

Staplegrave Church School
Knowledge and Skills Progression in Science
Animals including humans

Year group	Knowledge	Skills	Unit
1	<p>Different animal groups have some common body parts, such as eyes and a mouth, and some different body parts, such as fins or wings.</p> <p>Animals are living things. Animals can be sorted and grouped into six main groups: fish, amphibians, reptiles, birds, invertebrates and mammals.</p> <p>Carnivores eat other animals (meat), herbivores eat plants and omnivores eat other animals and plants.</p> <p>The basic body parts are the head, arms, legs, nose, eyes, ears, mouth, hands and feet. The five senses are hearing, sight, smell, taste and touch. Ears are used for hearing, eyes are used to see, the nose is used to smell, the tongue is used to taste and skin gives the sense of touch.</p>	<p>Label and describe the basic structures of a variety of common animals, including fish, amphibians, reptiles, birds and mammals.</p> <p>Identify, compare, group and sort a variety of common animals, including fish, amphibians, reptiles, birds, invertebrates and mammals, based on observable features.</p> <p>Group and sort a variety of common animals based on the foods they eat.</p> <p>Draw and label the main parts of the human body and say which body part is associated with which sense.</p>	<p>Animal Parts Human Senses</p> <p>Animal Parts Human Senses</p> <p>Animal Parts</p> <p>Human Senses</p>
2	<p>Human offspring go through different stages as they grow to become adults. These include baby, toddler, child, teenager, adult and elderly.</p> <p>A healthy lifestyle includes exercise, good personal hygiene, good quality sleep and a balanced diet. Risks associated with an unhealthy lifestyle include obesity, tooth decay and mental health problems.</p> <p>Humans need water, food, air and shelter to survive.</p> <p>Animals need water, food, air and shelter to survive. Their habitat must provide all these things.</p>	<p>Describe the stages of human development (baby, toddler, child, teenager, adult and elderly).</p> <p>Describe the importance of a healthy lifestyle, including exercise, a balanced diet, good quality sleep and personal hygiene.</p> <p>Describe what humans need to survive.</p> <p>Explain how animals, including humans, need water, food, air and shelter to survive.</p>	<p>Animal Survival Human Survival</p> <p>Human Survival</p> <p>Human Survival</p> <p>Animal Survival Human Survival</p>

<p>3</p>	<p>Humans have a skeleton and muscles for movement, support and protecting organs. Major bones in the human body include the skull, ribs, spine, humerus, ulna, radius, pelvis, femur, tibia and fibula. Major muscle groups in the human body include the biceps, triceps, abdominals, trapezius, gluteals, hamstrings, quadriceps, deltoids, gastrocnemius, latissimus dorsi and pectorals.</p> <p>Some animals have skeletons for support, movement and protection. Endoskeletons are those found inside some animals, such as humans, cats and horses. Exoskeletons are those found on the outside of some animals, such as beetles and flies. Some animals have no skeleton, such as slugs and jellyfish.</p> <p>Animals cannot make their own food and need to get nutrition from the food they eat. Carnivores get their nutrition from eating other animals. Herbivores get their nutrition from plants. Omnivores get their nutrition from eating a combination of both plants and other animals.</p> <p>Humans have to get nutrition from what they eat. It is important to have a balanced diet made up of the main food groups, including proteins, carbohydrates, fruit and vegetables, dairy products and alternatives, and fats and spreads. Humans need to stay hydrated by drinking water.</p>	<p>Describe how humans need the skeleton and muscles for support, protection and movement.</p> <p>Identify and group animals that have no skeleton, an internal skeleton (endoskeleton) and an external skeleton (exoskeleton).</p> <p>Compare and contrast the diets of different animals.</p> <p>Explain the importance and characteristics of a healthy, balanced diet.</p>	<p>Skeletal and ...</p> <p>Skeletal and ...</p> <p>Skeletal and ...</p> <p>Cook Well, Eat ...</p>
<p>4</p>	<p>Food chains show what animals eat within a habitat and how energy is passed on over time. All food chains start with a producer, which is typically a green plant. The producer is eaten by a primary consumer (prey), which is eaten by a secondary consumer (prey), which is eaten by a tertiary consumer. All food chains end with a top or apex predator. Changes within a food chain, such as an abundance or lack of one food type, have an impact on the entire food chain.</p>	<p>Construct and interpret a variety of food chains and webs to show interdependence and how energy is passed on over time.</p>	

	<p>There are four different types of teeth: incisors, canines, premolars and molars. Incisors are used for cutting. Canines are used for tearing. Premolars and molars are used for grinding and chewing. Carnivores, herbivores and omnivores have characteristic types of teeth. Herbivores have many large molars for grinding plant material. Carnivores have large canines for killing their prey and tearing meat.</p> <p>The digestive system is responsible for digesting food and absorbing nutrients and water. The main parts of the digestive system are the mouth, oesophagus, stomach, small intestines, large intestines and rectum. The mouth starts digestion by chewing food and mixing it with saliva. The oesophagus transports the chewed food to the stomach, where it mixes with stomach acid and gets broken down into smaller pieces. In the small intestine, nutrients from the food are absorbed by the body. In the large intestine, water is absorbed by the body. The remaining undigested waste is stored in the rectum before excretion through the anus.</p>	<p>Identify the four different types of teeth in humans and other animals, and describe their functions.</p> <p>Describe the purpose of the digestive system, its main parts and each of their functions.</p>	<p>Digestive System</p>
<p>5</p>	<p>Humans go through characteristic stages as they develop towards old age. These stages include baby, infant, toddler, child, adolescent, young adult, adult and senior citizen. Puberty is the transition between childhood and adulthood.</p> <p>The role of the circulatory system is to transport oxygen, water and nutrients around the body. They are transported in blood and delivered to where they are needed.</p>	<p>Describe the changes as humans develop from birth to old age.</p> <p>Explain that the circulatory system in animals transports oxygen, water and nutrients around the body.</p>	<p>Human respiratory</p>
<p>6</p>	<p>Lifestyle choices can have a positive (exercise and eating healthily) or negative (drugs, smoking and alcohol) impact on the body.</p>	<p>Explain the impact of positive and negative lifestyle choices on the body.</p>	

	<p>The circulatory system includes the heart, blood vessels and blood. The heart pumps blood through the blood vessels and around the body. There are three types of blood vessel: arteries, veins and capillaries. They each have a different-sized hole (lumen) and walls. The blood carries gases (oxygen and carbon dioxide), water and nutrients to where they are needed. The red blood cells carry oxygen and carbon dioxide around the body. The blood also contains white blood cells, which protect the body from infection.</p>	<p>Name and describe the purpose of the circulatory system and the functions of the heart, blood vessels and blood.</p>	<p>Circulatory System</p>
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