KNOWLEDGE ORGANISER: Science – Group and Classify Living Things - Year 4 Autumn 1

1. Understanding Classification

   - Intention: Understand why we classify living things.

   - Success Criteria: Can explain what classification is and its importance.

2. Identifying Characteristics

   - Intention: Identify key features used to classify living things.

   - Success Criteria: Can list and describe characteristics of plants and animals.
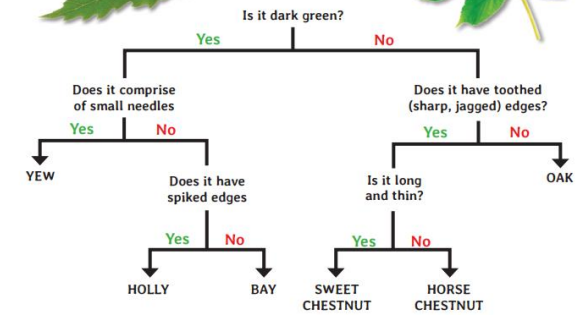
3. Grouping Living Things

   - Intention: Group living things based on shared characteristics.

   - Success Criteria: Can categorize living things into groups like mammals or plants.

4. Using Classification Keys

   - Intention: Use and create simple classification keys.

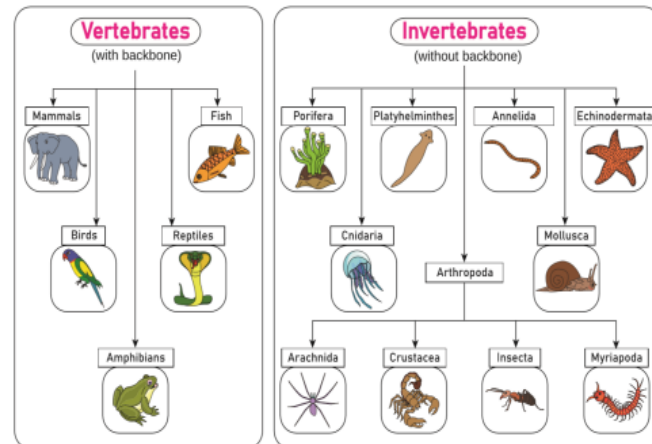   - Success Criteria: Can use and make basic keys to identify living things.

You can use classification keys to help group, identify and name a variety of living things. Here is an example of a classification key:
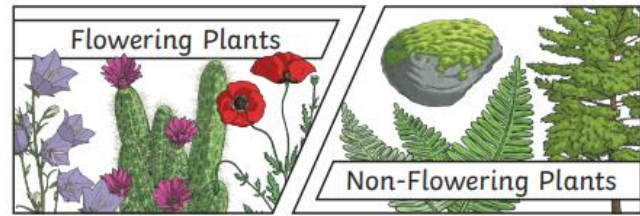
Key Vocabulary

characteristic	A quality or appearance that makes an individual or a group different from others
classification	Grouping things based on their characteristics so that they can be identified
consumer	A consumer eats producers or other consumers in a food chain
environment	The conditions in which a living thing exists. Soil, climate and other living things all count as part of the environment.
hibernate	An animal or plant that spends the winter in a dormant state
invertebrate	An animal that does not have a backbone. Examples are snails, worms, spiders and insects
migrate	The long-distance movement of animals, usually due to a change in the seasons
predator	A predator is an organism that eats another organism. Examples are lions, bears and foxes
prey	Prey is the organism that a predator eats. Examples are zebras, fish and rabbits
producer	An organism that makes its own food, such as a plant
vertebrate	An animal that has a backbone. Fish, amphibians, reptiles, birds and mammals

Classification

Vertebrates (with backbone): Mammals, Fish, Birds, Reptiles, Amphibians

Invertebrates (without backbone): Porifera, Platyhelminthes, Annelida, Echinodermata, Cnidaria, Arthropoda, Mollusca, Arachnida, Crustacea, Insecta, Myriapoda

Classification key:
Is it dark green? Yes / No
- Yes → Does it comprise of small needles? Yes → YEW / No → Does it have spiked edges? Yes → HOLLY / No → BAY
- No → Does it have toothed (sharp, jagged) edges? Yes → Is it long and thin? Yes → SWEET CHESTNUT / No → HORSE CHESTNUT / No → OAK

Changes to an **environment** can be natural or caused by humans. Changes to an **environment** can have positive as well as negative effects. Here are some examples of things that can change an **environment**.

Natural
• earthquakes
• storms
• floods
• droughts
• wildfires
• the seasons

Human-Made
• deforestation
• pollution
• urbanisation
• the introduction of new animal or plant species to an **environment**
• creating new nature reserves

Plants and animals rely on the **environment** to give them everything they need. Therefore, when **habitats** change, it can be very dangerous to the plants and animals that live there.

Plants can be sorted into many different groups. For example:

Flowering Plants

Non-Flowering Plants