



# SS John Fisher & Thomas More Catholic Primary School

A Voluntary Academy



Year Group: Year 4	Term: Summer 1 (Cycle B)	Topic: Animals including Humans (classification)
<p>National Curriculum Links: Pupils in Key Stage Two should be taught to:</p> <ul style="list-style-type: none"> <li>recognise that living things can be grouped in a variety of ways.</li> <li>explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment.</li> <li>recognise that environments can change and that this can sometimes pose dangers to living things.</li> </ul> <p>Working Scientifically</p> <ul style="list-style-type: none"> <li>ask relevant questions and using different types of scientific enquiries to answer them</li> <li>set up simple practical enquiries, comparative and fair tests</li> <li>make systematic and careful observations and, where appropriate, taking accurate measurements using standard units and a range of equipment</li> <li>gather, record, classify and present data in a variety of ways to help in answering questions</li> <li>record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables</li> <li>report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions</li> <li>use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions</li> <li>identify differences, similarities or changes related to simple scientific ideas and processes</li> <li>use straightforward scientific evidence to answer questions or to support their findings.</li> </ul>		
<p>Prior Learning</p>		<p>Future Learning</p>
<ul style="list-style-type: none"> <li>Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Y1 - Animals, including humans)</li> <li>Find out about and describe the basic needs of animals, including humans, for survival (water, food and air). (Y2 - Animals, including humans)</li> <li>Describe the importance for humans of exercise, eating the right amounts of different types of food, and hygiene. (Y2 - Animals, including humans)</li> </ul> <p>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. (Y3 - Animals, including humans)</p>		<ul style="list-style-type: none"> <li>Recognise the impact of diet, exercise, drugs and lifestyle on the way their bodies function. (Y6 - Animals, including humans)</li> <li>Describe the ways in which nutrients and water are transported within animals, including humans. (Y6 - Animals, including humans)</li> </ul>

## Common Misconceptions

Some children may think:

- **arrows in a food chains mean 'eats'**
  - the death of one of the parts of a food chain or web has no, or limited, consequences on the rest of the chain
  - there is always plenty of food for wild animals
  - your stomach is where your belly button is
  - food is digested only in the stomach
  - when you have a meal, your food goes down one tube and your drink down another
- the food you eat becomes "poo" and the drink becomes "wee".**

## Sustainable Development Goals & Catholic Social Teaching

Sustainable Development Global Goals would be perfect to fit with this unit of learning:

These Catholic Social Teaching strands would be perfect to fit with this unit of learning:

### Applied Write Opportunities

Write a non-chorological report on deforestation.

### Enrichment Opportunities

## Assessment Opportunities

- Can use diagrams or a model to describe the journey of food through the body explaining what happens in each part
- Can record the teeth in their mouth (make a dental record)
- Can explain the role of the different types of teeth
- Can explain how the teeth in animal skulls show they are carnivores, herbivores or omnivores
- Can create food chains based on research


## Key Vocabulary

Tier Two:

nutrients, herbivore, carnivore, omnivore, producer, predator, prey, food chain, environment, habitat, animals, fish, birds, mammals, weather, trees, plants, jungles, forests, rainforests, danger, conditions, pollution oxygen, carbon footprint, logging, suited, adapted,

Tier Three:

classify, micro-habitat, ecosystem, organisms, vertebrate, invertebrate, amphibians, reptiles, deforestation, slash and burn, exoskeleton,

