, metamorphic rock, permeable, sediment, sedimentary rock,</p>		<p>predict whether two magnets will attract or repel each other depending on which poles are facing</p> <ul style="list-style-type: none"> • Make and record a prediction before testing <p>Key Vocabulary: force, push, pull, twist, contact force, non-contact force, magnetic force, magnet, strength, bar magnet, ring magnet, button magnet, horseshoe magnet, attract, repel, magnetic material, metal, iron, steel, poles, north pole, south pole</p>	<p>Key Vocabulary: photosynthesis, pollen, insect/ wind pollination, seed formation, seed dispersal – wind dispersal, animal dispersal, water dispersal</p>
Knowledge	<ul style="list-style-type: none"> • I know I need light in order to see things and that dark is the absence of light. • I know that light is reflected from surfaces. • I know that light from the sun can 	<ul style="list-style-type: none"> • I know the simple physical properties of different kinds of rocks. • I know that soils are made from 	<ul style="list-style-type: none"> • I know that animals cannot make their own food. • I know that animals, including humans, need the right amounts and types of food. • I know the ways in which nutrients and water are transported within animals, including humans. 	<ul style="list-style-type: none"> • I know things move differently on different surfaces. • I know some magnetic materials. • I know that some forces need 	<ul style="list-style-type: none"> • I know where the roots are on common plants and I know the function of the roots. • I know the ways in which water is

	<p>be dangerous and that there are ways to protect our eyes.</p> <ul style="list-style-type: none"> • I know that shadows are formed when the light from a light source is blocked by a solid object. • I know that there are patterns in the way that the sizes of shadows change. 	<p>rocks and organic matter.</p>	<ul style="list-style-type: none"> • I know that humans and some animals have skeletons and muscles for support, protection and movement. 		<p>contact between two objects, but magnetic forces can act at a distance.</p> <ul style="list-style-type: none"> • I know when two magnets have the same poles facing they will repel each other but when two magnets have the opposite poles facing they will attract each other. • I know magnets attract or repel each other and attract some materials and not others. • I know magnets have two poles. 	<p>transported within plants.</p> <ul style="list-style-type: none"> • I know where the stem is on common plants and I know the function of the stem. • I know where the leaves are on common plants and I know the function of the leaves. • I know the requirements of plants for life and growth (air, light, water, nutrients from soil). • I know where the flower is on common plants and I know the function of the flower.
Y4	<p>Animals including Humans</p> <ul style="list-style-type: none"> • Identify, name and describe the functions of the basic 	<p>Sound</p> <ul style="list-style-type: none"> • Describe a range of sounds and explain how they are made 	<p>Sound</p> <ul style="list-style-type: none"> • Describe the relationship between the pitch of the sound and the features of its 	<p>Animals including Humans</p> <ul style="list-style-type: none"> • Identify the simple function of different types of teeth in humans 	<p>States of Matter</p> <ul style="list-style-type: none"> • Compare and group materials together, according to whether they are solids, liquids or gases 	<p>Electricity</p> <ul style="list-style-type: none"> • Identify common appliances that run on electricity • Construct a simple series electric circuit

