Year 6 Science Curriculum

Working scientifically links Rubric/PCMD opp. Key Vocabulary

Living Things and their Habitats

What's the big picture? Recap prior knowledge from Year 4 unit - revisit questions generated from year 4 *"I know how to ask simple scientific questions"*

Prior learning

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)

National Curriculum Principles	Objectives	Knowledge and key Vocabulary	Reading opportunities	Technology
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.	I know how living things have been classified I can classify living things into broad groups according to observable characteristics and based on similarities and differences	What is **classification**? - group according to **characteristics**. How are living things classified? 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. 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;	Beetle Boy (M G Leonard) Insect Soup (Barry Louis Polisar) Fur and Feathers (Janet Halfmann)	

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		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. Research the work of Carl Linnaeus who invented the classification system and why it is important. Create an imaginary animal which has features from one or more groups. Use keys to classify living things into groups - look at duck billed platypus - which group is it in and why?		
Give reasons for classifying plants and animals based on specific characteristics.	I can give reasons for classifying plants and animals in a specific way	Why do we classify? - to help us understand and **organise** living things		

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Famous scientists

Carl Linnaeus - classification

Libby Hyman - classification of invertebrates

Common misconceptions

Some children may think:

- all micro-organisms are harmful
- mushrooms are plants.

Enquiry ideas

Comparative tests	Identify and classify	Observations over time	Pattern seeking	Research
How does the temperature affect how much gas is produced by yeast?	How would you make a classification key for vertebrates and invertebrates or micro organisms?	What happens to a piece of bread if you leave it on the windowsill for two weeks?	Do all flowers have the same number of petals?	What do you different types of microorganisms do? Are they always harmful?