Knowledge and Skills Objectives	Activity	Differentiation
<p><u>Lesson One</u> I can group animals according to whether they are fish, amphibians, reptiles, birds or mammals.</p> <p>Working scientifically:</p>	<div data-bbox="533 379 1563 592" style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p><b><u>Prior Assessment Task:</u></b></p> </div> <p><u>Starter Question:</u> Display images of various types of animals. Ask the question; <i>What am I? I am a fish, amphibian, reptile, bird or mammal?</i> Take feedback.</p> <p><u>Introduction:</u> Give children information and images about each animal group to read. Discuss the characteristics of each group, and explain any new vocabulary the children uses. Then recap and discuss criteria for fish, amphibians, reptiles, birds, mammal. <a href="https://www.youtube.com/watch?v=ITrRMiOB8g4">https://www.youtube.com/watch?v=ITrRMiOB8g4</a></p> <p><u>Activity 1:</u> Give children images of animals and ask them to group them according to the characteristics. Can the children explain how they knew the animals belonged to a specific group? *Take photographs of this for their book*</p> <div data-bbox="703 1155 1167 1390" style="text-align: center;">  </div>	<p><u>SEND:</u> Children to sort a few of each type of animal, and write a few sentences to explain <b>the animal's characteristics e.g.</b> a bird has wings and can fly.</p> <p><u>Year 3:</u> Children to draw 2 images of each animal group in their book (using drawing frame), and write a paragraph <b>to explain the animal's characteristics</b> using scientific vocabulary.</p> <p><u>Year 4:</u></p> <p><u>Challenge:</u> Children to answer the following questions in their book:</p> <ol style="list-style-type: none"> <li>1) Which animals were the most difficult to groups? Why?</li> <li>2) What is the difference between an amphibian and a reptile?</li> <li>3) What is the difference between a bird and a mammal?</li> <li>4) What do all of the groups except fish have in common?</li> <li>5) What do all the groups have in common?</li> <li>6) Can you think of any animals that do not belong in these</li> </ol>

	Children to write about the differences.	groups? What groups do they belong to?
Resources		Plenary
		Consolidate the five different groups and the differences between them. Share Question 6 from the challenge with the children - Can you think of any animals that do not belong in these groups? What groups do they belong to? Explore this question together.

Knowledge and Skills Objectives	Activity	Differentiation
<p><u>Lesson 2:</u> I can identify whether an animal is a vertebrate or invertebrate.</p> <p>Working Scientifically:</p>	<div data-bbox="539 746 1574 963" style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p><b><u>Prior Assessment Task:</u></b></p> </div> <p><u>Starter Question:</u> What is the difference between a vertebrate or an invertebrate?</p> <p><u>Introduction:</u> Explain to the children that they are learning the difference between two groups of animals; vertebrate and invertebrate.</p> <p>Give children information to read in their pairs to find out the difference. Take feedback.</p> <p>Discuss the difference; Vertebrate has a backbone (spine) and an invertebrate does <b>not have a backbone (spine). Consolidate what a 'spine' is and its primary function.</b></p>	<p><u>SEND:</u></p> <p><u>Year 3</u> Write a simple explanation of what an invertebrate is.</p> <p><u>Year 4</u> <i>Write a more detailed explanation using scientific language (e.g. endoskeleton or exoskeleton) and comparison vocabulary (e.g. however)</i></p> <p><u>Challenge:</u> To find out more about endoskeletons and exoskeletons.</p>

## Resources

Use BBC Bitesize What is a vertebrate and What is an invertebrate to consolidate understanding. <https://www.bbc.co.uk/bitesize/topics/zn22pv4/articles/zp6g7p3>

### Activity 1:

Give children a set of animal cards. Sort them into two groups.

**Discuss children's findings, and explore any misconceptions.**



### Activity 2:

Consolidate what a classification key is and why they are used;

*Scientists use classification keys to group unfamiliar organisms. They can look at the features of the organism and use the key to identify the organism that they have found. This can be useful when different organisms have a similar appearance.*

Give children a classification key and children to sort a set of invertebrate according to the questions.



Take a photograph of the above tasks for their science book.


## Plenary

Conclude what the difference is between a vertebrate and invertebrate. Play quiz on BBC Bitesize – children use wipe-boards to assess their understanding and as a post assessment for teacher.