	<p>parts of the digestive system in humans</p> <p>Key Vocabulary: digest, digestion, mouth, teeth, saliva, oesophagus, stomach, small intestine, nutrients, large intestine, rectum, anus</p> <p>Living Things and Their Habitats</p> <ul style="list-style-type: none"> • Recognise that living things can be grouped in a variety of ways • Classify and identify into broad groups • Explore and use a classification key to group, identify and name a variety of living things (plants, vertebrates, invertebrates) • Recognise that environments can change and this can sometimes pose a 	<ul style="list-style-type: none"> • Associate some sounds with something vibrating • Compare sources of sound and explain how the sounds differ • Explain how to change a sound (louder/softer) • Recognise how vibrations from sound travel through a medium to an ear <p>Key Vocabulary: absorb sound, amplitude, distance, eardrum, insulator, loud, particles, pitch (high, low), sound, soundproof, soundwave, source, travel, vacuum, vibrate, vibration, volume</p>	<p>source/object that produces it</p> <ul style="list-style-type: none"> • Find patterns between the volume of the sound and the strength of the vibrations that produced it, and the distance of the source • Investigate how different materials can affect the pitch and volume of sounds <p>Key Vocabulary: absorb sound, amplitude, distance, eardrum, faint, insulation, loud, particles, pitch (high, low), sound, soundproof, soundwave, source, travel, vacuum, vibrate, vibration, volume</p>	<ul style="list-style-type: none"> • Compare the teeth of herbivores and carnivores • Identify, construct and interpret a variety of food chains, identifying producers, predators and prey <p>Key Vocabulary: teeth, incisor, canine, molar, premolars, herbivore, carnivore, omnivore, producer, predator, prey, food chain</p>	<ul style="list-style-type: none"> • Explain what happens to materials when they are heated or cooled • Measure or research the temperature at which different materials change state in degrees Celsius • Describe how materials change state at different temperatures • Use measurements to explain changes to the state of water • Explain everyday phenomena including the water cycle <p>Key Vocabulary: solid, liquid, gas, state, change, melting, freezing, melting point, boiling point, evaporation, temperature, water cycle</p>	<ul style="list-style-type: none"> • Identify and name the basic part in a series circuit, including cells, wires, bulbs, switches and buzzers • Recogniser symbols to represent simple series circuit diagrams • Identify whether or not a lamp will light in a simple series circuit, based on whether or not the lamp is part of a complete loop with a battery • Recognise that a switch opens and closes a circuit • Associate a switch opening with whether or not a lamp lights in a simple series circuit • Recognise some common conductors and insulators • Associate metals with being good conductors
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	<p>danger to living things</p> <ul style="list-style-type: none"> • Explain how environmental changes have an impact on living things <p>Key Vocabulary: classification, classification keys, environment, habitat, human impact, positive, negative,</p>					<p>Key Vocabulary: electricity, electrical appliance/ device, mains, plug, electrical circuit, complete circuit, component, cell, battery, positive, negative, connect/ connections, loose connection, short circuit, crocodile clip, bulb, switch, buzzer, motor, conductor, insulator, metal, non-metal, symbol.</p>
Knowledge	<ul style="list-style-type: none"> • I know the simple functions of the basic parts of the digestive system in humans. • I know that living things can be grouped in a variety of ways. • I know the name of a variety of living things in their local and wider environment. 	<ul style="list-style-type: none"> • I know sounds are made when something vibrates. • I know that vibrations from a sound travel through a medium to the ear. 	<ul style="list-style-type: none"> • I know the strength of the vibrations effect the volume of a sound. • I know the features of an object that produce a sound determine the pitch of the sound. • I know that sounds get fainter as the distance from 	<ul style="list-style-type: none"> • I know the different types of teeth in humans and their simple functions. • I know some examples of producers, predators and prey. 	<ul style="list-style-type: none"> • I know whether materials are solids, liquids or gases. • I know that some materials change state when they are heated or cooled. • I know the temperature at which some materials change state in degrees Celsius (°C). • I know the part played by 	<ul style="list-style-type: none"> • I know some common appliances that run on electricity. • I know the names of the basic parts of a simple electrical circuit, including cells, wires, bulbs, switches and buzzers. • I know whether or not a lamp will light in a simple series circuit, based on

	<ul style="list-style-type: none"> I know that environments can change and that this can sometimes pose dangers to living things. 		the sound source increases.		evaporation and condensation in the water cycle <ul style="list-style-type: none"> I know temperature effects the rate of evaporation. 	whether or not the lamp is part of a complete loop with a battery. <ul style="list-style-type: none"> I know some common conductors and insulators. I know most metals are good conductors. I know that a switch opens and closes a circuit and that this determines whether or not a lamp lights in a simple series circuit.
Y5	Properties and Changes of Materials <ul style="list-style-type: none"> Compare and group together everyday materials on the basis of their properties, including hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets Explain how some materials dissolve in liquid to form a solution Explain what happens when dissolving occurs 	Forces <ul style="list-style-type: none"> Explain that unsupported objects fall towards the earth because of the force of gravity acting between the earth and the falling object 	Living Things and Their Habitats <ul style="list-style-type: none"> Describe the differences in the life cycles of a mammal, amphibians, an insects and a bird Identify the reproductive 	Earth and Space <ul style="list-style-type: none"> Identify and explain the movement of the Earth and other plants relative to the sun in the solar system Explain how seasons and the 	Animals including Humans <ul style="list-style-type: none"> Describe the changes as humans develop to old age Use basic ideas of inheritance, variation and adaptation to describe how living 	

