




Scientific Skills Progression

*Note: It is expected that children and adults should use the vocabulary from previous year groups as they progress and where appropriate.

By the end of ...	<h3 style="text-align: center;">ANIMALS, INCLUDING HUMANS</h3> 	Year group taught in
Key Stage 1	<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>Vocabulary children should use: names of common animals (eat other animals), names of common animals (eat plants), names of common animals (eat plants and animals), wild animals, pets, body, head, neck, arms, elbows, legs, knees, face, ears, eyes, eyebrows, eyelashes, nose, hair, mouth, teeth, tongue, feet, toes, fingers, nails, ankle, calf, thigh, hips, waist, trunk, chest, shoulders, back, hands, wrist, tail, wing, claw, fin, scales, feathers, fur, beak, senses, hear/hearing, see/seeing, touch/touching, smell/smelling, taste/tasting</p> <p>Vocabulary adults should use: amphibians, reptiles, mammals, carnivores, herbivores, omnivores</p>	Year 1
	<ul style="list-style-type: none"> • Notice that animals, including humans, have offspring which grow into adults • Find out about and describe the basic need 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>Vocabulary children should use: offspring, babies, young, grow, change, adults, older, younger, baby, toddler, child, teenager, basic needs, water, food, air, breathing, survival, exercise, food types, fruit, vegetable, bread, rice, potato, pasta, milk, dairy foods, foods high in fat or sugar, meat, fish, egg, beans, hygiene, clean, wash, healthy, medicine, drugs</p> <p>Vocabulary adults should use: reproduction, life cycles, develop</p>	Year 2



Scientific Skills Progression

*Note: It is expected that children and adults should use the vocabulary from previous year groups as they progress and where appropriate.

	<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>Vocabulary children should use: nutrition, nutrients, food types, fruit and vegetable, bread, rice, potato, pasta, milk and dairy foods, foods high in fat or sugar, meat, fish, egg, beans, carbohydrates, protein, vitamins and mineral, fat, dietary fibre, water, balanced diet, skeleton, muscles, support, protection, movement, skull, ribs, vertebra, joints, sockets, bones, tendons</p> <p>Vocabulary adults should use: vertebrate/invertebrate</p>	Year 3
Key Stage 2	<ul style="list-style-type: none"> Describe the simple functions of the 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>Vocabulary children should use: digestive systems, nutrition, nutrients, mouth, teeth, canines, incisor, molar, pre-molar, saliva, tongue, rip, tear, chew, grind, cut, oesophagus (gullet), stomach, small intestine, large intestine, rectum ,anus, carnivore, herbivore, omnivore, producer, consumer, predator, prey, food chain</p>	Year 4
	<ul style="list-style-type: none"> Describe the changes as humans develop to old age. <p>Vocabulary children should use: gestation, life cycle, sperm, egg, foetus, gestation, development, nutrition, uterus, baby, child, adolescence, adolescent, puberty, teenager, adult, aging, old age, elderly, growth, change, death, reproduction</p>	Year 5



Scientific Skills Progression

*Note: It is expected that children and adults should use the vocabulary from previous year groups as they progress and where appropriate.

	<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>Vocabulary children should use: circulatory system, heart, blood, blood vessels, blood cells, pumps, oxygen, carbon dioxide, lungs, nutrients, water, diet, exercise, drugs, lifestyle, arteries, veins, capillaries, addiction, disease, medicine</p> <p>Vocabulary adults should use: respiratory system, red blood cells, white blood cells, plasma, platelets</p>	Year 6
--	--	---------------



Scientific Skills Progression

*Note: It is expected that children and adults should use the vocabulary from previous year groups as they progress and where appropriate.

Key Stage 3	<p>The skeletal and muscular systems</p> <ul style="list-style-type: none"> • <i>Recognise</i> the structure and functions of the human skeleton, to include support, protection, movement and making blood cells • <i>Recognise the idea of</i> biomechanics – the interaction between skeleton and muscles, including the measurement of force exerted by different muscles • <i>Recognise</i> the function of muscles and examples of antagonistic muscles. 	Year 7, 8 or 9
	<p>Nutrition and digestion</p> <ul style="list-style-type: none"> • <i>Recognise the</i> content of a healthy human diet: carbohydrates, lipids (fats and oils), proteins, vitamins, minerals, dietary fibre and water, and why each is needed • <i>Carry out</i> calculations of energy requirements in a healthy daily diet • <i>Recognise</i> the consequences of imbalances in the diet, including obesity, starvation and deficiency diseases • <i>Identify</i> the tissues and organs of the human digestive system, including adaptations to function and <i>explain</i> how the digestive system digests food (enzymes simply as biological catalysts) • <i>Recognise</i> the importance of bacteria in the human digestive system • <i>Describe how</i> plants make carbohydrates in their leaves by photosynthesis and gain mineral nutrients and water from the soil via their roots. 	
	<p>Gas exchange systems</p> <ul style="list-style-type: none"> • <i>Recognise</i> the structure and functions of the gas exchange system in humans, including adaptations to function • <i>Describe</i> the mechanism of breathing to move air in and out of the lungs, using a pressure model to explain the movement of gases, including simple measurements of lung volume • <i>Recognise</i> the impact of exercise, asthma and smoking on the human gas exchange system • <i>Recognise</i> the role of leaf stomata in gas exchange in plants. 	
	<p>Reproduction</p> <ul style="list-style-type: none"> • <i>Describe</i> reproduction in humans (as an example of a mammal), including: <ul style="list-style-type: none"> ○ the structure and function of the male and female reproductive systems, ○ menstrual cycle (without details of hormones), ○ gametes, ○ fertilisation, ○ gestation and birth (to include the effect of maternal lifestyle on the foetus through the placenta). 	
	<p>Health</p> <ul style="list-style-type: none"> • <i>Recognise</i> the effects of recreational drugs (including substance misuse) on behaviour, health and life processes. 	



Scientific Skills Progression

*Note: It is expected that children and adults should use the vocabulary from previous year groups as they progress and where appropriate.