Knowledge and Skills Objectives	Activity	Differentiation												
<p><u>Lesson Three</u> I can explore, identify and name a variety of living things in their local and wider environment.</p> <p>Working Scientifically:</p>	<div data-bbox="539 236 1570 451" style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p><b><u>Prior Assessment Task:</u></b></p> </div> <p><u>Starter Question:</u> What organisms live in our school environment?</p> <p><u>Introduction:</u> Today, the children will explore their local environment for organisms (animals and plants). Discuss rules for working scientifically with nature including the importance of wearing gloves.</p> <p>Use clipboards, children to make notes of what they find out or take photographs using cameras/ipads.</p>	<p><u>SEND:</u></p> <p><u>Year 3:</u> Children to create the eight images for their classification key.</p> <p><u>Year 4:</u> Children to create the eight images for their classification key.</p> <p><u>Challenge:</u> Use Living Things Classification Keys to solve by answering dichotomous questions independently.</p>												
<p>Resources</p>	<p>In the outside area, identify some micro-habitats: under a log, in a bush, base of a <b>tree etc... Predict what organisms (animals and plants) will live there and why.</b></p> <p><u>Activity 1:</u> Year 3: Work in small groups. Year 4: Work in pairs or independently. Draw 8 organisms they found in the local environment on a recording sheet.</p> <div data-bbox="770 1126 1240 1337" style="border: 1px dashed gray; width: 200px; height: 130px; margin: 10px auto;"> <table border="1" style="width: 100%; height: 100%; border-collapse: collapse;"> <tr><td style="width: 25%; height: 30px;"></td><td style="width: 25%; height: 30px;"></td><td style="width: 25%; height: 30px;"></td><td style="width: 25%; height: 30px;"></td></tr> <tr><td style="width: 25%; height: 30px;"></td><td style="width: 25%; height: 30px;"></td><td style="width: 25%; height: 30px;"></td><td style="width: 25%; height: 30px;"></td></tr> <tr><td style="width: 25%; height: 30px;"></td><td style="width: 25%; height: 30px;"></td><td style="width: 25%; height: 30px;"></td><td style="width: 25%; height: 30px;"></td></tr> </table> </div>													<p><b>Plenary</b></p> <p>Discuss which living organisms (animals and plants) live in the micro-habitats they found. Ask, why do certain organisms live in that particular micro-habitat? Example: the woodlouse lives in moist dark areas under objects (log, rock) as it provides shelter, protection <b>and moisture that it absorbs (it doesn't drink water).</b></p>

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Knowledge and Skills Objectives	Activity	Differentiation
<p><u>Lesson 4</u> I can create a classification key for organisms in the local environment.</p> <p><u>Working Scientifically:</u></p>	<div data-bbox="539 389 1570 603" style="border: 1px solid black; padding: 5px; margin-bottom: 10px;"> <p><b><u>Prior Assessment Task:</u></b></p> </div> <p><u>Starter Question:</u> What is a micro-habitat and which animal would live there and why?</p> <p><u>Introduction:</u> Consolidate what a classification key is. Discuss why we use classifications? Show two different classification formats. Which do they prefer? Explain why.</p> <p>Demonstrate how to create a classification key using pictures of animals, using post-it notes and large paper.</p> <p><u>Activity 1:</u> Year 3: Work in small groups. Year 4: Work in pairs or independently. Using the 8 organisms drawn in the previous lesson, construct a classification key (Year 3 - give them a leading question to get them started).</p>	<p><u>SEND:</u></p> <p><u>Year 3:</u> Use the 8 images to create a classification key in a pair or as a small group by repeatedly asking dichotomous questions (with exactly two answers) splitting the groups up until each group only has one member.</p> <p><u>Year 4:</u> Use their 8 images to create a classification key group by repeatedly asking dichotomous questions (with exactly two answers) splitting the groups up until each group only has one member.</p> <p><u>Challenge:</u> Use Living Things Classification Keys to solve by answering dichotomous questions independently.</p>
Resources		Plenary

