

Progression Document

Progression Documents

Our progression documents have been created by the Curriculum Leader and Science Subject Leader to ensure clear progress in the **disciplines: biology, physics and chemistry**

The progression document show key knowledge (substantive knowledge), key vocabulary and key skills (disciplinary knowledge) and assessment outcomes from EYFS – Year 6.

Physics

	Key knowledge progression to be explicitly taught throughout unit of work (and revised constantly through retrieval practice)	Key vocabulary All vocabulary on ARCHES Planners (to be explicitly taught)	Key skills progression	Assessment outcome
	<p><u>EYFS – A foundation of scientific skills and knowledge</u> Pupils should be taught to</p> <ul style="list-style-type: none"> • Ask questions • Talk about what they see using a wide vocabulary • Use talk to help work out problems and organise thinking and activities • To explain how things work and why they might happen • Articulate their ideas and thoughts in well-formed sentences • Use new vocabulary in different contexts • Explore how things work • Explore and talk about different forces they can feel 			
	<p><u>YEAR THREE - Light</u> Pupils should be taught to:</p> <ul style="list-style-type: none"> • 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 when the light from a light source is blocked by an opaque object • find patterns in the way that the size of shadows change. 	<p><u>YEAR THREE</u></p> <p>Light (noun) Dark (adjective) Light source (noun) Transparent (adjective) Translucent (adjective) Opaque (adjective) Shadow (noun) Reflect (verb) Mirror (noun)</p>	<p><u>YEAR THREE</u></p> <ul style="list-style-type: none"> • I know and can explain and demonstrate how a shadow is formed. • I know and can explain that light is reflected from a surface. • I know how to describe what dark is (the absence of light). • I know and can explain that light is needed in order to see. • I know and can explain the danger of direct sunlight and describe how to keep protected • I know how to explore shadow size and explain. 	<p><u>YEAR THREE</u></p>

	<p><u>YEAR THREE – Forces and Magnets</u> Pupils should be taught to</p> <ul style="list-style-type: none"> • compare how things move on different surfaces • notice that some forces need contact between two objects, but magnetic forces can act at a distance • observe how magnets attract or repel each other and attract some materials and not others • compare and group together a variety of everyday materials on the basis of whether they are attracted to a magnet, and identify some magnetic materials 	<p><u>YEAR THREE</u> Magnet (noun) Attract (verb) Repel (verb) Non-magnetic (adjective) Magnetic field (noun) Opposite (adjective) Surface (noun) Force (noun) Resistance (noun) Friction (noun)</p>	<p><u>YEAR THREE</u></p> <ul style="list-style-type: none"> • I know how to predict whether magnets will attract or repel and give a reason. • I know how to explore and describe how objects move on different surfaces. • I know how to explore and explain how objects attract and repel in relation to objects and other magnets. • I know and can describe how magnets work. • I know how to explain how some forces require contact and some do not, giving examples. • I know how to predict whether objects will be magnetic and carry out an enquiry to test this out. • I know that magnets have two poles and will attract or repel depending on which way the poles are facing. 	<p><u>YEAR THREE</u></p>
	<p><u>YEAR FOUR - Sound</u> Pupils should be taught to:</p> <ul style="list-style-type: none"> • 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 	<p><u>YEAR FOUR</u> Vibration (noun) Sound Wave (noun) Volume (noun) Amplitude (noun) Pitch (noun) Ear (noun) Particles (noun) Distance (noun) Soundproof (adjective) Absorb sound (verb) Vacuum (noun) Eardrum (noun)</p>	<p><u>YEAR FOUR</u></p> <ul style="list-style-type: none"> • I can explore the correlation between pitch and the object producing a sound. • I can describe how sound is made. • I can explain the place of vibration in hearing. • I can explore the correlation between the volume of a sound and the strength of the vibrations that produced it. • I can describe what happens to a sound as it travels away from its source. 	<p><u>YEAR FOUR</u></p>

