



Year One – Animals including Humans

National Curriculum Objectives:

- 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.

Non statutory: *Pupils should use the local environment throughout the year to explore and answer questions about animals in their habitat. They should understand how to take care of animals taken from their local environment and the need to return them safely after study. Pupils should become familiar with the common names of some fish, amphibians, reptiles, birds and mammals, including those that are kept as pets.*

*Pupils should have plenty of opportunities to learn the names of the main body parts (including head, neck, arms, elbows, legs, knees, face, ears, eyes, hair, mouth, teeth) through games, actions, songs and rhymes.*

*Pupils might work scientifically by: using their observations to compare and contrast animals at first hand or through videos and photographs, describing how they identify and group them; grouping animals according to what they eat; and using their senses to compare different textures, sounds and smells*

Inspiring science key ideas:

- Identify, name, draw and label the basic parts of the human body and say which part of the body is associated with each sense.
- 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, and including pets).

Working scientifically

- Using their observations to compare and contrast animals [humans] at first hand or through videos and photographs.
- Using their senses to compare different textures, sounds and smells.
- Using their observations to compare and contrast animals at first hand or through videos and photographs.
- Describing how they identify and group them..
- Grouping animals according to what they eat.
- Using their senses.

Prior learning	Key Learning – What the pupils need to know		Vocabulary
<p>In Early Years:</p> <ul style="list-style-type: none"> <li>• Children should be able to identify different parts of their body.</li> <li>• Have some understanding of healthy food and the need for variety in their diets.</li> <li>• Be able to show care and concern for living things.</li> <li>• Know the effects exercise has on their bodies.</li> <li>• Have some understanding of growth and change.</li> <li>• Can talk about things they have observed including animals.</li> </ul>	<ul style="list-style-type: none"> <li>□ Recognise that humans are animals.</li> <li>□ Compare and describe differences in their own features (eye, hair, skin colour, etc.).</li> <li>□ Recognise that humans have many similarities.</li> </ul>	<ul style="list-style-type: none"> <li>□ Find out and describe how animals look different to one another.</li> <li>□ Group together animals according to their different features</li> <li>□ Recognise similarities between animals: Structure: head, body, way of moving, senses, body covering, tail.</li> <li>□ Animals have senses to explore the world around them and to help them to survive.</li> <li>□ Recognise that animals need to be treated with care and sensitivity to keep them alive and healthy.</li> <li>□ Animals are alive; they <b>move, feed</b>, grow, use their <b>senses</b> and reproduce.</li> </ul>	<p>Words linking to the senses: Parts of the body for humans: Comparative language: Describe, observe, compare Expressions making generalisations e.g. 'we all...'</p> <p>Parts of the body for animals Features linked to movement Features linked to body covering Common animal types; mammal, bird, fish, amphibians, reptiles Comparative language:</p>
<p>In Year Two:</p> <ul style="list-style-type: none"> <li>• Know that animals, including humans, have offspring which grow into adults</li> <li>• Know the basic stages in a life cycle for animals, including humans.</li> <li>• Find out 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> </ul>			



Year Two – Animals including Humans – Survival and growth

National Curriculum Objectives:

- Know that animals, including humans, have offspring which grow into adults
- Know the basic stages in a life cycle for animals, including humans.
- Find out 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.

Non statutory: *Pupils should be introduced to the basic needs of animals for survival, as well as the importance of exercise and nutrition for humans. They should also be introduced to the processes of reproduction and growth in animals. The focus at this stage should be on questions that help pupils to recognise growth; they should not be expected to understand how reproduction occurs. The following examples might be used: egg, chick, chicken; egg, caterpillar, pupa, butterfly; spawn, tadpole, frog; lamb, sheep. Growing into adults can include reference to baby, toddler, child, teenager, adult. Pupils might work scientifically by: observing, through video or first-hand observation and measurement, how different animals, including humans, grow; asking questions about what things animals need for survival and what humans need to stay healthy; and suggesting ways to find answers to their questions*

Inspiring science key ideas:

- Notice that animals, have offspring which grow into adults.
- Find out about and describe the basic needs of animals, for survival (water, food and air).

Working scientifically

- *observing, through video or first-hand observation and measurement, how different animals grow; asking questions about what things animals need for survival suggesting ways to find answers to their questions.*

Draw on learning from

Health: Animals, including Humans How we Grow and Stay Healthy

Draw on learning from

Environment: Living things and their habitats

Vocabulary

Living, dead, never alive, habitats, micro-habitats, food, food chain, leaf litter, shelter, sea shore, woodland, ocean, rainforest, conditions, desert, damp, shade

Words relating to health e.g. diet, variety, germ, healthy/unhealthy, medicines, safety, packaging, exercise.

Prior learning

- In Year One:
- 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.

See curriculum overview for sequence of learning

Life cycles and observing growth of *other animals* (besides humans) is included in the 'YR2 Environment: Living Things and their Habitats' unit.

The opportunities in the health unit just consider human health, growth and change. Life cycles of other animals can either be taught here alongside human life cycles and changes during growth or alongside the Y2 'Living

Key Learning – What the pupils need to know

*Pupils should be introduced to the basic needs of animals for survival. They should also be introduced to the process of reproduction and growth in animals. The focus at this stage should be on questions that help pupils to recognise growth; they should not be expected to understand how reproduction occurs.*

In Year Three:

- Identify that animals, including humans, need the right types and amount of nutrition, and they cannot make their own food; they get their nutrition from what they eat
- Know how nutrients, water and oxygen are transported within animals and humans.
- Know about the importance of a nutritious, balanced diet.
- Identify that humans and some other animals have skeletons and muscles for support, protection and movement: Know about the skeletal and muscular system of a human.



**Year Three – Animals, Including Humans – Skeletons and Movement**

**National Curriculum Objectives:**

- Identify that animals, including humans, need the right types and amount of nutrition, and they cannot make their own food; they get their nutrition from what they eat.
- Know how nutrients, water and oxygen are transported within animals and humans.
- Know about the importance of a nutritious, balanced diet.
- Identify that humans and some other animals have skeletons and muscles for support, protection and movement: Know about the skeletal and muscular system of a human.

Non statutory: Pupils should continue to learn about the importance of nutrition and should be introduced to the main body parts associated with the skeleton and muscles, finding out how different parts of the body have special functions. Pupils might work scientifically by: identifying and grouping animals with and without skeletons and observing and comparing their movement; exploring ideas about what would happen if humans did not have skeletons. They might compare and contrast the diets of different animals (including their pets) and decide ways of grouping them according to what they eat. They might research different food groups and how they keep us healthy and design meals based on what they find out.

**Inspiring science key ideas:**

- **Identify that humans and some other animals have skeletons and muscles for support, protection and movement.**

**Working scientifically**

- *Identifying and grouping animals with and without skeletons.*
- *Observing and comparing their movement; exploring ideas about what would happen if humans did not have skeletons.*  
*Could possibly link to some PE and Health related aspect during this unit as no other health units are covered in the NC2014 Statutory Yr3 Curriculum.*
- *Researching how our bodies move and what our bodies can do and researching different exercises/sports/pastimes and how they can work different parts of our bodies and different muscle groups.*

