

**Pioneer Federation**  
**Medium term plan**  
**lKS2- Cycle 2, Term 5**  
**Science**



<b>Subject:</b> Science	
<b>Key Concept/ Theme:</b> living things and their habitats	
Prior Learning links: Year 2: 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.	
<b>Vocabulary:</b> Habitat, micro habitat Pond, meadow, log pile, woodland, river, lake, beach, cliff Organism – plant, animal Trees deciduous and evergreen Wild flowering plants Garden plants Parts of plants Invertebrates Pond animals	
Use local environments including ponds and forest school areas.	
1.	<b>Deeper learning question for the term: Why do we need to classify living things?</b> <b>Prior learning reconnection (year group, cycle &amp; term):</b> Year 2 cycle 2 t5 <b>Enquiry skill:</b> classification and grouping <b>LO:</b> Let's learn to classify groups of animals. <b>Activity:</b> Reconnection to previous learning in lower year groups.

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	<p><b>Classifying – How can we classify different animals?</b> Place hoops on the playground. In each one place a label of an animal group. You could begin with just two hoops; invertebrates and vertebrates. You could then progress to more hoops: fish, mammals, birds, amphibians, reptiles and invertebrates. Provide each group of children with a set of animal pictures, Call out a category and then the children have to place in that hoop an example of that group. Discuss the characteristics of each of the groups.</p> <p>Go outside and look at the different animals and living things they can find in the outside area of the school. When they find them, they can explain where they found them and what makes it a suitable environment for them.</p> <p><b>Future learning links:</b> Links when outside in forest school, future topics in uks2 about further classification and life cycles.</p>
2.	<p><b>Deeper learning question:</b> Can you use the leaves to identify the name of the tree?</p> <p><b>Reconnection:</b> Why do we sort and group? Give examples from last week using photographs of their work.</p> <p><b>LO:</b> Let's learn to group and classify plants and trees.</p> <p><b>Enquiry skill:</b> Questioning and classification</p> <p><b>Activity:</b> Go on a plant and tree hunt using a key to identify the trees and plants before starting the task.</p> <p>Task: Grouping and classifying trees and plants;</p> <ol style="list-style-type: none"><li>1. Deciduous and evergreen trees</li><li>2. Flowering plants (including grasses) and non-flowering plants (ferns and mosses)</li></ol> <p>See page 13 of Kent planning for more information and links to resources/websites.</p>
3	<p><b>Deeper learning question:</b></p> <p><b>Reconnection:</b> Identification of plants and trees to reinforce work from ks1 and how to sort.</p> <p><b>LO:</b> Let's learn to use a classification key.</p> <p><b>Enquiry skill:</b> Questioning and classification</p> <p><b>Activity:</b> Using and creating classification keys. Link to Carl Linnaeus. Activity create classification key for trees and land invertebrates. Children to compare which one they found more difficult and why?</p>
4	<p><b>Deeper learning question:</b> How does a change in the environment affect the things that live there?</p> <p><b>Reconnection:</b> How do you use a classification key?</p> <p><b>LO:</b> Let's learn how an environment change can affect living things.</p> <p><b>Enquiry skill:</b> So what?</p> <p><b>Activity:</b> Take children outside to look again at particular habitats and micro habitats. Explain to the children that these habitats exist as part of a larger environment. Explain to them that you will give them a made-up piece of news and they have to think what might happen next.</p> <ol style="list-style-type: none"><li>1. The factory in the next town has started making something new. As a result, dark smoke is often seen coming out their large chimneys.</li><li>2. A new road has been built next to the wildlife area. This road is very busy.</li></ol>

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	<p>3. An all-weather sports pitch has been built next to the wildlife area. The pitch has large floodlights.</p> <p>4. A tall building has been built next to the wildlife area.</p> <p>Provide the children with a set of picture of animals and plants that can be found in your wildlife area. After each 'new bulletin', ask them to discuss in their groups which of the organisms have been affected; some might have a better chance of survival, whereas for others there chances might have become worse. Challenge the children to design a plan for an even better wildlife area.</p> <p>The children could draw the nature area, showing where improvements could be made. They could also include a code of conduct for uses of the wildlife area; e.g. no littering, allow the meadow to grow through spring and summer, clean the bird's water dish, etc.</p>
5	<p><b>Deeper learning question:</b> What changes have affected environments throughout the world?</p> <p><b>Reconnection:</b> how does a change in the environment change the environment for living things?</p> <p><b>LO:</b> Let's learn about environmental changes and the impact around the world.</p> <p><b>Enquiry skill:</b> So what?</p> <p><b>Activity:</b> Children to find out more about how environments are changing and have changed throughout the world. Remind them that there are often positive benefits as well as the negative results. See Kent planning Pg 17-18 for links/idea</p> <p>The children will need to explain each time: what the environment looks like now, how it has changed, and what impact it has on particular organisms that live there (or lived there).</p>
6	<p><b>Science quiz/presenting their understanding from last week.</b></p>
<p><b><u>End points:</u></b></p> <p>Understand, group and classify living things using scientific vocabulary to group these.</p> <p>To ask questions, group and classify trees, flowering plants and non-flowering plants.</p> <p>Use classification keys to group identify and name living things in their local environment- habitats and micro habitats.</p> <p>Understand that environments can change and know the positive and negative effects of these on living things (human impact) locally and worldwide.</p>	