

# Year 2: : Animals Including Humans Our Learning Leaves Curriculum – Science

	Required prior knowledge	Knowledge to be explicitly taught	How knowledge will be built upon
Substantive knowledge [NO1]	<p>Talk about how they have changed from being a baby (YR)</p> <p>Habitats are the places that living things live and different</p> <p>Parents and their young look similar and different to each other (YR)</p> <p>Names of animals and their young (e.g. calves and cow, lamb and sheep) (YR)</p> <p>Animals can be grouped into fish, amphibians, reptiles, birds and mammals (name common examples) (Y1)</p> <p>Temperature is a measure</p> <p>Plants are classed as living things because they grow, move, reproduce, and need nutrition</p> <p>Food chains (Year 2)</p>	<ul style="list-style-type: none"> <li>Animals, including humans, need food to survive</li> <li>Animals, including humans, need water and oxygen to survive</li> <li>Animals, including humans, the right temperature to survive</li> <li>Animals, including humans, reproduce. This means they have offspring that grow into adults</li> <li>As animals grow they get bigger.</li> <li>Some animals change during their life cycle as the mature (e.g. tadpole to frog)</li> <li>Humans need exercise to stay healthy</li> <li>Humans need to eat a healthy and balanced diet</li> <li>Humans need to practice hygiene to stay healthy</li> </ul>	<p>Life cycles, including metamorphosis (Y5)</p> <p>The main food groups are carbohydrates (starch and sugars), proteins, fats, dairy, fruit and vegetables (Yr3 )</p>
Disciplinary knowledge [NO2]	<p>Scientists conduct secondary research to learn from what other scientists have already learned (Y1)</p> <p>Scientists group objects or living things based on their properties (Y1 )</p> <p>Gather information from text/books/images (Y1 )</p> <p>Use a Carroll diagram to classify items based on properties.(Y1)</p>	<p>Gather information from images and/or text and group animals into those that change form as they grow and those that do not.</p> <p>Comparative test – how does heart rate change with exercise?</p>	<p>Using and drawing a classification key to classify organisms (Y4)</p> <p>Observe carefully and compare - Group/ classify (animals in different ways) - Record findings using simple scientific language and tables (e.g. animal groupings, food groups) - Report on findings in different ways (oral and written explanations and conclusions) - Use results to draw simple conclusions (e.g. biggest bones &amp; muscles) - Identify similarities and differences - Use evidence to answer questions (Y3)</p>

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**Culture and Diversity** - which helps pupils to develop enquiring minds about the wider world –

- Humans live in different environments around the world, eating different foods and this can be affected by climate and other environmental factors.
- Scientists' values and beliefs are influenced by the larger culture in which they live. Such personal views can, in turn, influence. Expose the children to human diversity related to race, culture, ability, gender and relationship preferences.
- Scientists' values and beliefs are influenced by the larger culture in which they live. Such personal views can, in turn, influence the questions they choose to pursue and how they investigate those questions.
- Scientific activities are social activities, so scientific culture is the product of humans' or particular groups of humans' activities. The thinking patterns, values, behavioural norms and traditions of science formed in its history reflect its cultural connotation.
- PSTT – 'A Scientist Just Like Me' - <https://psstt.org.uk/resources/curriculum-materials/ASJLM> Case studies of different scientists from diverse and under-represented backgrounds.
- British Science Week

**Environment and Community** - which helps to instil in our pupils a respect for our environment and for our local and wider communities

- Our environment can affect our ability to find healthy food and find space to exercise
- Living Eggs
- British Science Week
- Cheltenham Science Festival
- Outside speakers
- Fitness Fortnight
- Eco School
- School community reminders
- RESPECT characters reminders
- Children to appreciate our communities values, similarities and our unique qualities that make us special.

**Creative arts and physical development** - which helps our pupils to express themselves and excel as holistic learners –

- links to PE curriculum
- Scientists have to use their imagination to come up with explanations, theories and predictions.
- Scientists have to use their prior and new knowledge to create links

**Learning to learn** - which helps pupils to concentrate and focus and build resilience as learners –

- Pattern seeking, Identifying and classifying, Using secondary resources
- Respect characters model learning behaviours to develop resilience and perseverance.
- Respect characters model excellence in attitudes to learning.