**Draw on learning from – Year Three Health: Animals, including Humans, Nutrition.**

**See curriculum overview for sequence of learning**

Prior learning	Key Learning – What the pupils need to know	Vocabulary
<p>In Year Two:</p> <ul style="list-style-type: none"> <li>• Know that animals, including humans, have offspring which grow into adults</li> <li>• Know the basic stages in a life cycle for animals, including humans.</li> <li>• Find out 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> </ul>	<ul style="list-style-type: none"> <li>□ Identify animals (vertebrates) which have a skeleton which supports their body, aids movement &amp; protects vital organs (be able to name some of the vital organs).</li> <li>□ Identify animals without internal skeletons/backbones (invertebrates) and describe how they have adapted other ways to support themselves, move and protect their vital organs.</li> <li>□ Know how the skeletons of birds, mammals, fish, amphibians or reptiles are similar (backbone, ribs, skull, bones used for movement) and the differences in their skeletons.</li> <li>□ Know that muscles, which are attached to the skeleton, help animals move parts of their body.</li> <li>□ Explore how humans grow bigger as they reach maturity by making comparisons linked to body proportions and skeleton growth – e.g. do people with longer legs have longer arm spans? Is the size of our head related to our height, etc.</li> </ul> <p>Recognise that animals are alive; they <b>move</b>, feed, <b>grow</b>, use their senses and reproduce.</p> <p><i>Pupils should be introduced to the main body parts associated with the skeleton and muscles, finding out how different parts of the body have special functions.</i></p>	<p>Words relating to skeletons and muscles e.g. ribs, spine, skull, contract, relax, vertebrate</p> <p>Features of skeletons: movement, support, protection (organs)</p> <p>Words which have other meanings in other contexts e.g. relax</p> <p>Animal groups: vertebrates and invertebrates, insects, minibeasts, mammals, reptiles, fish, birds, amphibians</p>
<p>In Year Four:</p> <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>		



Year Four – Animals, Including Humans – Teeth and Digestion

National Curriculum Objectives:

- 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.

Non Statutory: Pupils should be introduced to the main body parts associated with the digestive system, for example, mouth, tongue, teeth, oesophagus, stomach and small and large intestine and explore questions that help them to understand their special functions. Pupils might work scientifically by: comparing the teeth of carnivores and herbivores, and suggesting reasons for differences; finding out what damages teeth and how to look after them. They might draw and discuss their ideas about the digestive system and compare them with models or images.

Inspiring science key ideas:

- 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 (this point can be taught during the year 4 unit linked to environment).

Working scientifically

- Comparing the teeth of carnivores and herbivores.
- Suggesting reasons for differences.
- Finding out what damages teeth and how to look after them.
- Drawing and discussing their ideas about the digestive system and comparing them with models or images.

Draw on learning from LKS2: Year 4 – Environment, Living things and their habitats

See curriculum overview for sequence of learning

Prior learning	Key Learning – What the pupils need to know	Vocabulary
<p>In Year Three:</p> <ul style="list-style-type: none"> <li>• Identify that animals, including humans, need the right types and amount of nutrition, and they cannot make their own food; they get their nutrition from what they eat.</li> <li>• Know how nutrients, water and oxygen are transported within animals and humans.</li> <li>• Know about the importance of a nutritious, balanced diet.</li> <li>• Identify that humans and some other animals have skeletons and muscles for support, protection and movement: Know about the skeletal and muscular system of a human.</li> </ul>	<p>Describe how teeth and gums have to be cared for in order to keep them healthy.</p> <p><i>Pupils should be introduced to the main body parts associated with the digestive system, for example, mouth, tongue, teeth, oesophagus, stomach and small and large intestine and explore questions that help them understand their special functions.</i></p>	<p>Herbivore, Carnivore, Digestive system, tongue, mouth, teeth, oesophagus, stomach, gall bladder, small intestine, pancreas, large intestine, liver, tooth, canine, incisor, molar, premolar, producer, consumer.</p>
<p>In Year Five:</p> <ul style="list-style-type: none"> <li>• Know the life cycle of different living things, e.g. Mammal, amphibian, insect bird.</li> <li>• Know the differences between different life cycles.</li> <li>• Know the process of reproduction in plants.</li> <li>• Know the process of reproduction in animals.</li> </ul>		



**Year Five – Animals, Including Humans – Human Life cycles**

**National Curriculum Objectives:**

- Describe the changes as humans develop to old age.
- Know the life cycle of different living things, e.g. Mammal, amphibian, insect bird.
- Know the differences between different life cycles.
- Know the process of reproduction in plants
- Know the process of reproduction in animals.

