



SUBJECT MEDIUM TERM PLANNING - Science

Year Group: 2	TERM: Autumn 1	Theme: Living things and their habitats
<p>National Curriculum:</p> <ul style="list-style-type: none"> • explore and compare the differences between things that are living, dead, and things that have never been alive • identify that most living things live in habitats to which they are suited and describe how different habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other • identify and name a variety of plants and animals in their habitats, including micro-habitats • Describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, and identify and name different sources of food. 		
<p>Context: - Children will have knowledge of whether something is dead, living or never been alive. Children will also be able to recall different habitats and explain why that habitat is suitable for the animal.</p>	<p>Concepts: Habitats and food chains</p>	<p>Vocabulary: MRS NERG – movement, respiration, sensitivity, nutrition, excretion, reproduce, growth living, dead, never been alive, life processes, move, grow, feed, have offspring, young, babies, habitat microhabitat, Foodchains, producer, consumer, predator <i>Working scientifically – investigate Identifying, classifying and grouping, simple tests</i></p>
<p>Prior Knowledge:</p> <ul style="list-style-type: none"> • Identify and name a variety of common wild and garden plants, including deciduous and evergreen trees. (Y1 - Plants) 	<p>Future Knowledge:</p> <ul style="list-style-type: none"> • Recognise that living things can be grouped in a variety of ways. (Y4 - Living things and their habitats) 	

- Identify and describe the basic structure of a variety of common flowering plants, including trees. (Y1 - Plants)
- Identify and name a variety of common animals including fish, amphibians, reptiles, birds and mammals. (Y1 - Animals including humans)
- Identify and name a variety of common animals that are carnivores, herbivores and omnivores. (Y1 - Animals including humans)
- Describe and compare the structure of a variety of common animals (fish, amphibians, reptiles, birds and mammals, including pets). (Y1 – Animals, including humans)
- Observe changes across the four seasons. (Y1 - Seasonal changes)

- Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. (Y4 - Living things and their habitats)
 - Recognise that environments can change and that this can sometimes pose dangers to living things. (Y4 - Living things and their habitats)
- Construct and interpret a variety of food chains, identifying producers, predators and prey. (Y4 - Animals, including humans)

End points /by the end of this unit pupils will...

- Be able to identify the 7 life process
- Be able to explain the parts of a food chain and provide examples of a producer, consumer and predator
- Be able to give examples of different habitats and explain how animals have adapted to suit that habitat
- Be able to explain and give examples of micro habitats and what insects live there

Lesson Number1

Key learning:
Identify the 7 life characteristics and apply this knowledge to identify whether something is alive, dead or never been alive.

Concepts:
Living things and their habitats

Lesson structure: Introduction, direct teaching, activities, key questions

Concept map at the beginning of the topic. This will assess how much prior learning has been retained. What do the children already know about the topic?

Success Criteria:
This should what the children should be able to do by the end of the lesson

Suggested resources:
Flip chart

Different objects that are dead, living and never been alive

Introduce the 7 life process (MRS NERG)



Watch BBC bitesize video <https://www.bbc.co.uk/bitesize/topics/z6882hv/articles/zs73r82>

Success Criteria:
I know that all living things have 7 life processes.
I can identify something as living, dead or never been alive.
I can use the 7 life processes to explain how I know if something is living, dead or never been alive.

Show children different items and ask them if it is dead, living or never been alive. Model key sentences (I think it is ...because...)

Deepening - I can identify the odd one out and explain why.

Explore the classroom or photos and discuss whether the item is alive, dead or never been alive. Model MRS NERG

Working scientifically:
Identification and classifying

Independent task: Children draw a picture of items of things that are alive, dead or never been alive.

Deepening: Show children 3 pictures of different items – Which is the odd one out and why (Using MRS NERG) – Explorify has the pictures

Challenge: through questioning – how do you know?

Adaptive teaching for SEND: scribe, less pictures to group



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Vocabulary:

Dead, living, never been alive, life processes, move, grow, feed, have offspring, young, babies, reproduce

Lesson Number 2

Key learning:

Explain and identify a producer, consumer and predator in relation to a food chain.

Concepts:

Living things and their habitats

Lesson structure: Introduction, direct teaching, activities, key questions

Success Criteria:

This should what the children should be able to do by the end of the lesson

I can understand why animals need food.

I can understand how animals and plants get their food.

I can explain what is meant by a producer, consumer and top predator.

I can order living things in a food chain.

I can label the producer, consumer and predator.

Deepening: Use knowledge to discuss my point of view.

Working scientifically:

Identification and classifying



Suggested resources:

Flip chart

Examples of food chains

Enquiry: Can children create their own food chain

Children create their own food chains

Recap MRS NERG and the Key vocab of herbivore, carnivore and omnivore

Introduce what is meant by nutrition and why animals need food.