		<p>Consolidate which living organisms (animals and plants) live in the micro-habitats they found. Children to watch the following clip to remind them of living things and their habitats.  <a href="https://www.bbc.co.uk/programmes/p0119dpr">https://www.bbc.co.uk/programmes/p0119dpr</a></p>
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Knowledge and Skills Objectives	Activity	Differentiation
<p><u>Lesson 5</u>            I can explain the reasons for deforestation and its negative effects.</p> <p><u>Working Scientifically:</u></p>	<div data-bbox="537 619 1568 837" style="border: 1px solid blue; padding: 5px;"> <p><b><u>Prior Assessment Task:</u></b></p> </div> <p><u>Starter Question:</u>            Why do we need trees?</p> <p><u>Introduction:</u>            Ask, what would happen if there were no trees in woodland / forest areas?            Discuss deforestation around the world and the impact on a larger scale. Watch video clip about deforestation.  <a href="https://www.twinkl.co.uk/teaching-wiki/deforestation">https://www.twinkl.co.uk/teaching-wiki/deforestation</a> Or  <a href="https://www.youtube.com/watch?v=1c-J6hcSKa8">https://www.youtube.com/watch?v=1c-J6hcSKa8</a></p> <p><u>Activity 1:</u>            Children to read information about deforestation.  <b>Use 'Walk &amp; Talk' activity to get children discussing key informati</b></p>	<p><u>SEND:</u></p> <p><u>Year 3 and Year 4:</u>            Children to create a non-chronological text about deforestation.</p> <p><u>Challenge:</u>            Children to find out more facts about <b>deforestation and create 'Did you know...' facts for the display.</b></p>
<p><b>Resources</b></p>		<p><b>Plenary</b></p>
	<p><u>Activity 1:</u>            Children to read information about deforestation.  <b>Use 'Walk &amp; Talk' activity to get children discussing key informati</b></p>	<p>How can we stop deforestation? What is being done to help already</p>





Activity 2:  
Consolidate what a non-chronological text is.  
Create a non-chronological text about deforestation.

Year 3/4
Read all carefully and complete
Write a non-chronological text
Write a non-chronological text
Write a non-chronological text
Write a non-chronological text
Write a non-chronological text
Write a non-chronological text
Write a non-chronological text

Knowledge and Skills Objectives	Activity	Differentiation
<p><u>Lesson 6</u> I can explain the impact humans are having on ecosystems, both positive and negative.</p> <p><u>Working Scientifically:</u></p>	<p><b><u>Prior Assessment Task:</u></b></p> <p><u>Starter Question:</u> How can we look after nature?</p> <p><u>Introduction:</u> Discuss the positive impact of nature reserves and ecologically planned parks, or garden ponds projects. Why do we have them/need them?</p>	<p><u>SEND:</u></p> <p><u>Year 3 and Year 4:</u> Children to create a poster on how we can help plants and nature.</p> <p><u>Challenge:</u> Explore the woodland trust website for kids. What can they find out?</p>
<p>Resources</p>	<p><u>Activity 1:</u> Watch videos to support understanding: <a href="https://www.worldlandtrust.org/get-involved/educational-resources/conservation-videos-for-schools/">https://www.worldlandtrust.org/get-involved/educational-resources/conservation-videos-for-schools/</a></p> <p><a href="https://www.bbc.co.uk/teach/class-clips-video/science-ks1-ks2-ivys-plant-workshop-how-can-we-protect-plants-and-nature/z4fgxyc">https://www.bbc.co.uk/teach/class-clips-video/science-ks1-ks2-ivys-plant-workshop-how-can-we-protect-plants-and-nature/z4fgxyc</a></p>	<p>Plenary</p> <p>Discuss how can we help more, now and the future.</p>

Explain what the positive impact of these places is having on an immediate scale and wider scale.

Create a mind map of ideas.



Activity 2:  
Complete mind map from the first lesson

