Year 6– Living Things and their Habitats

Year 6 – Living things and their habitats		
National Curriculum Objectives	**Declarative Knowledge**	**Procedural Knowledge**
National Curriculum PoS Living things and their habitats Pupils should be taught to: • 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.	**Prior Learning** Categorising living things, classification keys **Who is Carl Linnaeus and what was the system that he designed?** • Know who Carl Linnaeus is. • Know and be able to explain how Carl Linnaeus developed the classification system. • Know how to classify living things using the Linnaeus system. • Know how living things are classified at each level of the Linnaeus system. **How can we sort and group animals?** • Know how to sort and group animals based on their features. • Know how to place animals into certain groups based on certain characteristics. • Know why living things are placed in one group and not another. **What are the benefits of classifying animals?** • Know reasons for the classification of animals. • Know a variety of different characteristics that can be used to describe and classify different animals. **What are micro-organisms?** • Know the useful and harmful effects of different microorganisms. • Know and be able to name types of microorganism. • Know how to describe the characteristics of groups of organisms using images as prompts. • Know that the board groupings, such as micro-organisms, plants and animals can be subdivided. **What happens to food if we leave it out of the fridge?** What happens to a piece of bread if you leave it on the windowsill for two weeks?	• 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.

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	• Why do we need to classify living things? • How do we classify? • What are the difficulties with classification? (penguins, whales, platypus) • How do animals change over time? • Why does variation exist? • What happens if animals of different species breed? (hybrids) • What happens to house plants outside? • What are microorganisms? • How can we prevent the spread of disease? • Why do animals and plants compete – and what for?	
Prior Learning	**Key Questions**	**Future Learning**
In Year 4 Children should: • Recognise that living things can be grouped in a variety of ways. • Explore and use classification keys to help group, identify and name a variety of living things in their local and wider environment. • Recognise that environments can change and that this can sometimes pose danger to living things.	• Why do we need to classify living things? • How do we classify? • What are the difficulties with classification? (penguins, whales, platypus) • How do animals change over time? • Why does variation exist? • What happens if animals of different species breed? (hybrids) • What happens to house plants outside? • What are microorganisms? • How can we prevent the spread of disease? • Why do animals and plants compete – and what for?	**In Key Stage 3 the children will learn about:** • the dependence of almost all life on Earth on the ability of photosynthetic organisms, such as plants and algae, to use sunlight in photosynthesis to build organic molecules that are an essential energy store and to maintain levels of oxygen and carbon dioxide in the atmosphere • the adaptations of leaves for photosynthesis. • the interdependence of organisms in an ecosystem, including food webs and insect pollinated crops • the importance of plant reproduction through insect pollination in human food security • how organisms affect, and are affected by, their environment, including the accumulation of toxic materials.
Vocabulary	**Key Scientists**	**Linked Texts**
Variation Organisms Populations. Classification Characteristics Environment, flowering, nonflowering, plants, animals, vertebrates, fish, amphibians, reptiles, mammals, invertebrate, human impact, nature reserves, deforestation. Classify, compare, bacteria, microorganism, organism, invertebrates, vertebrates, Linnaean.	**Carl Linnaeus** (Identifying, Naming and Classifying Organisms)	**Beetle Boy** (M G Leonard) **Insect Soup** (Barry Louis Polisar) **Fur and Feathers**

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				(Janet Halfmann)	
Teaching Ideas					
Comparative tests	**Identify & Classify**	**Observation over time**	**Pattern seeking**	**Research**	**Big Question**
How does the temperature affect how much gas is produced by yeast? Which is the most common invertebrate on our school field?	How would you make a classification key for vertebrates/invertebrates or microorganisms?	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 different types of microorganisms do? Are they always harmful? To be able to research and find out about the significance of the work scientists such as Carl Linnaeus, a pioneer of classification.	In what ways can we sort living things?