			<ul style="list-style-type: none"> I can explain how sound travels from a source to our ears. 	
	<p><u>YEAR FOUR – Electricity</u> Pupils should be taught to:</p> <ul style="list-style-type: none"> 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 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. 	<p><u>YEAR FOUR</u> Electricity (noun) Appliance (noun) Battery (noun) Cell (noun) Buzzer (noun) Component (noun) Conductor (noun) Insulator (noun) Circuit (noun) Fuel (noun) Generate (verb)</p>	<p><u>YEAR FOUR</u></p> <ul style="list-style-type: none"> I can draw a circuit diagram. I can predict and test whether a lamp will light within a circuit. I can identify and name appliances that require electricity to function. I can describe the difference between a conductor and insulators, giving examples of each. I can identify and name the components in a series circuit (including cells, wires, bulbs, switches and buzzers). I can construct a series circuit. I can describe the function of a switch in a circuit. 	<p><u>YEAR FOUR</u></p>
	<p><u>YEAR FIVE – Earth and Space</u> Pupils should be taught to:</p> <ul style="list-style-type: none"> describe the movement of the Earth, and other planets, relative to the Sun in the solar system describe the movement of the Moon relative to the Earth describe the Sun, Earth and Moon as approximately spherical bodies use the idea of the Earth’s rotation to explain day and night and the apparent movement of the sun across the sky. 	<p><u>YEAR FIVE</u> Sun (noun) Moon (noun) Earth (noun) Planet (noun) Spherical (adjective) Solar system (noun) Rotate (verb) Star (noun) Orbit (noun)</p>	<p><u>YEAR FIVE</u></p> <ul style="list-style-type: none"> I can describe and explain the movement of the Moon relative to the Earth. I can explain and demonstrate how night and day are created. I can describe the Sun, Earth and Moon (using the term spherical). 	<p><u>YEAR FIVE</u></p>
	<p><u>YEAR FIVE – Forces</u> Pupils should be taught to:</p>	<p><u>YEAR FIVE</u> Force (noun)</p>	<p><u>YEAR FIVE</u></p>	<p><u>YEAR FIVE</u></p>

	<ul style="list-style-type: none"> explain that unsupported objects fall towards the Earth because of the force of gravity acting between the Earth and the falling object 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. 	Gravity (noun) Earth (noun) Air resistance (noun) Water resistance (noun) Friction (noun) Mechanism (noun) Simple machines (noun) Lever (noun) Pulley (noun) Gear (noun)	<ul style="list-style-type: none"> I can identify and explain the effect of air resistance. I can identify and explain the effect of friction. I can explain how levers, pulleys and gears allow a smaller force to have a greater effect. I can identify and explain the effect of water resistance. I can explain what gravity is and its impact on our lives. 	
	<u>YEAR SIX – Light</u> Pupils should be taught to: <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 reflect light into the eye explain that we see things because light travels from light sources to our eyes or from light sources to objects and then to our eyes use the idea that light travels in straight lines to explain why shadows have the same shape as the objects that cast them. 	<u>YEAR SIX</u> Light (noun) Light Source (noun) Dark (adjective) Transparent (adjective) Translucent (adjective) Opaque (adjective) Shiny (adjective) Matt (adjective) Surface (noun) Shadow (noun) Reflection (noun) Mirror (noun) Sunlight (noun) Dangerous (adjective) Straight lines (adjective) Light rays (noun)	<u>YEAR SIX</u> <ul style="list-style-type: none"> I can explain how light travels. I can explain and demonstrate how we see objects. I know we see things because light travels in straight lines from light sources to our eyes or from light sources to objects and then to our eyes I can explain why shadows have the same shape as the object that casts them. 	<u>YEAR SIX</u>
	<u>YEAR SIX - Electricity</u> Pupils should be taught to: <ul style="list-style-type: none"> associate the brightness of a lamp or the volume of a buzzer with the number and voltage of cells used in the circuit compare and give reasons for variations in how components function, including the brightness of 	<u>YEAR SIX</u> Circuit diagram (noun) Circuit symbol (noun) Cell (noun) Buzzer (noun) Motor (noun) Voltage (noun)	<u>YEAR SIX</u> <ul style="list-style-type: none"> I can draw circuit diagrams using correct symbols. (DT Link) I can explain how the number & voltage of cells in a circuit links to the brightness of a lamp or the volume of a buzzer. 	<u>YEAR SIX</u>

