



SS John Fisher & Thomas More Catholic Primary School

A Voluntary Academy

"Journeying together with Jesus Christ, we learn to love and love to learn."

Medium Term Planning
Creative Learning Journey

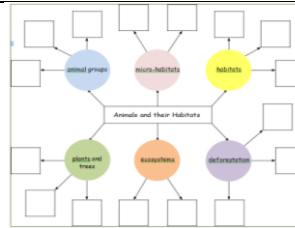


Year Group: 3&4	Topic: Science - Animals including Humans	Term: Summer 2
<p>National Curriculum Links: (Ref: NC 2014)</p> <ul style="list-style-type: none"> - recognise that living things can be grouped in a variety of ways. - explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. - recognise that environments can change and that this can sometimes pose dangers to living things. <p>Working Scientifically statutory requirements:</p> <ul style="list-style-type: none"> -ask relevant questions and using different types of scientific enquiries (Pattern seeking, research, observations over time, identifying & classifying, comparative and fair testing) to answer them. -set up simple practical enquiries, comparative and fair tests. -make systematic and careful observations and, where appropriate, taking accurate measurements using standard units, using a range of equipment, including thermometers and data loggers. -gather, record, classify and present data in a variety of ways to help in answering questions, whilst beginning to use simple scientific language. -record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. -report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions. -use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions. -identify differences, similarities or changes related to simple scientific ideas and processes. -using straightforward scientific evidence to answer questions or to support their findings. 		
Knowledge and Skills Objectives	Activity	Differentiation
<p>Week One I can group animals according to whether they are fish, amphibians, reptiles, birds or mammals.</p>	<p>Pre-Assessment: Create a mind map of this topic (see image below for example)</p>	<p>Year 3: Children to stick 2 images of each animal group in their book, and write a few sentences to explain the animal's characteristics.</p>

Working scientifically

-I can ask relevant questions and using different types of scientific enquiries to answer them.

-I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.



Starter Question:

Display images of various types of animals.

Ask the question: What am I? I am a fish, amphibian, reptile, bird or mammal? Take feedback.

Introduction:

Give children information and images about each animal group to read.

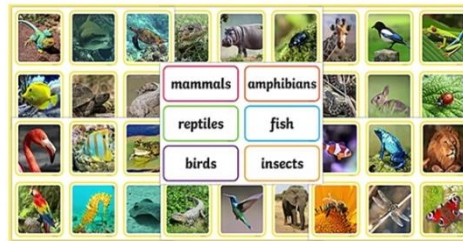
Discuss the characteristics of each group, and explain any new vocabulary the children uses. Then recap and discuss criteria for fish, amphibians, reptiles, birds, mammal.

<https://www.youtube.com/watch?v=ITrRMiQB8g4>

Task 1:

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



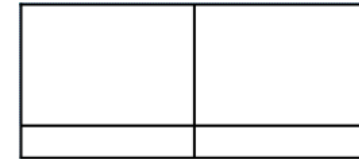
Plenary:

Consolidate the five different groups and the differences between them.

Year 4:

Children to draw 2 images of each animal group in their book (using drawing frame), and write a paragraph to explain the animal's characteristics using scientific vocabulary.

Amphibian




An amphibian is a cold blooded animal. They lay their eggs in water. Young amphibians start their lives living in water. As they grow into an adult they can go onto land but they must stay close to water.

Challenge:

Children to answer the following questions in their book:

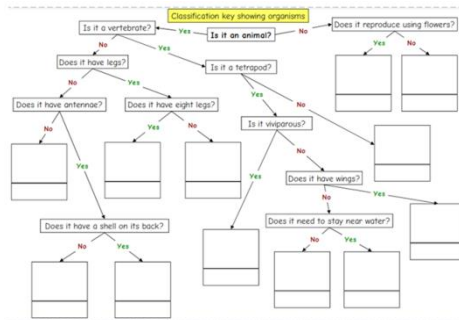
- 1) Which animals were the most difficult to groups? Why?
- 2) What is the difference between an amphibian and a reptile?
- 3) What is the difference between a bird and a mammal?
- 4) What do all of the groups except fish have in common?
- 5) What do all the groups have in common?
- 6) Can you think of any animals that do not belong in these groups? What groups do they belong too?

	<p>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 too? Explore this question together.</p>	
<p><u>Week Two</u> I can identify whether an animal is a vertebrate or invertebrate.</p> <p>I can use a classification key to identify a vertebrate.</p> <p><u>Working Scientifically:</u> -I can ask relevant questions and using different types of scientific enquiries to answer them. -I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables. -I can identify differences, similarities or changes related to simple scientific ideas and processes. -I can use straightforward scientific evidence to answer questions or to support their findings.</p>	<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 not have a backbone (spine). Consolidate what a 'spine' is and its primary function.</p> <p>Use BBC Bitesize What is a vertebrate and What is an invertebrate to consolidate understanding. https://www.bbc.co.uk/bitesize/topics/zn22pv4/articles/zp6q7p3</p> <p><u>Task 1</u> Give children a set of animal cards. Sort them into two groups. Discuss and explore children's findings, any misconceptions.</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>

Task 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.

