



SUBJECT MEDIUM TERM PLANNING - SCIENCE

Year Group: 2

Term: Spring 1

Theme: Flippers, Fangs and Fins

National Curriculum:

Pupils will be taught to:

- 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- Ocean focus
- identify and name a variety of plants and animals in their habitats, including microhabitats - Ocean focus
- 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 - Ocean focus

Context: -

Children will be building and applying on their previous knowledge of land habitats and foodchains from the Autumn term as well as their Geography knowledge of locating and naming the 5 Oceans of the world to explore habitats and foodchains in an Ocean environment. This will enable children to advance their learning later when discussing how changes in the environment can change our habitats and that animals need to adapt to survive.

Concepts: Living things and their habitat

Vocabulary:

Key Vocabulary	
habitat	A habitat is the natural place something lives. A habitat provides living things with everything they need to survive such as food, shelter and water.

Key Vocabulary	
Food chains	Transfer of energy from one living thing to another.
Producer	Has the ability to make its own food for example a plant
Consumer	A living thing that consumes (eats) another living thing for energy.



Working scientifically: identifying and classifying

<p>Prior Knowledge:</p> <ul style="list-style-type: none"> • 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) 	<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) • 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)
<p>End points /by the end of this unit pupils will...</p> <ul style="list-style-type: none"> • Children will be able to identify and name different habitats in the oceans such as coral reef, the deep sea and the polar sea. • Children will be able to say why an animal is suited for that habitat, for example a polar bear has thick fur so it can keep warm in the polar sea. • Children will be able to provide an example of a food chain under the sea. 	<p>Crucial Knowledge</p> <ul style="list-style-type: none"> • Children will need to know that an animal needs food, water and shelter to survive • Children will need to know that a habitat is a home where animals live. • Children will need to know that an ocean is a large body of water on Earth. • Children will need to know that an animal eats to get energy. This creates a foodchain which starts with a producer (that makes it's own food), a consumer eats a producer and the end of the food chain is a predator.

Lesson Number 1

Key learning:

identify and name different animals and their habitats

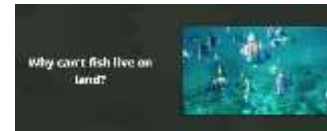
Context: Under the sea

Concepts:

Living things and their habitat

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

Cartoon concept (*Assessment tool*) – Generates scientific conversations about habitats.



Success Criteria:

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

I can identify some different Ocean habitats.

I can classify the animals that live in these habitats.

I can explain how an animal is suited to its habitat.

Deepening - I can create my own underwater animal suited to a particular underwater habitat.

Working scientifically: identifying and classifying



Suggested resources:

Flip chart

Pictures of sea habitats and their animals

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?

Recap the 7 life processes of an animal (MRS NERG) – Assessment tool, can they children remember the 7 life process? Intervention if needed.

Recap what a habitat is, can children provide any examples of land habitats? (woodland, forest, coastal)

Recap 5 oceans and their location from Geography lesson (Ocean song used in Geography <https://www.youtube.com/watch?v=X6BE4VcYngQ>)

Match the sea habitats with the animals – generate conversations.

Submarine time – Teach children about the Coral reef, the deep seas, polar sea (knowledge to be taught: what is the climate? What would you find there? What type of animals live there? Why do they live there?)

Children record knowledge

Deepening: Can the children create their own underwater animal and a under the sea habitat. Explain why it is suited to that habitat (stimulate conversations about foodchains and being camouflaged)

Challenge: Through conversation and explanation of why they have chosen the habitat they have.

Adaptive teaching for SEND: visuals of life processes (Knowledge organiser), pre learning of key vocabulary, verbal support, writing frames for explanation, video explanation and record on SeeSaw

Vocabulary:

habitat ocean coral reef deep seas polar seas

Lesson Number 2

Key learning:

describe how animals obtain their food from plants and other animals.

Context: Under the Sea

Concepts:

Living things and their habitat

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

Recap the 7 life processes of an animal (MRS NERG)- Children to explain each process. Assessment tool, intervention if needed.

Recap sources of energy (food)

Recap the definitions of herbivore (eats plants), carnivore (eats meat) and omnivore (eats both plants and meat)

Success Criteria:

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

I can understand how animals and plants get food.

I can recall what a food chain is.

I can create a food chain based on underwater plants and animals.

I can label the producer, consumer and top predator.

Deepening: I can create a video to explain what a food chain is.

Working Scientifically:

Identifying, classifying and grouping



Suggested resources:

Flipchart

Papercups

Pictures of under the water food chains

Felt tips

Watch food chain video on BBC bitesize <https://www.bbc.co.uk/bitesize/articles/z3c2xnb>

Children to order the underwater animals to create a food chain. Label the parts producer and consumer. Provide more examples if needed to secure the knowledge of what a foodchain is.

Children then create own food chain using the cups to demonstrate an underwater foodchain.



Deepening: Can they become the teacher and create a video to explain what a food chain is. This is to be recorded on Seesaw.

Challenge: Further extend the foodchain, discuss why they eat that animal and how th energy transfers from 1 animal to another

Adaptive teaching for SEND: visuals, word mats, simlify the foodchain to 3 animals, pre learning,

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Vocabulary:
 Foodchains, producer, consumer, predator herbivore, carnivore, omnivore

Day at The Deep, Hull
Workshop: Caring for our oceans.

<p>Key learning: To be able to identify foodchains To be able to see real life under water animals To be able to see under water animal's habitats To identify the impact of everyday materials in our foodchains.</p>	<p>Concepts: Living things and their habitats</p>	<p>Lesson structure: Introduction, direct teaching, activities, key questions</p> <p>At The Deep children will attend a workshop on keeping our oceans clean. This will link with our underwater habitats and foodchains. Children will gain knowledge on foodchains and the impact that plastic has on the foodchains Children will also see real under the water animals and read about their habitats.</p> <p>Caring for our Oceans workshop objectives:</p> <ul style="list-style-type: none"> • Name and locate the seven continents and five oceans • Identify and name a variety of everyday materials and which can break down. • Construct and understand the impact of plastics within our food chain. • Record information using tally charts. <p>Children will then complete the concept map to identify the knowledge they have learnt.</p> <p>Challenge: Through discussions and explanations. Adaptive teaching for SEND: pre learning of what they may see, recap key knowledge and vocabulary/</p>
<p>Success Criteria: This should what the children should be able to do by the end of the lesson</p>	<p>Suggested resources: Ipad for photos</p>	

Vocabulary:

