

## Medium Term Plan: Supporting Implementation of LTP/Progression Grid

<p>Subject: Science                      Year: LKS2 Year 4 – Living things and their habitats NC/PoS:</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>Prior Learning (what pupils already know and can do)</p> <p>Know that living things all use the following processes: movement, respiration, sensitivity, growth, reproduction, excretion and nutrition. Name a variety of common wild and garden plants, including deciduous and evergreen trees. Name a variety of common animals including fish, amphibians, reptiles, birds and mammals. Describe and compare the structure of a variety of common animals: fish – have a backbone, gills and fins; amphibians – have moist, skin that absorbs water and oxygen; reptiles – have tough scales and lungs for breathing air; birds- light skeletal system and muscles to help it fly; mammals- have hair or fur, females produce milk for their young. Name a variety of plants and animals in their habitats.</p>
<p>End Goals (what pupils MUST know and remember)</p> <ul style="list-style-type: none"><li>• Know examples of how living things can be grouped – invertebrates (no backbone) vertebrates (have a backbone) and plants can be classified into flowering and non-flowering plants</li><li>• Know how to use a classification key to help group, identify and name a variety of living things – e.g. Can it fly, does it crawl, does it belong in...</li><li>• Know how to identify invertebrates (annelids, sponges, echinoderms, insects, molluscs, crustaceans, arachnids) and vertebrates (amphibians, birds, fish, mammals, and reptiles)</li><li>• Know how environments can change and how it can potentially pose a danger to living things -global warming, litter, oil spill, chemical pollution, deforestation, and land development</li><li>• Know environments can change and have a positive effect – nature reserves, parks and gardens, community gardens and ponds</li></ul>
<p>Key Vocabulary: vertebrate, invertebrate, backbone, molluscs, annelids, arachnids, crustaceans, echinoderms and insects, classification key, antennae, segmented body, woodlouse, centipede, beetle, flowering, non-flowering, algae, mosses, ferns and coniferous trees, grasses, shrubs, cereals and deciduous trees, negative, positive, global warming, litter, oil spill, chemical pollution, deforestation, land development, nature reserves, parks and gardens, community gardens, ponds</p>
<p>Session 1: Recap session</p> <p>Revisit living things all use the following processes: movement, respiration, sensitivity, growth, reproduction, excretion and nutrition.</p> <p>Revisit: names of common wildflowers – dandelion, forget-me-not, cornflower; garden flowers – rose, fuchsia, geranium; deciduous trees – ash, oak, beech, silver birch, alder; evergreen trees pine, spruce, cedar</p> <p>Revisit comparing the structure of a variety of common animals: fish – have a backbone, gills and fins; amphibians – have moist, skin that absorbs water and oxygen; reptiles – have tough scales and lungs for breathing air; birds- light skeletal system and muscles to help it fly; mammals- have hair or fur, females produce milk for their young.</p> <p>Revisit plants and animals in their habitats.</p> <p>Vocabulary:</p>

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Session 2: Recap: Name and identify common wildflowers, garden flowers and trees from session 1.

Children learn that vertebrates have a backbone and include fish, amphibians, reptiles, birds and mammals. Invertebrates include snails and slugs (molluscs), worms (annelids), spiders (arachnids), crustaceans, echinoderms and insects.

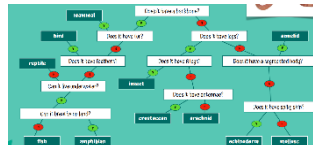
Suggested resources:

<https://www.youtube.com/watch?v=bsjP3940BHA> invertebrates from 4:18

<https://www.bbc.co.uk/bitesize/topics/z484382/articles/z8mbqhv> what is an invertebrate?

<https://www.bbc.co.uk/bitesize/topics/z484382/articles/zp6q7p3> what is a vertebrate?

Children sort photographs using a classification key



Vocabulary: vertebrate, invertebrate, backbone, molluscs, annelids, arachnids, crustaceans, echinoderms, sponges and insects, classification key

Session 3: Recap: What are the vertebrate groups? Name the invertebrate groups.

Children learn to use a classification key to identify animals in their local environment.

Suggested resources:

Use 'pooters' to collect any mini-beasts, place cream sheet under bush and gently shake, use magnifying glasses

Children produce their own classification key to sort the animals they found after modelling from teacher.

Vocabulary: antennae, segmented body, woodlouse, centipede, beetle

Session 4: Recap: what animals were found in the local environment?

Children learn plants can be classified into flowering and non-flowering plants. Flowering plants include grasses, shrubs, cereals and deciduous trees. Non-flowering plants can be classified into algae, mosses, ferns and coniferous trees.

Suggested resources:

<https://www.youtube.com/watch?v=cgVlrtGnG6s> classifying and grouping plants

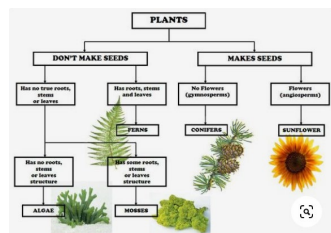
<https://www.dkfindout.com/uk/animals-and-nature/plants/flowering-plants/>

<https://www.woodlandtrust.org.uk/trees-woods-and-wildlife/plants/grasses-and-sedges/>

<https://www.dkfindout.com/uk/animals-and-nature/plants/non-flowering-plants/>

<https://www.woodlandtrust.org.uk/trees-woods-and-wildlife/plants/ferns/>

Children sort photographs using a classification key



Vocabulary: flowering, non-flowering, algae, mosses, ferns and coniferous trees, grasses, shrubs, cereals and deciduous trees

Session 5: Recap: how might we classify plants? Name types of flowering plants. Name types of non-flowering plants.

Children learn to use a classification key to identify plants in their local environment.

Suggested resources:

Children produce their own classification key to sort the plants they found after modelling from teacher.

Vocabulary: leaves, flowers (plants in local environment – white clover, nettles, grasses, ivy, dog rose)

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Session 6: Recap: what plants are there in the local environment?

Children learn environments can change and potentially pose a danger to living things - global warming, litter, oil spill, chemical pollution, deforestation and land development.

Environments can change and have a positive effect – nature reserves, parks and gardens, community gardens and ponds

Use ypte.org.uk Living things and their habitats for images

Vocabulary: negative, positive, global warming, litter, oil spill, chemical pollution, deforestation, land development, nature reserves, parks and gardens, community gardens, ponds

Link to career: environmentalist, vet,

[https://pstt.org.uk/application/files/2416/2851/6687/Veterinary\\_surgeon -  
\\_Dr\\_Kelly\\_Blacklock.pdf](https://pstt.org.uk/application/files/2416/2851/6687/Veterinary_surgeon_-_Dr_Kelly_Blacklock.pdf)

[https://pstt.org.uk/application/files/7716/4942/8554/Biologist - Robyn Grant v2.pdf](https://pstt.org.uk/application/files/7716/4942/8554/Biologist_-_Robyn_Grant_v2.pdf)

Scientists who have helped develop understanding in this field: Carl Linnaeus