

## Year 2

### Animals Including Humans

See Clare Fearon Science Book <https://clarefearon.files.wordpress.com/2021/03/whomightyoub2.pdf>

#### Background Knowledge

There are lots of imaginative ideas to deliver this topic. The children could consider that they are on a mission to Mars; what would they need to take with them? (Initial assessment). They could then go on to consider the healthy food they would take with them, how much exercise they would need and how to keep clean. Alternatively they could give a giant monster advice on how to look after its pet human. The children could keep a healthy me diary over a week including the healthy food they have eaten, their physical activity and the frequency of hand washing and teeth cleaning. For exercise, they could be part of a superhero training school where they are trying to become as healthy as they can over the week by taking part in a circuit of simple exercises each day. They could track their progress over the week. Hygiene can be investigated by adding glitter to hand gel to help the children visualise germs. When looking at human life cycles, ask parents to bring babies or toddlers (or photos of) in to observe.

#### Key learning.

Animals, including humans, have offspring which grow into adults. In humans and some animals, these offspring will be young, such as babies or kittens that grow into adults. In other animals such as chickens or insects, there may be eggs that hatch into young or other stages which grow into adults. The young of some animals don't look like their parents e.g. tadpoles.

All animals, including humans, have the basic needs of feeding, drinking and breathing that must be satisfied in order to survive. To grow into healthy adults, they also need the right amounts and types of food and exercise.

Good hygiene is important in preventing infections and illnesses.

#### Common misconceptions

- An animal's habitat is like it's home.
- All animals that live in the sea are fish.
- Breathing is respiration and vice versa.

**What children should already know (review before topic begins - linked to animals including humans Year 1)**

I can name a variety of animals including fish, amphibians, reptiles, birds and mammals.  
 I can classify and name animals by what they eat (carnivore, herbivore and omnivore).  
 I can sort animals into categories (including fish, amphibians, reptiles, birds and mammals).  
 I can name the parts of the human body I can see.  
 I can link the correct part of the human body to each sense.

National Curriculum Objectives	Children's objectives
<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> </ul>	<ul style="list-style-type: none"> <li>• I can explain the basic stages in a life cycle for animals including humans.</li> <li>• I can describe what animals and humans need to survive.</li> <li>• I can describe why exercise, a balanced diet and good hygiene are important for animals.</li> </ul>
<p><u>Working scientifically</u>                      asking simple questions and recognising that they can be answered in different ways                      gathering, interpreting and recording data to help in answering questions</p>	<p>I can ask simple questions using different question stems about how I can keep healthy.                      I can start to find ways to answer my question.                      I can record my results in simple bar charts, tally charts and pictograms.</p>

## Assessment

- If you were travelling to Mars, what would you need to take with you to survive?
- What do animals need to live?
- What do we need to eat to keep healthy?
- Why do we need to exercise?
- Sequence the life cycle and explain the stages to a friend.
- Sequence the human life cycle and explain the stages to a friend.

Working towards	Expected	Exceeding
<p>Working towards: I can start to ask simple questions about how I keep healthy. I can start to describe what animals and humans need to survive. I can investigate with support why exercise, a balanced diet and good hygiene is important to keep healthy . I can describe the stages of a human life cycle and those of other animals. I can start to record my findings about exercise in a tally chart and pictogram.</p>	<p>Expected: I can ask simple questions about how I keep healthy and start to find ways to answer my questions. I can describe what animals and humans need to survive. I can investigate why exercise, a balanced diet and good hygiene is important to keep healthy giving reasons why. I can explain the stages of a human life cycle and those of other animals. I can record my findings about exercise in a tally chart and pictogram.</p>	<p>Exceeding: I can ask simple questions about how I keep healthy using a range of question stems and start to find ways to answer my questions. I can describe what animals and humans need to survive stating why. I can confidently investigate why exercise, a balanced diet and good hygiene is important to keep healthy giving reasons why. I can explain the stages of a human life cycle and those of other animals explaining how they change. I can record my findings clearly about exercise in a tally chart and pictogram.</p>

Key Vocabulary	
<p>Vocabulary related to different life cycle stages studied and types of food.</p> <p><b>Breathing;</b> letting air in and out of your body.</p> <p><b>Child;</b> a young human.</p> <p><b>Disease;</b> an illness</p> <p><b>Exercise;</b> physical activity</p> <p><b>Germs;</b> a microorganism that causes disease.</p> <p><b>Growth;</b> increasing in size.</p>	<p><b>Heartbeat;</b> the sound your heart makes when it pumps the blood round your body.</p> <p><b>Hygiene;</b> ways of keeping healthy and stopping yourself becoming ill.</p> <p><b>Lifecycle;</b> Cycle of changes that happen from birth through to adulthood and reproduction eg frog/frogspawn/tadpoles/froglet/adult frog</p> <p><b>Offspring;</b> the young of an animal.</p> <p><b>Reproduction;</b> how young animals are made by the adults.</p> <p><b>Bar chart-</b> a way of representing information in columns.</p> <p><b>Tally chart;</b> a way of collecting information by making marks in fives to count.</p>

Character Opportunities	Some STEM careers linked to unit
<p>Curiosity and critical thinking - asking questions about the world around them</p> <p>Ambition and self motivation - consideration of STEM careers</p>	<p>GP</p> <p>Cardiologist (a doctor specialising in the heart and circulatory system)</p> <p>Exercise Physiologist (doctor specialising in fitness)</p> <p>Nurse (cares for patients)</p> <p>Nutritionist</p>

Activities in italics are alternative suggestions

Objectives	Working Scientifically	Lesson Objectives	Activities
<ul style="list-style-type: none"> <li>To identify and name common animals</li> </ul>	<ul style="list-style-type: none"> <li>Observe closely</li> <li>Identifying and classifying</li> </ul>	<ul style="list-style-type: none"> <li>To reinforce the idea that there is a range of common animals with similarities and differences</li> </ul>	<ul style="list-style-type: none"> <li>Identify and name animals which can be found in homes and gardens. include farm animals and wild animals</li> </ul> <p><b>Possible activities</b></p> <ul style="list-style-type: none"> <li>Working in pairs/3's Using pictures of common animals and pets group according to common features eg 4 legs, fur etc. Children decide and explain their own groupings</li> <li>Connect - prepare 'bingo' sheets with various animals. Read out features, children tick off animals that have that feature</li> </ul>
<ul style="list-style-type: none"> <li>To notice that animals including humans have offspring which grow into adults</li> </ul>	<ul style="list-style-type: none"> <li>Using observations and ideas to suggest answers to questions</li> <li>Gathering and recording data</li> </ul>	<ul style="list-style-type: none"> <li>To know the different stages in the human <b>lifecycle</b></li> <li>To know what '<b>growth</b>' means using themselves as practical examples</li> </ul>	<ul style="list-style-type: none"> <li>Order the pictures of <b>babies- child-teenager adult</b>, comparing and describe different stages</li> <li>Discuss and compare their own birth weights (<b>beware</b> for adopted children - info may not be available), shoe size, bring in baby clothes, photos of when they were younger etc</li> <li>Produce a class chart showing change in size (keep a class record of heights taken eg at the beginning of each term to show growth)</li> </ul>
<ul style="list-style-type: none"> <li>To notice that animals including humans have offspring which grow into adults</li> </ul>	<ul style="list-style-type: none"> <li>Using observations and ideas to suggest answers</li> </ul>	<ul style="list-style-type: none"> <li>To understand the growth cycle of mammals</li> <li>To recognise that the young of herbivores and carnivores have</li> </ul>	<ul style="list-style-type: none"> <li>Discuss the growth and needs of 2 mammals, a herbivore and a carnivore</li> <li>match up pictures of <b>adult</b> and <b>offspring</b> examples of different types of animal. Discuss how they are different.</li> </ul>