	<p>bulbs, the loudness of buzzers and the on/off position of switches</p> <ul style="list-style-type: none">• use recognised symbols when representing a simple circuit in a diagram.		<ul style="list-style-type: none">• I can compare and give reasons for why components work and do not work in a circuit.	
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Chemistry

	Key knowledge progression to be explicitly taught throughout unit of work (and revised constantly through retrieval practice)	Key vocabulary All vocabulary on ARCHES Planners (to be explicitly taught)	Key skills progression	Assessment outcome
	<p><u>EYFS – A foundation of scientific skills and knowledge</u> Pupils should be taught to</p> <ul style="list-style-type: none"> • Ask questions • Talk about what they see using a wide vocabulary • Use talk to help work out problems and organise thinking and activities • To explain how things work and why they might happen • Articulate their ideas and thoughts in well-formed sentences • Use new vocabulary in different contexts (linked to the vocabulary on the Year One ARCHES planners) • Explore collections of materials with similar and/or different properties • Talk about the differences between materials and the changes they notice • Use all of their senses in hands on exploration of natural materials 			
MATERIALS	<p><u>YEAR ONE – Everyday Materials</u> Pupils should be taught to:</p> <ul style="list-style-type: none"> • 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 	<p><u>YEAR ONE</u> Shiny (adjective) Dull (adjective) See-through (adjective) Not see-through (adjective) Smooth (adjective) Bendy (adjective) Waterproof (adjective) Object (noun) Material (noun) Wood (noun) Plastic (noun) Glass (noun) Metal (noun) Water (noun) Rock (noun)</p>	<p><u>YEAR ONE</u></p> <ul style="list-style-type: none"> • I know and can name wood, plastic, glass, metal, water and rock. • I know and can describe the properties of everyday materials. • I know and can explain the materials that an object is made from. • I know how to group objects based on the materials they are made from. • I know how to distinguish between an object and the material it is made from. 	<p><u>YEAR ONE</u> Annotate images of different objects with topic vocabulary to identify.</p> <p>Describing the properties of different materials within objects around the classroom.</p>

	<p><u>YEAR TWO – Uses of Everyday Materials</u> Pupils should be taught to:</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 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. 	<p><u>YEAR TWO</u> Materials (adjective) Absorbent (adjective) Property (noun) Rigid (adjective) Flexible (adjective) Suitable (adjective) Reflective (adjective) Opaque (adjective) Translucent (adjective) Transparent (adjective)</p>	<p><u>YEAR TWO</u></p> <ul style="list-style-type: none"> I know how to identify and name a range of materials, including wood, metal, plastic, glass, brick, rock, paper and cardboard. I know and can explore how shapes can be changed by squashing, bending, twisting and stretching. I know how to suggest why a material might or might not be used for a specific job. 	<p><u>YEAR TWO</u> Test materials for a purpose and describe how they can be used and why they would be suitable.</p>
	<p><u>YEAR THREE - Rocks</u> Pupils should be taught to:</p> <ul style="list-style-type: none"> compare and group together different kinds of rocks on the basis of their appearance and simple physical properties describe in simple terms how fossils are formed when things that have lived are trapped within rock recognise that soils are made from rocks and organic matter. 	<p><u>YEAR THREE</u> Crust (noun) Decay (verb) Fossil (noun) Geologist (noun) Igneous (adjective) Impermeable (adjective) Inner core (noun) Mantle (noun) Metamorphic (adjective) Microbe (noun) Permeable (adjective) Rock (noun) Sedimentary (adjective) Soil (noun)</p>	<p><u>YEAR THREE</u></p> <ul style="list-style-type: none"> I know and can describe how fossils are formed. I know and can describe how soil is made. I know and can compare and group rocks based on their appearance and physical properties, giving a reason. I know and can describe and explain the difference between sedimentary and igneous rock. 	<p><u>YEAR THREE</u></p>
	<p><u>YEAR FOUR – States of Matter</u> Pupils should be taught to:</p> <ul style="list-style-type: none"> compare and group materials together, according to whether they are solids, liquids or gases identify the part played by evaporation and condensation in the water cycle and associate the rate of evaporation with temperature 	<p><u>YEAR FOUR</u> Solid (adjective) Liquid (noun) Gas (noun) State change (verb) Melting point (noun) Boiling point (noun) Evaporation (noun) Temperature (noun) Water cycle (noun)</p>	<p><u>YEAR FOUR</u></p> <ul style="list-style-type: none"> I can group materials based on their state of matter (solid, liquid, gas). I can explore and describe how some materials can change state. I can measure the temperature at which materials change state. I can describe the water cycle. I can explain the part played by evaporation and condensation in the water cycle. 	<p><u>YEAR FOUR</u></p>

