



Progression of knowledge, vocabulary, skills and suggested assessment outcomes in Biology



	Key knowledge progression <u>to be explicitly taught throughout unit of work (and revised constantly through retrieval practice)</u>	Key vocabulary <u>All vocabulary on Crown Planners (to be explicitly taught)</u>	Key skills progression	Assessment outcome
	<p>EYFS – A foundation of scientific skills and knowledge 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 crown planners) <ul style="list-style-type: none">• 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			



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<p>PLANTS</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 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> Leaf (noun) Stem (noun) Root (noun) Bulb (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> <u>Name and label plants and trees. Use a selection of vegetables for the children to identify, name and suggest which part of the plant can be eaten—leaves (spinach, cabbage, lettuce); root (carrot, turnip, radish); stem (celery, rhubarb); flower (broccoli, cauliflower) and seeds (corn or peas) depending upon the plant. Creative role-play for writing (florist sending and receiving bouquet orders using common, wild or garden flowers)</u></p>
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				<p><u>Label the parts of a flowering plant</u> <u>Put key vocab on the board for the children to use in their writing.</u></p>
	<p><u>YEAR TWO</u> 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> Seedlings (noun) Shoot (noun) Suitable (noun) Healthy (adjective) Temperature (noun) Germination (noun) Reproduction (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> <u>Explain how different conditions effect how plants grow.</u></p>

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	<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> Flower (noun) Roots (noun) Blossom (noun/verb) Pollination (noun) Pollinate (verb) Seed dispersal (noun) Transported (verb) Seed (noun) Deciduous (adjective) Evergreen (adjective)</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> <u>Explain how water is transported in plants.</u> <u>Explain how brightly coloured petals assist successful pollination.</u></p>

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ANIMALS INCLUDING HUMANS	<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)</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></p>
	<p><u>YEAR TWO</u> Pupils should be taught to:</p> <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. 	<p><u>YEAR TWO</u> Hygiene (noun) Survival (noun) Nutrition (noun) Reproduce (verb) Offspring (noun) Healthy (noun)</p>	<p><u>YEAR TWO</u></p> <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. 	<p><u>YEAR TWO</u></p>



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	<p><u>YEAR THREE</u> Pupils should be taught to:</p> <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. 	<p><u>YEAR THREE</u> Nutrition (noun) Vitamins (nouns) Minerals (noun) Carbohydrate (noun) Fats (noun) Proteins (noun) Vertebrate (noun) Invertebrate (noun)</p>	<p><u>YEAR THREE</u></p> <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. 	<p><u>YEAR THREE</u></p>
	<p><u>YEAR FOUR</u> 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> Nutrition (noun) Predator (noun) Prey (noun) Producer (noun) Contraction (noun) Absorb (verb) Digestion (noun)</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> 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> Puberty (noun) Reproduce (verb) Toddler (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>



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		<p>Adolescence (noun) Adulthood (noun) Gestation (noun) Foetus (noun) Sexual (noun) Asexual (noun) Reproduction (noun)</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> Skeleton (noun) Digestion (verb) Circulation (verb) Blood vessels (noun) Circulatory system (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) Ocean (noun) Rainforest (noun) Dependable (adjective)	<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>EYFS</u>
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	<p>YEAR FOUR Pupils should be taught to:</p> <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 	<p>YEAR FOUR Amphibian (noun) Invertebrate (noun) Vertebrate (noun) Characteristic (noun) Environment (noun) Ecology (noun) Population (noun) Development (noun)</p>	<p>YEAR FOUR</p> <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. 	<p>YEAR FOUR <u>Research how environmental changes effect endangered animals and show research on a poster.</u></p>
	<p>YEAR FIVE 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>YEAR FIVE Mammal (noun) Habitat (noun) Gestation (noun) Amphibian (noun) Sexual (adjective) Asexual (adjective) Reproduction (noun)</p>	<p>YEAR FIVE</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>YEAR FIVE <u>Using taught knowledge and secondary research, accurately draw, label and explain a plant and animal life cycle.</u></p>

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	<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> Micro-organism (noun) Vertebrate (noun) Invertebrate (noun) Fungi (noun) Species (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>	<p><u>YEAR ONE</u> Wind (noun)</p>	<p><u>YEAR ONE</u></p>	<p><u>YEAR ONE</u></p>



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	<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. 	Rain (noun) Weather symbol (noun) Deciduous (adjective) Autumn (noun) Winter (noun) Spring (noun) Summer (noun)	<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. 	
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> Evolution (noun) Inheritance (noun) Traits (noun) Offspring (noun) DNA (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>