	<ul style="list-style-type: none"> • Use their knowledge of solids, liquids and gases to decide and describe how mixtures might be separated, including through filtering, sieving, evaporating • Give reasons, based on evidence for comparative and fair tests for the particular uses of everyday materials, including metals wood and plastic • Describe changes using scientific words (evaporation, condensation) • 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 • Use the terms 'reversible' and 'irreversible' <p>Key Vocabulary: thermal/ electrical insulator/ conductor, change of state, mixture, dissolve, solution, soluble, insoluble, filter, sieve, reversible/ non-reversible change, burning, rusting, new material</p>	<ul style="list-style-type: none"> • Identify the effects of air resistance, water resistance and friction that act between moving surfaces • Recognise that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect <p>Key Vocabulary: force, gravity, Earth, air resistance, water resistance, friction, mechanisms, simple machines, levers, pulleys, gears</p>	<p>processes of some animals</p> <ul style="list-style-type: none"> • Describe the life cycles of common plants • Explore the work of well known naturalists and animal behaviourists (David Attenborough and Jane Goodall) <p>Key Vocabulary: life cycle, reproduce, sexual, sperm, fertilises, egg, live young, metamorphosis, asexual, plantlets, runners, bulbs, cuttings</p>	<p>associated weather is created</p> <ul style="list-style-type: none"> • Describe and explain the movement of the Moon relative to the Earth • Describe the sun, earth and moon as approximately spherical bodies • Use the idea of the earth's rotation to explain day and night and the apparent movement of the sun across the sky <p>Key Vocabulary: Earth, Sun, Moon, (Mercury, Jupiter, Saturn, Venus, Mars, Uranus, Neptune), spherical, solar system, rotates, star, orbit, planets</p>	<p>things have changed over time</p> <p>Key Vocabulary: puberty, ovary/ovaries, oestrogen, womb/ uterus, sperm, testicles/testes, hormones</p>
Knowledge	<ul style="list-style-type: none"> • I know some of the properties of everyday materials, including their conductivity of heat. • I know that some materials will dissolve in liquid to form a solution. 	<ul style="list-style-type: none"> • I know that unsupported objects fall towards the Earth because of 	<ul style="list-style-type: none"> • I know the differences in the life cycles of a mammal, an 	<ul style="list-style-type: none"> • I know the movement of the Earth, and other planets, relative 	<ul style="list-style-type: none"> • I know some of the changes that happen as humans develop

	<ul style="list-style-type: none"> • I know a substance can be recovered from a solution. • I know mixtures can be separated through filtering, sieving and evaporating. • I know the most appropriate way to separate a mixture based on the properties of the state of matter involved. • I know the particular uses of everyday materials, including metals, wood and plastic. • I know that dissolving, mixing and changes of state are reversible changes. • I know that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda. 		<p>the force of gravity acting between the Earth and the falling object.</p> <ul style="list-style-type: none"> • I know the effects of air resistance, water resistance and friction that act between moving surfaces. • I know that some mechanisms, including levers, pulleys and gears, allow a smaller force to have a greater effect. 	<p>amphibian, an insect and a bird.</p> <ul style="list-style-type: none"> • I know the life process of reproduction in some plants and animals. 	<p>to the Sun in the solar system.</p> <ul style="list-style-type: none"> • I know the Sun, Earth and Moon are approximately spherical bodies. • I know the movement of the Moon relative to the Earth. • I know day and night and the apparent movement of the Sun across the sky happens due to the idea of the Earth's rotation. 	<p>from birth to old age.</p>
Y6	<p>Light</p> <ul style="list-style-type: none"> • Recognise that light appears to travel in straight lines • Use the idea that light travels in straight lines to explain that objects are seen because they give out or 	<p>Animals including Humans</p> <ul style="list-style-type: none"> • Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood 	<p>Animals including Humans</p> <ul style="list-style-type: none"> • Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood 	<p>Light</p> <ul style="list-style-type: none"> • Recognise that light appears to travel in straight lines • Use the idea that light travels in straight lines to explain that objects are seen because 	<p>Living Things and Their Habitats</p> <ul style="list-style-type: none"> • Describe how living things are classified into broad groups according to common observable characteristics and based on similarities 	<p>Evolution and Inheritance</p> <ul style="list-style-type: none"> • Recognise that living things have changed over time and that fossils provide information about living things that inhabited the

