Year 6 Science Knowledge Organiser: Living Things and their Habitats

Subject Specific Skills

- I can give reasons for classifying plants and animals based on specific characteristics
- I can plan different types of scientific enquiries to answer questions
- I can describe how living things are classified into broad groups
- I can record data and results of increasing complexity using scientific diagrams and labels, classification keys, tables, scatter graphs, bar and line graphs

Prior Learning

- 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.
- Describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird.
- Describe the life process of reproduction in some plants and animals.

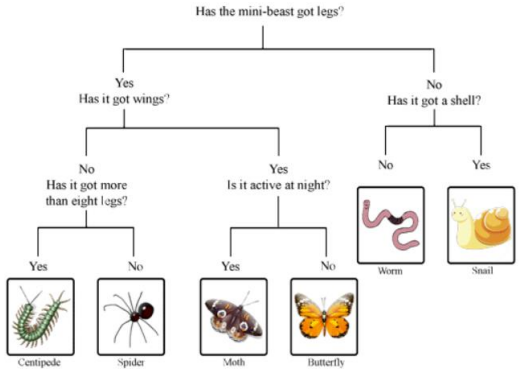
Key Knowledge:

Classification is a way of grouping different living things together by their features.

Plants and **animals** are two main groups but there are other livings 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 (invertebrates); and those that do not (invertebrates).



Key Vocabulary

Fish - an animal that lives in water.
Amphibians - an animal that can live on land or in water.
Reptiles - an air-breathing animal that has scales instead of hair or feathers.
Birds - an animal with feathers and wings.
Mammals - an animal that breathes air, has a backbone, and grows hair at some point during its life. All female mammals have glands that can produce milk.
Insects - an animal with six legs
Spiders - an animal with eight legs.
Snails - a soft bodied invertebrate that lives in damp or aquatic environments.
Worms - soft, long-bodied invertebrate.
Flowering - a plant which produces flowers.
Non-flowering - a plant which does not produce flowers.

Key Individual:

Carl Linnaeus

Key Knowledge:

Invertebrates and vertebrates

An invertebrate has no internal skeleton or backbone. Some invertebrates, such as insects and crustaceans, have hard exoskeletons, while others, like jellyfish, are supported by water. There are many groups of invertebrates. Some of these are: **insects, arachnids, crustaceans, molluscs, myriapods and worms.**

A vertebrate is an animal with a bony spinal column or backbone. It has a spinal cord and a skull enclosing the brain and eyes. Vertebrates are divided into five main groups: **mammals, birds, fish, reptiles and amphibians.**

Plants – can be divided into two main groups: **flowering** and **non-flowering** plants.

- Non-flowering plants include conifers, ferns and mosses.
- Flowering plants include all other plants, including most trees, grasses and shrubs.

Microorganisms – are too small to see without a microscope. Common microorganisms include bacteria and some fungi.