



Porters Grange Primary School

## Science Learning Sequence

### Animals Including Humans (Biology)

Nursery/ Reception	<ul style="list-style-type: none"><li>• Children know about similarities and differences in relation to places, objects, materials and living things.</li></ul>
Year 1	<ul style="list-style-type: none"><li>• Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals</li><li>• Identify and name a variety of common animals that are carnivores, herbivores and omnivores</li><li>• Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets)</li><li>• Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.</li><li>• <b>Vocabulary: (Parts of the body)</b> head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, body, mouth, teeth, penis, testicles, vulva, tail, wing, claw, fin, scales, feathers, fur, beak, paws, hooves</li><li>• <b>(Senses)</b> touch, see, smell, taste, hear, fingers (skin), eyes, nose, ear and tongue</li></ul>
Year 2	<ul style="list-style-type: none"><li>• Notice that animals, including humans, have offspring which grow into adults</li><li>• Find out about and describe the basic needs of animals, including humans, for survival (water, food and air)</li><li>• Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene.</li><li>• <b>Vocabulary: Offspring, reproduction, growth, child, young/old stages (examples - chick/hen, baby/child/adult, caterpillar/butterfly), exercise, heartbeat, breathing, hygiene, germs, disease, food types (examples – meat, fish, vegetables, bread, rice, pasta)</b></li><li>• <i>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. (Y2 - Living things and their habitats)</i></li></ul>
Year 3	<ul style="list-style-type: none"><li>• 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</li><li>• Identify that humans and some other animals have skeletons and muscles for support, protection and movement.</li><li>• <b>Vocabulary: Nutrition, nutrients, carbohydrates, sugars, protein, vitamins, minerals, fibre, fat, water, skeleton, bones, muscles, joints, support, protect, move, skull, ribs, spine</b></li></ul>
Year 4	<ul style="list-style-type: none"><li>• Describe the simple functions of the basic parts of the digestive system in humans</li><li>• Identify the different types of teeth in humans and their simple functions</li><li>• Construct and interpret a variety of food chains, identifying producers, predators and prey.</li></ul>

	<ul style="list-style-type: none"> <li>• Vocabulary: Digestive system, digestion, mouth, teeth, saliva, oesophagus, stomach, small intestine, nutrients, large intestine, rectum, anus, teeth, incisor, canine, molar, premolars, herbivore, carnivore, omnivore, producer, predator, prey, food chain</li> </ul>
Year 5	<ul style="list-style-type: none"> <li>• Describe the changes as humans develop to old age.</li> <li>• Vocabulary: Puberty – the vocabulary to describe sexual characteristics refer to Yasmin and Tom RSE programme</li> <li>• Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. (Y5 - Living things and their habitats)</li> <li>• Describe the life process of reproduction in some plants and animals. (Y5 - Living things and their habitats)</li> </ul>
Year 6	<ul style="list-style-type: none"> <li>• Identify and name the main parts of the human circulatory system, and describe the functions of the heart, blood vessels and blood</li> <li>• Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function</li> <li>• Describe the ways in which nutrients and water are transported within animals, including humans.</li> <li>• Vocabulary: Heart, pulse, rate, pumps, blood, blood vessels, transported, lungs, oxygen, carbon dioxide, nutrients, water, muscles, cycle, circulatory system, diet, exercise, drugs, lifestyle</li> <li>• Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals. (Y6 - Living things and their habitats)</li> <li>• Give reasons for classifying plants and animals based on specific characteristics. (Y6 - Living things and their habitats)</li> </ul>
Key Stage 3	<ul style="list-style-type: none"> <li>• Reproduction in humans (as an example of a mammal), including 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.</li> <li>• The consequences of imbalances in the diet, including obesity, starvation and deficiency diseases.</li> <li>• The effects of recreational drugs (including substance misuse) on behaviour, health and life processes.</li> <li>• The structure and functions of the gas exchange system in humans, including adaptations to function.</li> <li>• The mechanism of breathing to move air in and out of the lungs.</li> <li>• The impact of exercise, asthma and smoking on the human gas exchange system.</li> </ul>