	<p><u>YEAR FIVE – Properties and Changes</u></p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> • compare and group together everyday materials on the basis of their properties, including their hardness, solubility, transparency, conductivity (electrical and thermal), and response to magnets • 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 • give reasons, based on evidence from comparative and fair tests, for the particular uses of everyday materials, including metals, wood and plastic • demonstrate that dissolving, mixing and changes of state are reversible changes • explain that some changes result in the formation of new materials, and that this kind of change is not usually reversible, including changes associated with burning and the action of acid on bicarbonate of soda. 	<p><u>YEAR FIVE</u></p> <p>Thermal (adjective) Electrical (adjective) Conductor (noun) Insulator (noun) Change of state (noun) Mixture (noun) Dissolve (verb) Solution (noun) Soluble (adjective) Insoluble (adjective) Filter (verb) Sieve (verb) Reversible change (noun) Non-reversible change (noun) Burning (adjective) Rusting (adjective) New material (noun)</p>	<p><u>YEAR FIVE</u></p> <ul style="list-style-type: none"> • I can give evidenced reasons why materials should be used for specific purposes. • I can describe how a material dissolves to form a solution; explaining the process of dissolving. • I can describe and show how to recover a substance from a solution. • I can explain how some changes result in the formation of a new material and that this is usually irreversible. • I know and can demonstrate that some changes are reversible and some are not. • I can describe how some materials can be separated. • I can demonstrate how materials can be separated (e.g. Through filtering, sieving and evaporating). • I can discuss reversible and irreversible changes. • I can compare and group materials based on their properties (e.g. hardness, solubility, transparency, conductivity, [electrical & thermal], and response to magnets). 	<p><u>YEAR FIVE</u></p>
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Biology

	Key knowledge progression to be explicitly taught throughout unit of work (and revised constantly through retrieval practice)	Key vocabulary All vocabulary on ARCHES Planners (to be explicitly taught)	Key skills progression	Assessment outcome
	<p><u>EYFS – A foundation of scientific skills and knowledge</u> Pupils should be taught to</p> <ul style="list-style-type: none"> • Ask questions • Talk about what they see using a wide vocabulary • Use talk to help work out problems and organise thinking and activities • To explain how things work and why they might happen • Articulate their ideas and thoughts in well-formed sentences • Use new vocabulary in different contexts (linked to the vocabulary on the Year One ARCHES planners) • Daily weather discussions • Understanding the effects of changing seasons on the natural world around us • Describe what they can see, hear and feel whilst outside • Explore the natural world around them • Begin to understand the need to care and respect for the natural environment and all living things • Recognise that some environments are different to the one which they live • Know some similarities and differences between the natural world around them and contrasting environments • Plant seeds and care for growing plants • Understand the key features of the life cycle of a plant and an animal • Make observation and drawings of animals and plants • Make healthy choices about food, drink, activity and toothbrushing 			

