



Subject: Science
 Year group: 6
 Term: Autumn
 Unit name: Living things and their habitat

Prior Knowledge -
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). Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird. (Y5 - Living things and their habitats). Describe the life process of reproduction in some plants and animals. (Y5 - Living things and their habitats)

Scientific enquiry	
Classifying	Classify animals according to Carl Linnaeus' system. Classify plants into flowering, mosses, ferns and conifers, based on specific characteristics. Create a branching database/dichotomous key to classify a set of living things.
Observing over time	Not relevant
Pattern seeking	Not relevant
Comparative/fair testing	Not relevant
Researching	Research the characteristics of a vertebrate/invertebrate group. (Children present what they've learned in different ways: create a model, write a song, write a story, create a PPT, etc.) Research the characteristics of flowering plants, mosses, ferns and conifers. Research the difference between bacteria, virus and fungi to give reasons why these are not plants or animals. Research how micro-organisms can be helpful or harmful. Research unusual animals e.g. axolotl, platypus, kangaroos etc.

- National curriculum:**
- Describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including micro-organisms, plants and animals
 - Give reasons for classifying plants and animals based on specific characteristics

Key vocabulary

Vertebrates	Insects
Fish	Spiders
Amphibians	Snails
Reptiles	Worms
Birds	Flowering
Mammals	non-flowering
Invertebrates	

Spiritual Development *Isaiah 43:19*
 "See, I am doing a new thing! Now it springs up; do you not perceive it? I am making a way in the wilderness and streams in the wasteland."

Assessment for Learning	
	Recapping prior knowledge- beginning of unit- what do children already know? Beginning of each lesson- focus on recall of previous learning (quick quizzes)



Enriching lives every day; enabling our school community to learn, achieve and flourish through living 'life in all its fullness'



<p>Key Learning- what will the children know by the end of the unit? <i>Living things can be formally grouped according to characteristics. Plants and animals are two main groups but there are other living things that do not fit into these groups e.g. micro-organisms such as bacteria and yeast, and toadstools and mushrooms. Plants can make their own food whereas animals cannot.</i></p> <p><i>Animals can be divided into two main groups: those that have backbones (vertebrates); and those that do not (invertebrates). Vertebrates can be divided into five small groups: fish; amphibians; reptiles; birds; and mammals. Each group has common characteristics. Invertebrates can be divided into a number of groups, including insects, spiders, snails and worms. Plants can be divided broadly into two main groups: flowering plants; and non-flowering plants.</i></p>		
Know how to group living things	Animals can be put into one of two groups- vertebrates and invertebrates	
Know that vertebrates are animals with a backbone	Invertebrates- Are animals with no backbone	
Know how to group vertebrates and invertebrates.	There are 3 ways invertebrates can be grouped- Insects, arachnids, molluscs. there are 5 ways Vertebrates can be grouped- Fish, amphibians, reptiles, birds, mammals	
Know how to spot a fish- Breathes with gills/lays eggs in water/has fins and scales/its body temperature changes	How to spot an insect- 3 body sections/6 legs	
Know how to spot an amphibian- Born with gills then develops lungs/lays eggs in water/damp skin/body temperature changes	How to spot an arachnid- 2 body sections/8 legs	
Know how to spot a reptile- Breathes with lungs/lays eggs on land/dry scaly skin/body temperature changes	How to spot a mollusc- Slimy foot/Often have a shell	
Know how to spot a bird- Breathes with lungs/lays eggs with hard shells/ has feathers/steady body temperature	Deciding which animal or plant is which	
Know how to spot a mammal- Breathes with lungs/babies are born live/body hair or fur/steady body temperature/feeds babies milk	Key Features to distinguish between animals- Invertebrate or vertebrate • Mammal/reptile/fish/amphibian/bird • Colour • Length • Number of legs • Number of body segments • Distinguishing features • Habitat	Key Features to distinguish between plants- Flowering or non-flowering • Grass/cereal/garden shrub/deciduous/algae/ coniferous/fern • Colour • Height • Number of flowers • Fruit bearing or not • Distinguishing features • Usual location
Understand the key features of microorganisms and give reasons for classifying them based on these characteristics	Include algae, fungi, protozoa, bacteria and viruses. Smallest organisms on Earth. They perform photosynthesis, break down waste and infect other organisms	
Activity ideas	Use secondary sources to learn about the formal classification system devised by Carl Linnaeus and why it is important. Use first-hand observation to identify characteristics shared by the animals in a group. Use secondary sources to research the characteristics of animals that belong to a group. Use information about the characteristics of an unknown animal or plant to assign it to a group. Classify plants and animals, presenting this in a range of ways e.g. Venn diagrams, Carroll diagrams and keys. Create an imaginary animal which has features from one or more groups.	