		different characteristics	
<ul style="list-style-type: none"> <li>To notice that animals including humans have offspring which grow into adults</li> </ul>	<ul style="list-style-type: none"> <li>Observing closely</li> </ul>	<ul style="list-style-type: none"> <li>To understand the lifecycle of a frog /and butterfly</li> </ul>	<ul style="list-style-type: none"> <li>Discuss what amphibians are and find out about a <b>frog lifecycle</b>. Label and record facts on a diagram/ <ul style="list-style-type: none"> <li>VAK - using foodstuffs or objects for a collage similar to the shapes of the different stages of butterfly <b>lifecycle</b> (see pintrest)</li> </ul> </li> <li>Make up a simple drama about lifecycles or flip book</li> </ul>
<ul style="list-style-type: none"> <li>To find out about and describe the basic needs of animals including humans for survival</li> </ul>	<ul style="list-style-type: none"> <li>Use simple questions to compare living things</li> </ul>	<ul style="list-style-type: none"> <li>To understand the different characteristics and needs of a variety of creatures</li> </ul>	<ul style="list-style-type: none"> <li><i>Compare and contrast features and needs of a range of creatures</i></li> <li><i>Children make up 'Top Trumps' style cards with different points for different animal features and needs</i></li> </ul>
<ul style="list-style-type: none"> <li>To find out about and describe the basic needs of Humans</li> </ul>	<ul style="list-style-type: none"> <li>Using observations and ideas to answer questions</li> </ul>	<ul style="list-style-type: none"> <li>To recognise that humans have needs to ensure that they stay alive</li> </ul>	<ul style="list-style-type: none"> <li>Imagine you are on a trip to Mars. What would you need to survive (water, air, food) <u>or</u> What instructions would you give a giant monster to look after a pet human</li> <li><i>Create lists of what is eaten over the day. What is healthy and what is less healthy</i> <ul style="list-style-type: none"> <li><i>Diamond ranking of the 'healthiness' of food</i></li> <li><i>Collect together different types of tomatoes and describe similarities and differences</i></li> </ul> </li> <li><i>Book (also on You tube??)'I will not ever never eat a tomato' Charlie and Lola story (Lauren Child)</i></li> </ul>

			<p>Talking points - True, False, not sure</p> <ul style="list-style-type: none"> <li>○ Children should eat vegetables even if they don't like them</li> <li>○ Children should always eat their vegetables because they are good for them</li> <li>○ If children eat vegetables they should be rewarded with sweets</li> <li>○ Children should choose what sweets they eat</li> </ul>
<ul style="list-style-type: none"> <li>● To find out about and describe the basic needs of Humans</li> </ul>	<ul style="list-style-type: none"> <li>● Using observations and ideas to answer questions</li> </ul>	<ul style="list-style-type: none"> <li>● To begin to understand which foods are Healthy and which are less healthy</li> </ul>	<p>Introduce healthy eating using eat well plate/ food pyramid. Design a healthy balanced meal.</p>
<ul style="list-style-type: none"> <li>● To find out about and describe the basic needs of Humans</li> </ul>	<ul style="list-style-type: none"> <li>● Using observations and ideas to answer questions</li> </ul>	<p>To understand the importance of <b>exercise</b></p>	<p>Consider the importance of <b>exercise</b> to the human body  <b>Tally chart/ bar chart/pictogram</b> favourite exercises  Investigate which types of exercise help which parts of the body  Investigate what happens to our <b>heartbeat</b> and <b>breathing</b> when we do exercise  Create a 'Superhero training plan'</p>
<ul style="list-style-type: none"> <li>● To describe the importance for humans of exercise eating the right amounts of food and <b>hygiene</b></li> </ul>	<p>finding out using different sources</p>	<ul style="list-style-type: none"> <li>● To understand the importance of <b>hygiene</b> -washing hands in reducing the impact of <b>germs and disease</b></li> <li>● To understand the importance of caring for teeth</li> </ul>	<ul style="list-style-type: none"> <li>● Show children how to wash hands properly</li> <li>● Write a set of instructions</li> <li>● Discuss implications of not cleaning teeth</li> <li>● <i>Visit from a dentist</i></li> </ul>