*Non statutory: Pupils should draw a timeline to indicate stages in the growth and development of humans. They should learn about the changes experienced in puberty. Pupils could work scientifically by researching the gestation periods of other animals and comparing them with humans; by finding out and recording the length and mass of a baby as it grows.*

Draw on learning from **the unit ‘ENVIRONMENT: Habitats and Life Cycles’ as these can be taught alongside one another.**

**Inspiring science key ideas:**

- Describe the changes as humans develop to old age.

**Working scientifically**

- *Researching the gestation periods other animals and comparing them with humans.*
- *Finding out and recording the length and mass of a baby as it grows.*

**See curriculum overview for sequence of learning**

<u>Prior learning</u>	<u>Key Learning – What the pupils need to know</u>	<u>Vocabulary</u>
<p>In Year Four:</p> <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>	<p>Animals are alive; they move, feed, grow, use their senses, <b>reproduce</b>, breathe/respire and excrete.</p>	<p>Changes, develop/development, grow/growth, baby, toddler, young, teenager, adult, old age, timeline, stages, puberty, gestation periods, compare</p>
<p>In Year Six:</p> <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> </ul>		



Year Six – Animals, Including Humans – Circulatory System and Exercise

National Curriculum Objectives:

- 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.

Non statutory: Pupils should build on their learning from years 3 and 4 about the main body parts and internal organs (skeletal, muscular and digestive system) to explore and answer questions that help them to understand how the circulatory system enables the body to function. Pupils should learn how to keep their bodies healthy and how their bodies might be damaged – including how some drugs and other substances can be harmful to the human body. Pupils might work scientifically by: exploring the work of scientists and scientific research about the relationship between diet, exercise, drugs, lifestyle and health.

Draw on learning from the Year Six - Animals, including Humans - Health and Nutrition Unit This unit on Diet and Lifestyle is taught alongside the 'Animals, Including Humans' Unit (Circulatory System and Exercise)

See curriculum overview for sequence of learning

Inspiring science key ideas:

- 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 exercise on the way their bodies function.
- Describe the ways in which nutrients and water are transported within animals, including humans.

Working scientifically

- Exploring the work of scientists and scientific research about the relationship between diet, exercise, drugs, lifestyle and health.

Additional suggestions beyond NC2014 to support pupils working scientifically and to provide an opportunity to use ICT to collect and interpret data

- Observing/measuring changes to breathing, heart beat and or pulse rates after exercise

Prior learning	Key Learning – What the pupils need to know	Vocabulary
<p>In Year Five:</p> <ul style="list-style-type: none"> <li>• Know the life cycle of different living things, e.g. Mammal, amphibian, insect bird</li> <li>• Know the differences between different life cycles.</li> <li>• Know the process of reproduction in plants.</li> <li>• Know the process of reproduction in animals.</li> </ul>	<ul style="list-style-type: none"> <li>□ The heart is a major organ and is made of muscle.</li> <li>□ The heart pumps blood around the body through vessels and this can be felt as a pulse.</li> <li>□ The heart pumps blood through the lungs in order to obtain a supply of oxygen</li> <li>□ Blood carries oxygen and other essential materials to different parts of the body.</li> <li>□ During exercise muscles need more oxygen so the heart beats faster and our breathing and pulse rates increase.</li> <li>□ Animals are alive; they move, feed, grow, use their senses, reproduce, breathe/respire and excrete.</li> </ul>	<p>Heart, heartbeat, pulse, pulse rate, muscle, blood vessel, blood, lung, oxygen, carbon dioxide, circulate, circulatory system, organ</p> <p>Diet, exercise, drugs, lifestyle, body function, harmful, healthy, damaged, nutrients, water, transported, substances</p>

In KS3:

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