	<p>reflect light into the eye</p> <ul style="list-style-type: none"> • Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes • Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them <p>Key Vocabulary: light, light source, shadow, reflection</p> <p>Electricity</p> <ul style="list-style-type: none"> • Identify and name the basic parts of a simple electric series circuit (cells, wires, bulbs, switches, buzzers) • Compare and give reasons for variations in how components function, including the brightness of 	<ul style="list-style-type: none"> • Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function • Describe the ways in which nutrients and water are transported within animals and plants, including humans <p>Key Vocabulary: heart, blood vessels, nutrients, water, circulatory system, drugs, pumps, blood, transported, lungs, oxygen, carbon dioxide, water, muscles, cycle, diet, exercise, drugs, lifestyle</p>	<ul style="list-style-type: none"> • Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function • Describe the ways in which nutrients and water are transported within animals and plants, including humans <p>Key Vocabulary: heart, pulse, rate, pumps, blood, blood vessels, transported, lungs, oxygen, carbon dioxide, nutrients, water, muscles, cycle, circulatory system, diet, exercise, drugs, lifestyle</p>	<p>they give out or reflect light into the eye</p> <ul style="list-style-type: none"> • Explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes • Use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them <p>Key Vocabulary: straight lines, light rays, light, light source, dark, absence of light, transparent, translucent, opaque, matt, shadow, reflect</p>	<p>and differences, including micro-organisms, plants and animals</p> <ul style="list-style-type: none"> • Give reasons for classifying plants and animals based on specific characteristics <p>Key Vocabulary: vertebrates, fish, amphibians, reptiles, birds, mammals, invertebrates, insects, spiders, snails, worms, flowering, non-flowering</p>	<p>earth millions of years ago</p> <ul style="list-style-type: none"> • Recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents • Give reasons why offspring are not identical to each other or to their parents • Explain the process of evolution and describe the evidence for this • Identify how animals and plants are adapted to suit their environment in different ways and that adaptation may lead to evolution <p>Key Vocabulary: offspring, sexual reproduction, vary, characteristics, suited, adapted, environment,</p>
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	<p>bulbs, the loudness of buzzers, the on/off position of switches</p> <ul style="list-style-type: none"> • Use recognised symbols when representing a simple circuit in a diagram <p>Key Vocabulary: amps, circuit, cell/ battery, current, electrons, resistance, voltage (Children do not need to understand what voltage is but will use volts and voltage to describe different batteries.)</p>					<p>inherited, species, fossils</p>
Knowledge	<ul style="list-style-type: none"> • I know that light appears to travel in straight lines. • I know that light travels in straight lines. • I know that objects are seen because they give out or reflect light into the eye. 	<ul style="list-style-type: none"> • I know the names of the main parts of the human circulatory system. • I know the functions of the heart, blood vessels and blood. 	<ul style="list-style-type: none"> • I know the names of the main parts of the human circulatory system. • I know the functions of the heart, blood vessels and blood. 	<ul style="list-style-type: none"> • I know that light appears to travel in straight lines. • I know that light travels in straight lines. • I know that objects are seen because they give out or reflect light into the eye. 	<ul style="list-style-type: none"> • I know common observable characteristics of living things. • I know similarities and differences of living things, including micro-organisms, plants and animals. 	<ul style="list-style-type: none"> • I know that living things have changed over time and that fossils provide information about living things that inhabited the Earth millions of years ago. • I know that living things produce

	<ul style="list-style-type: none"> ● 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. ● I know that shadows have the same shape as the objects that cast them because light travels in straight lines. ● I know recognised symbols that represent a simple circuit in a diagram. ● I know the number and voltage of cells used in the circuit effects the brightness of a 	<ul style="list-style-type: none"> ● I know the ways in which nutrients and water are transported within animals, including humans. 	<ul style="list-style-type: none"> ● I know the ways in which nutrients and water are transported within animals, including humans. 	<ul style="list-style-type: none"> ● 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. ● I know that shadows have the same shape as the objects that cast them because light travels in straight lines. 	<ul style="list-style-type: none"> ● I know specific characteristics of some plants and animals. 	<p>offspring of the same kind, but normally offspring vary and are not identical to their parents.</p> <ul style="list-style-type: none"> ● I know different ways in which animals and plants are adapted to suit their environment. ● I know that adaptation may lead to evolution.
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	<p>lamp or the volume of a buzzer.</p> <ul style="list-style-type: none">● I know reasons for variations in how components function, including the brightness of bulbs, the loudness of buzzers and the on/off position of switches.					
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