Week Three

I can explore, identify and name a variety of living things in their local and wider environment.

Starter Question:

What organisms live in our school environment?

Introduction:

Today, the children will explore their local environment for

Year 3:

Children to create the eight images for their classification key.

Year 4:

Working Scientifically

- I can make systematic and careful observations taking accurate measurements using a range of equipment.
- I can gather, record, classify and present data in a variety of ways to help in answering questions, whilst beginning to use simple scientific language.
- I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.

organisms (animals and plants).
 Discuss rules for working scientifically with nature including the importance of wearing gloves.

Use clipboards, children to make notes of what they find out or take photographs using cameras/ipads.

In the outside area, identify some micro-habitats: under a log, in a bush, base of a tree etc... Predict what organisms (animals and plants) will live there and why.

Task 1:

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.



Plenary:

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 and moisture that it absorbs (it doesn't drink water).

Children to create the eight images for their classification key.

Challenge:

Use Living Things Classification Keys to solve by answering dichotomous questions independently.

Week Four

I can create a classification key for organisms in the local environment.

Working Scientifically

Starter Question:

What is a micro-habitat and which animal would live there and why?

Introduction:

Consolidate what a classification key is. Discuss why we use

Year 3:

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

<p>--I can ask relevant questions and using different types of scientific enquiries (classifying) to answer them.</p> <p>I can gather, record, classify and present data in a variety of ways to help in answering questions, whilst beginning to use simple scientific language.</p> <p>-I can record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts, and tables.</p>	<p>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>Task 1: Year 3: Work in small groups. Year 4: Work in pairs or independently.</p> <p>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>Plenary: 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. https://www.bbc.co.uk/programmes/p0119dpr</p>	<p>member.</p> <p>Year 4: 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>Challenge: Use Living Things Classification Keys to solve by answering dichotomous questions independently.</p>
<p>Week Five I can explain the reasons for deforestation and its negative effects.</p> <p>Working Scientifically -I can use scientific evidence to answer questions and to support their findings.</p> <p>-I can ask relevant questions and use different types of scientific enquiries to answer them.</p>	<p>Starter Question: Why do we need trees?</p> <p>Introduction: 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. https://www.twinkl.co.uk/teaching-wiki/deforestation Or https://www.youtube.com/watch?v=Ic-J6hcSKa8</p> <p>Task 1: Children to read information about deforestation. Use 'Walk & Talk' activity to get children discussing key information.</p>	<p>Year 3 and Year 4: Children to create a non-chronological text about deforestation.</p> <p>Challenge: Children to find out more facts about deforestation and create 'Did you know...' facts for the display.</p>



Task 2:

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

Topic Title
Brief introductory paragraph
Sub-heading and paragraph
Sub-heading and paragraph
Some information given in a fact box or as bullet points in a list
Sub-heading and paragraph
Possible use of a glossary at the end of the text

Plenary:

How can we stop deforestation? What is being done to help already?

Week Six

I can explain the impact humans are having on ecosystems, both positive and negative.

Starter Question:

How can we look after nature?

Introduction:

Discuss the positive impact of nature reserves and ecologically

Year 3 and Year 4:

Children to create a poster on how we can help plants and nature.

Challenge:

Working Scientifically

-I can use scientific evidence to answer questions and to support their findings.

-I can ask relevant questions and use different types of scientific enquiries to answer them.

planned parks, or garden ponds projects. Why do we have them/need them?

Task 1:

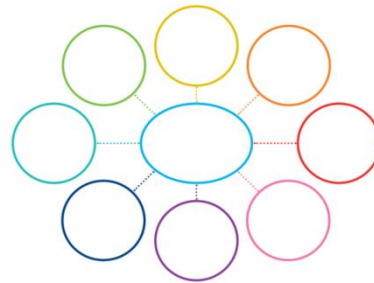
Watch videos to support understanding:

<https://www.worldlandtrust.org/get-involved/educational-resources/conservation-videos-for-schools/>

<https://www.bbc.co.uk/teach/class-clips-video/science-ks1-ks2-ivys-plant-workshop-how-can-we-protect-plants-and-nature/z4fqxyc>

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

Create a mind map of ideas.



Task 2:

Complete mind map from the first lesson

Plenary:

Discuss how can we help more, now and the future.

Explore the woodland trust website for kids. What can they find out?

Applied Write Opportunities:

Write a non-chronological report on deforestation.

Key Vocabulary

Tier 2: environment, habitat, micro-habitat, animals, fish, birds, mammals, weather, Autumn, Summer, Winter, Spring, trees, plants, jungles, forests, rainforests, danger

Tier 3: classify, ecosystem, organisms, vertebrate, invertebrate, amphibians, reptiles, conditions, provide, deforestation, pollution, slash and burn, oxygen, carbon footprint, logging, exoskeleton, suited, adapted, predator, prey