



The Canons CE Primary School



Year 4 – Living Things and Their Habitats

Prior Learning	In Year 4	Future Learning
In Year 1 children will be taught to: - compare flowers and plants to identify similarities and differences (<i>plants</i>) - identify and name a variety of common wild and garden plants and trees, including those classified as deciduous and evergreen (<i>plants</i>) - name certain fish, amphibians, reptiles, birds and mammals (<i>animals including humans</i>) - describe the similarities and differences between fish, amphibians, reptiles, birds and mammals. (<i>Animals, including humans</i>) In Year 2 children will be taught to: - identify and name a variety of plants and animals in their habitats, including microhabitats.	In Year 4 children will be taught to: - research and describe the negative human effects on an environment such as dropping litter and pollution - research and describe the positive human effects on an environment such as creating nature reserves - understand the impact humans have on their local environment - recognise that environments change over time - use keys to identify living things in their local environment - group plants into categories such as flowering plants and non-flowering plants - group animals into vertebrates and invertebrates. Key Vocabulary classification, classification keys, environment, habitat, human impact, positive, negative, migrate, hibernate	In Year 5 children will be taught to: - compare the life cycles of plants in their local environment to different habitats around the world (such as in the rainforest or in the Arctic) - describe the similarities and differences between the life cycles of different animals to include mammals, amphibians, insects and birds - describe the similarities and differences between the life cycles of different plants. In Year 6 children will be taught to: - describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals - give reasons for classifying plants and animals based on specific characteristics.
Famous Scientists	Common Misconceptions	Possible Evidence to be Secure
- Jaques Cousteau – marine biology - Cindy Looy – environmental change and extinction - Carl Linnaeus (1707 – 1778) – developed a method for classifying all living things on the planet	Some children may think: - the death of one of the parts of a food chain or web has no or limited consequences on the rest of the chain - there is always plenty of food for wild animals - animals are only land-living creatures - animals and plants can adapt to their habitats, however they change - all changes to habitats are negative.	Children can: - keep a careful record of living things found in different habitats throughout the year (diagrams, tally charts etc.) - use classification keys to identify unknown plants and animals - present their learning about changes to the environment in different ways e.g. campaign video, persuasive letter.



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Working Scientifically

National Curriculum Statutory Requirements

1. Ask relevant questions and use different types of scientific enquiries to answer them.
2. Set up simple practical enquiries, comparative and fair tests.
3. Make systematic and careful observations and, where appropriate, take accurate measurements using standard units, using a range of equipment, including thermometers and data loggers.
4. Gather, record, classify and present data in a variety of ways to help in answering questions.
5. Record findings using simple scientific language, drawings, labelled diagrams, keys, bar charts and tables.
6. Report on findings from enquiries, including oral and written explanations, displays or presentations of results and conclusions.
7. Use results to draw simple conclusions, make predictions for new values, suggest improvements and raise further questions.
8. Identify differences, similarities or changes related to simple scientific ideas and processes.
9. Use straightforward scientific evidence to answer questions or to support their findings.

Highlighted = main focus during this topic

Teaching Ideas – Different Types of Scientific Enquiry

Comparative and Fair Testing	Identifying and Classifying	Observation Over Time	Pattern Seeking	Research
How does the average temperature of pond water change in each season? Does the amount of light affect how many woodlice move around?	Can we use the classification keys to identify the animals (that we caught pond dipping)?	How does the variety of invertebrate on the school field change over the year?	How has the use of insecticides affected bee population?	Why are people cutting down the rainforests and what effect does that have?

Teaching Ideas – How Pupils Could Work Scientifically

Teaching Ideas – Possible Evidence to be Secure

(Bracketed Number = National Curriculum Statutory Requirement Link)

- Observe plants and animals in different habitats throughout the year. (3)
- Compare and contrast the living things observed. (7, 8)
- Use classification keys to name unknown living things. (4)
- Classify living things found in different habitats based on their features. (4)
- Create a simple identification key based on observable features. (5)
- Use fieldwork to explore human impact on the local environment e.g. litter, tree planting. (7)
- Use secondary sources to find out about how environments may naturally change. (9)
- Use secondary sources to find out about human impact, both positive and negative, on environments. (9)

Children can:

- keep a careful record of living things found in different habitats throughout the year (diagrams, tally charts etc.) (5)
- use classification keys to identify unknown plants and animals (5)
- present their learning about changes to the environment in different ways e.g. campaign video, persuasive letter. (6)