PLANTS	<p><u>YEAR ONE</u></p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> identify and name a variety of common wild and garden plants, including deciduous and evergreen trees identify and describe the basic structure of a variety of common flowering plants, including trees. 	<p><u>YEAR ONE</u></p> <p>Leaf (noun) Stem (noun) Root (noun) Flower (noun) Petal (noun) Seed (noun) Trunk (noun) Branch (noun) Bark (noun) Deciduous (adjective) Evergreen (adjective)</p>	<p><u>YEAR ONE</u></p> <ul style="list-style-type: none"> I know the name the roots, trunk, branches and leaves of a tree. I know the name the petals, stem, leaf and root of a plant. I know the name a variety of common wild and garden plants 	<p><u>YEAR ONE</u></p> <p>Name and label plants and trees.</p> <p>Label the parts of a flowering plant</p>
	<p><u>YEAR TWO</u></p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> 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. 	<p><u>YEAR TWO</u></p> <p>Seedlings (noun) Shoot (noun) Healthy (adjective) Temperature (noun) Germination (noun) Reproduction (noun) Nutrients (noun) Shade (noun) Bulb (noun)</p>	<p><u>YEAR TWO</u></p> <ul style="list-style-type: none"> I know and can describe how seeds and bulbs grow into plants. I know and can describe what plants need in order to grow and stay healthy (water, light & suitable temperature). 	<p><u>YEAR TWO</u></p> <p>Explain how different conditions effect how plants grow.</p> <p>Describe how plants that they have grown from seeds and bulbs have developed over time.</p>

ANIMALS INCLUDING HUMANS	<p><u>YEAR THREE</u> Pupils should be taught to:</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 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. 	<p><u>YEAR THREE</u> Roots (noun) Stem/trunk (noun) Leaves (noun) Photosynthesis (noun) Pollen (noun) Pollination (noun) Seed formation (noun) Seed dispersal (noun) Germination (noun)</p>	<p><u>YEAR THREE</u></p> <ul style="list-style-type: none"> I know and can explore and describe how water is transported within plants. I know and can describe the function of different parts of flowering plants and trees. I know and can describe the plant life cycle, especially the importance of flowers 	<p><u>YEAR THREE</u> Explain how water is transported in plants.</p> <p>Explain how brightly coloured petals assist successful pollination</p>
	<p><u>YEAR ONE</u> Pupils should be taught to:</p> <ul style="list-style-type: none"> identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals identify and name a variety of common animals that are carnivores, herbivores and omnivores describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets) identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense. 	<p><u>YEAR ONE</u> Herbivore (noun) Carnivore (noun) Omnivore (noun) Senses (noun) Fish (noun) Reptile (noun) Amphibian (noun) Head (noun) Body (noun) Eyes (noun) Ears (noun) Mouth (noun) Teeth (noun) Leg (noun) Tail (noun) Wing (noun) Claw (noun) Fin (noun) Scales (noun) Fur (noun)</p>	<p><u>YEAR ONE</u></p> <ul style="list-style-type: none"> I know the name a variety of animals including fish, amphibians, reptiles, birds and mammals. I know how to classify and name animals by what they eat (carnivore, herbivore and omnivore). 	<p><u>YEAR ONE</u> Label parts of the body.</p> <p>Can sort and group animals using similarities and differences.</p> <p>Can match the sense to the body part.</p>

		Beak (noun) Paw/hooves (noun)		
	<u>YEAR TWO</u> Pupils should be taught to: <ul style="list-style-type: none"> notice that animals, including humans, have offspring which grow into adults find out about and describe the basic needs of animals, including humans, for survival (water, food, and air) describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. 	<u>YEAR TWO</u> Hygiene (noun) Exercise (noun) Growth (noun) Heartbeat (noun) Breathing (verb) Life Cycle (noun) Germs (noun) Disease (noun) Nutrition (noun) Reproduce (verb) Offspring (noun) Healthy (noun)	<u>YEAR TWO</u> <ul style="list-style-type: none"> I can describe why exercise; a balanced diet and good hygiene are important for humans. I know some different sources of food for animals. I know and can describe what animals and humans need to survive. I know how to explain the basic stages in a life cycle for animals, including humans. 	<u>YEAR TWO</u> Create a life cycle chain and a small leaflet to explain how to keep your body healthy.
	<u>YEAR THREE</u> Pupils should be taught to: <ul style="list-style-type: none"> 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 identify that humans and some other animals have skeletons and muscles for support, protection and movement. 	<u>YEAR THREE</u> Nutrition (noun) Nutrients (noun) Carbohydrate (noun) Sugars (noun) Proteins (noun) Vitamins (nouns) Minerals (noun) Fibre (noun) Fats (noun) Water (noun) Skeleton (noun) Bones (noun) Muscles (noun) Joints (noun) Support (verb) Protect (verb) Move (verb) Skull (noun) Ribs (noun) Spine (noun)	<u>YEAR THREE</u> <ul style="list-style-type: none"> I know and can explain the importance of a nutritious, balanced diet. I know and can explain how nutrients, water and oxygen are transported within animals and humans. I know how to describe and explain the skeletal system of a human. I know how to describe and explain the muscular system of a human. 	<u>YEAR THREE</u>

	<p><u>YEAR FOUR</u></p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> 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 construct and interpret a variety of food chains, identifying producers, predators and prey. 	<p><u>YEAR FOUR</u></p> <p>Herbivore (noun) Carnivore (noun) Omnivore (noun) Producer (noun) Predator (noun) Prey (noun) Digestion (noun) Incisor (noun) Canine (noun) Molar (noun) Premolar (noun) Nutrients (noun) Absorb (verb)</p>	<p><u>YEAR FOUR</u></p> <ul style="list-style-type: none"> I can describe the functions of the organs in the human digestive system. I can identify and name the parts of the human digestive system. I can use food chains to identify producers, predators and prey. I can construct food chains to identify producers, predators and prey. I can describe the functions of different human teeth. I can identify and describe the different types of teeth in humans 	<p><u>YEAR FOUR</u></p>
	<p><u>YEAR FIVE</u></p> <p>Pupils should be taught to:</p> <ul style="list-style-type: none"> describe the changes as humans develop to old age. 	<p><u>YEAR FIVE</u></p> <p>Sensitivity (noun) Puberty (noun) External (adjective) Internal (noun) Change (verb) Develop (verb) Ovulation (noun) Biological (adjective) Reproduction (noun) Menstrual cycle (noun) Hormones (noun) Pituitary gland (noun) Uterus (noun) Fertilised Ovum (noun) Fallopian tube (noun) Vagina (noun) Cervix (noun) Womb (noun) Period (noun)</p>	<p><u>YEAR FIVE</u></p> <ul style="list-style-type: none"> I can create a timeline to indicate stages of growth in humans 	<p><u>YEAR FIVE</u></p>

	<p><u>YEAR SIX</u> Pupils should be taught to:</p> <ul style="list-style-type: none"> • identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood • recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function • describe the ways in which nutrients and water are transported within animals, including humans. 	<p><u>YEAR SIX</u> Heart (noun) Pulse (noun) Pulse rate (noun) Blood (noun) Blood vessels (noun) Transported (verb) Lungs (noun) Oxygen (noun) Carbon Dioxide (noun) Nutrients (noun) Water (noun) Muscles (noun) Cycle (noun) Circulatory system (noun) Diet (noun) Exercise (noun) Drugs (noun) Lifestyle (noun)</p>	<p><u>YEAR SIX</u></p> <ul style="list-style-type: none"> • I can identify and name the main parts of the human circulatory system. • I can describe the functions of the heart, blood vessels and blood. • I can recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function • I can describe the ways in which nutrients and water are transported within animals, including humans. 	<p><u>YEAR SIX</u></p>
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LIVING THINGS AND THEIR HABITATS	<u>YEAR TWO</u> Pupils should be taught to: <ul style="list-style-type: none"> • explore and compare the differences between things that are living, dead, and things that have never been alive • identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other • identify and name a variety of plants and animals in their habitats, including micro-habitats • describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. 	<u>YEAR TWO</u> Living (adjective) Non-living (adjective) Habitat (noun) Food chains (noun) Biomes (noun) Depend (adjective) Invertebrate (noun) Microhabitat (Noun) Minibeast (noun) Offspring (noun) Source (noun) Vegetation (noun) Vertebrate (noun)	<u>YEAR TWO</u> <ul style="list-style-type: none"> • I know and can describe how a specific habitat provides for the basic needs of things living there (plants and animals). • I know how to identify things that are living, dead and never lived. • I know how to identify and name plants and animals in a range of habitats. • I know how to match living things to their habitat. • I know and can describe how animals find their food. • I know how to explain a simple food chain 	<u>YEAR TWO</u> Explain in simple terms why an animal or plant is suited to a habitat.
	<u>YEAR FOUR</u> Pupils should be taught to: <ul style="list-style-type: none"> • recognise that living things can be grouped in a variety of ways • explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment • recognise that environments can change and that this can sometimes pose dangers to living things 	<u>YEAR FOUR</u> Classification key (noun) Environment (noun) Habitat (noun) Human impact (noun) Positive (adjective) Negative (adjective) Migrate (verb) Hibernate (verb) Invertebrate (noun) Vertebrate (noun) Fish (noun) Amphibian (noun) Reptile (noun) Bird (noun) Mammal (noun)	<u>YEAR FOUR</u> <ul style="list-style-type: none"> • I can use classification keys to group, identify and name living things. • I can describe how changes to an environment could endanger living things. • I can group living things in different ways. 	<u>YEAR FOUR</u> Research how environmental changes effect endangered animals and show research on a poster.

	<p><u>YEAR FIVE</u> Pupils should be taught to:</p> <ul style="list-style-type: none"> describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird describe the life process of reproduction in some plants and animals. 	<p><u>YEAR FIVE</u> Life cycle (noun) Reproduction (noun) Sexual (adjective) Sperm (noun) Fertilise (verb) Egg (noun) Live young (noun) Metamorphosis (noun) Asexual (adjective) Plantlets (noun) Runners (noun) Bulbs (noun) Cutting (noun)</p>	<p><u>YEAR FIVE</u></p> <ul style="list-style-type: none"> I can describe the life cycle of different living things, e.g. mammal, amphibian, insect, bird. I can describe the differences between different life cycles. I can describe the process of reproduction in plants I can describe the process of reproduction in animals. 	<p><u>YEAR FIVE</u> Using taught knowledge and secondary research, accurately draw, label and explain a plant and animal life cycle</p>
	<p><u>YEAR SIX</u> Pupils should be taught to:</p> <ul style="list-style-type: none"> describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals give reasons for classifying plants and animals based on specific characteristics 	<p><u>YEAR SIX</u> Vertebrate (noun) Invertebrate (noun) Warm-blooded (adjective) Cold-blooded (adjective) Insect (noun) Spider (noun) Snail (noun) Worm (noun) Flowering (adjective) Non-flowering (adjective) Mosses (noun) Ferns (noun) Conifers (noun)</p>	<p><u>YEAR SIX</u></p> <ul style="list-style-type: none"> I can describe how living things have been classified. I can classify living things into broad groups according to observable characteristics and based on similarities & differences. 	<p><u>YEAR SIX</u></p>
<p>SEASONAL CHANGES</p>	<p><u>YEAR ONE</u> Pupils should be taught to:</p> <ul style="list-style-type: none"> observe changes across the four seasons observe and describe weather associated with the seasons and how day length varies. 	<p><u>YEAR ONE</u> Seasons (noun) Evergreen (adjective) Deciduous (adjective) Weather (noun) Autumn (noun) Winter (noun) Spring (noun)</p>	<p><u>YEAR ONE</u></p> <ul style="list-style-type: none"> I know and can observe and comment on changes in the seasons. I know and can name the seasons and suggest the type of weather in each season. 	<p><u>YEAR ONE</u> Create a booklet to show a deciduous tree in the season you are look at, include the 3 months in that season, what activities can be done, clothes that are worn and changes to the weather.</p>

		Summer (noun)		
EVOLUTION AND INHERITANCE	<u>YEAR SIX</u> Pupils should be taught to: <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 Earth millions of years ago recognise that living things produce offspring of the same kind, but normally offspring vary and are not identical to their parents 	<u>YEAR SIX</u> Offspring (noun) Sexual reproduction (adjective) Variation (noun) Characteristics (noun) Suited (adjective) Adapted (verb) Environment (noun) Inherited (adjective) Species (noun) Fossils (noun)	<u>YEAR SIX</u> <ul style="list-style-type: none"> I can describe how the earth and living things have changed over time. I can explain evolution. I can link adaptation over time to evolution. I can explain how animals and plants are adapted to suit their environment. I can explain about reproduction and offspring (recognising that offspring normally vary and are not identical to their parents). I can explain how fossils can be used to find out about the past. 	<u>YEAR SIX</u>