Introduce the concepts of a food chain

Watch BBC video on KS1 Science: Food chains

<https://www.bbc.co.uk/teach/class-clips-video/science-ks1-the-food-chain/zbr8d6f8~:text=In%20the%20food%20chain%2C%20it's,plants%20and%20insects%20or%20animals.>

Teach the different parts of the food chain and the key vocabulary.

Children to label the different parts of the food chains.

Independent task: **Children to create their own food chain and label with producer, consumer and predator.**

Deepening task: concept map of food chains. Use knowledge to create a discussion.



Vocabulary:

Foodchains, producer, consumer, preditor

Lesson Number 3

Key learning:
Identify different animals and plants that live in different habitats and why that habitat is suitable for them.

Concepts:
Living things and their habitats

Lesson structure: Introduction, direct teaching, activities, key questions

Odd one out – Show the children different habitats and ask children to so discuss. Show a wrong habitat.



Success Criteria:
This should what the children should be able to do by the end of the lesson

I understand what a habitat is.
I can identify different types of habitats.
I can match animals to the habitats that they are suited to.
I can consider what makes each animal suited to their habitat

Deepening: I can explain why I think animals would be suited to different habitats.

Working Scientifically:
Identifying and classifying



Suggested resources:

Flip chart

Different animals and habitats

Identify what a habitat is?

Can you see the snow leopard? Create a discussion about how habitats are suitable for the animals



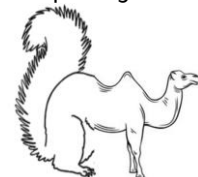
Show children different habitats and talk about the different features and animals that live there? Link back to previous learning on food chains

Discussions about how animals have adapted to suit the habitat

In groups children to have different animals and habitats so they can practise identifying the animal to the correct habitat?

Individual children to identify an animal and talk/draw or write about the habitat and how the animal has adapted

Deepening: 'Mash up' 2 different animals and ask children to discuss what it's habitat would be and why



Challenge:
Adaptive teaching for SEND:

Vocabulary:
 Habitat foodchains, suitability

Lesson Number 4

Key learning:
 Investigate what a micro-habitat is and how insects have adapted to suit that micro-habitat

Concepts:
 Living things and their habitats

Lesson structure: Introduction, direct teaching, activities, key questions

Recap what a habitat is and how animals have adapted to their surroundings and food chains.
 Discuss what a micro habitat is and where in school we would find micro habitats.

Success Criteria:
 This should what the children should be able to do by the end of the lesson
 I know the definition of a microhabitat.
 Make and record observations from exploring microhabitats in the playground / forest school.
 Understand that there are a varied amount of microhabitats with different features and conditions.
 Understand that microhabitats and habitats

Suggested resources:
 Flip chart
 Magnifying glasses
 Clipboards
 Camera

Introduce investigation: Children to go outside or forest school and identify different micro habitats.

Investigating micro-habitats


★ Micro habitat, damp, moist, protected, small, shady, sunny, cool, hot, dry, warm, sheltered ★

Where was the micro-habitat?	What was living there?	What was the habitat like? (5 adjectives)	Sketch a picture of the microhabitat

Children to complete a table to record their findings.

Children then to discuss their findings.

Challenge:
Adaptive teaching for SEND:

<p>provide the basic needs for different kinds of living things.</p> <p>Working Scientifically: Observing closely using simple equipment</p> 		
<p>Vocabulary:</p> <p>Habitat, micro habitat foodchains suitability</p>		

<p style="text-align: center;">Lesson Number 5</p>		
<p>Key learning: Investigation: Create own animal and use scientific knowledge to describe it's habitat</p>	<p>Concepts: Living things and their habitats</p>	<p>Lesson structure: Introduction, direct teaching, activities, key questions</p> <p>Recap a habitat and how animals have adapted. Give examples of a polar bear and a camel. Link with food chains.</p> <p>Children create their own animals and draw a picture of the habitat it will live in.</p>
<p>Success Criteria: This should what the children should be able to do by the end of the lesson I understand what a habitat is. I can identify different types of habitats. I can match animals and their features with their correct habitat.</p>	<p>Suggested resources: flipchart</p>	<p>Children to explain why have they picked that habitat and why it is suitable for them to survive</p> <p>Challenge: through questioning – why have you selected that? Adaptive teaching for SEND: suggestions shared talk, partner work</p>

I can create my own animal with features suited to a particular habitat.

Deepening - I can explain why my animal is suited to its habitat.

Working Scientifically:
Use their observations and ideas to suggest answers to questions.



Vocabulary: