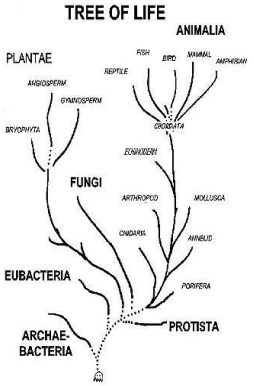
Living Things and Their Habitats Knowledge Organiser – Year 4 - BIOLOGY

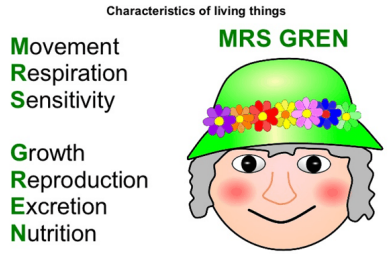
Sticky Knowledge

- ✓ Living things can be grouped in many different ways. This is where the idea of 'the tree of life' comes from, as the picture it forms looks like the branches of a tree.
- ✓ Classification keys are used by scientists to identify living things that they do not recognise. They follow questions with 'Yes / No' answers until they find it.
- ✓ All living things are distantly related to one another. For example, mammals, birds, reptiles, amphibians and fish are all vertebrates (they have a spine and four limbs).
- ✓ Environmental damage through global warming, pollution and habitat loss are causing many species of life to become extinct (lost forever).



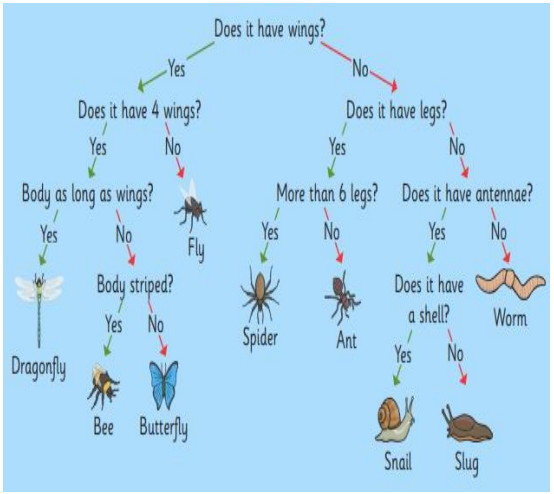
Big Idea

All living things (organisms) change and are affected by the environments in which they live. They can also be grouped in different ways – for example: Animals, Plants, Fungi etc., which in turn can be split into smaller groups, creating a 'tree like' diagram. Living things can also be identified through their features using identification / classification keys.



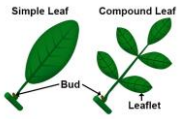
Classification Keys:

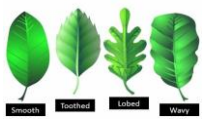
Classification keys using connected, branching 'Yes/No' questions to help with identification.



Important facts to know by the end of the Living Things and Their Habitats topic:

- ➢ All living things can be grouped in different ways according the their relationships to one another or their physical characteristics (what they look life) and the features that they share.
- ➢ Keys are used to identify unknown living things, both within the local area and in the wider world.
- ➢ Environments can change, sometimes naturally, other times due to human activities. This change can pose dangers to living things, potentially leading to their extinction.
- ➢ Trees are often identified by their bark and leaves, which have different shapes and arrangements.

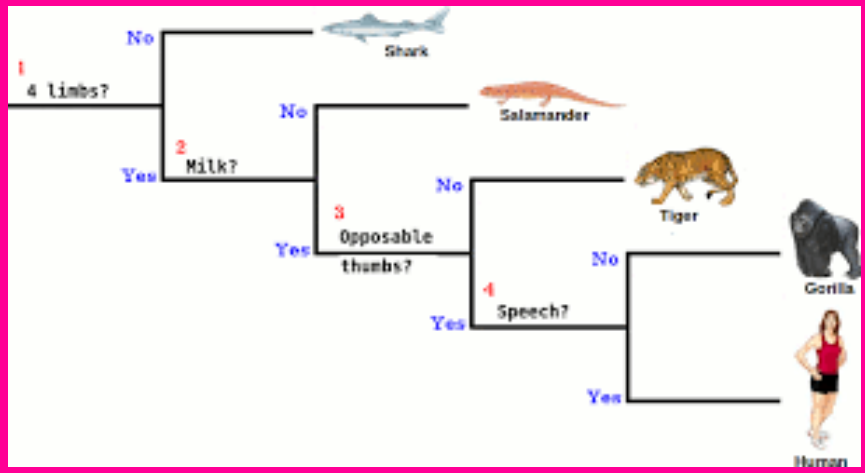




Vocabulary

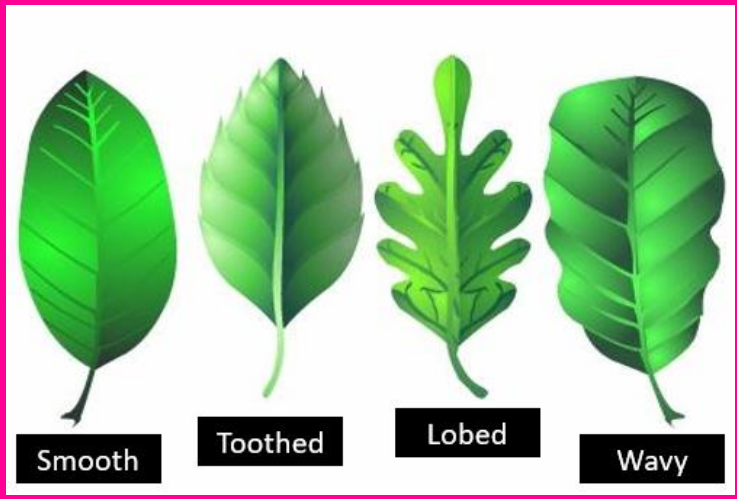
Classification Key: Living organisms can be sorted and identified using 'Yes/No' questions to identify them.
Leaf Arrangement: The positioning of individual leaves on stalks. They can be whorled in circular patterns, opposite or alternating.
Leaf Edge: The outer edge of a leaf. These are usually smooth or jagged (serrated).
Simple Leaves: Leaves formed from a single leaf structure.
Compound Leaves: Leaves formed from many leaflets.
Leaf Veins: Small tubes criss-crossing leaves which carry water and sugar.
Environment: An area containing many different habitats, including both living things and non-living features. Examples: Desert, Forest.
Habitat: The specific area or place in which a living things both live, breed and obtain food and drink from.
Human Impact: Changed caused to environments by human activities.
Species: A specific type of living thing. Example: A rat is a species of rodent (type of mammal).
Life Process: Seven essential features needed for living (See: MRS GREN).
Seasonal Change: Changes to plant growth due to differences in the weather and temperature.
Hibernate: Animals enter a deep, extended sleep during winter months in order to avoid the cold and starvation due to a lack of food.
Migration: Animals and birds, who travel to other places, sometimes thousands of miles away, to avoid winter cold and food shortages.

Classification Key

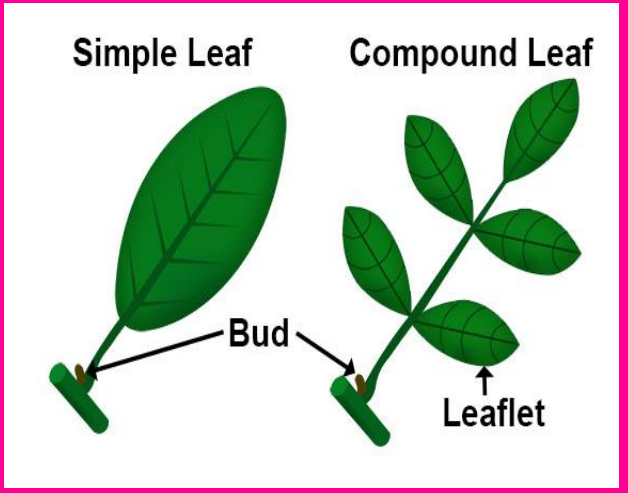


Leaf Veins

Leaf Edge / Margin



Simple / Compound Leaves

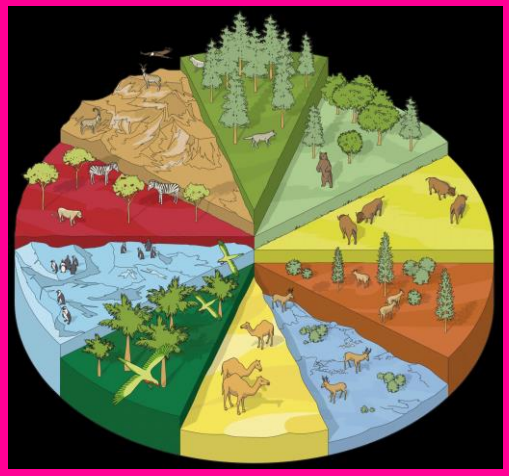


Environment

Leaf Arrangement

(Alternate, Spiral, Opposite, Whorled)

Habitat

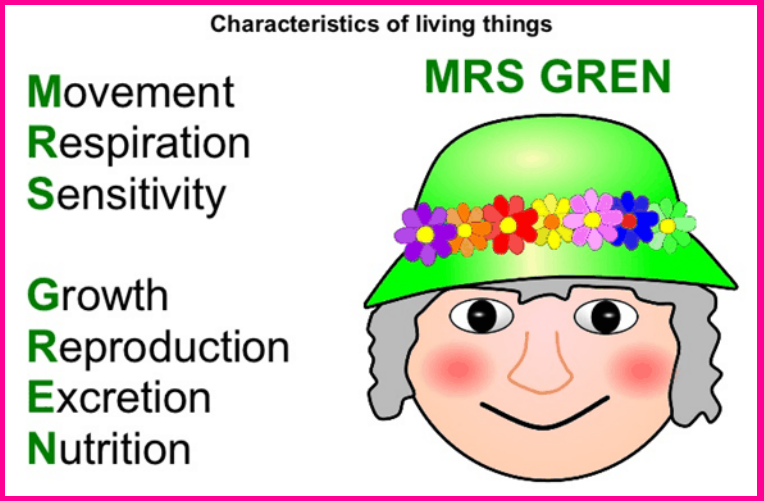


Human Impact

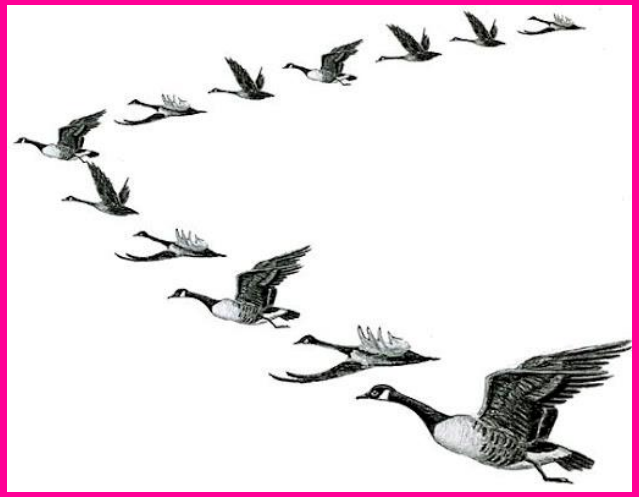
(Positive / Negative)

Seasonal Change

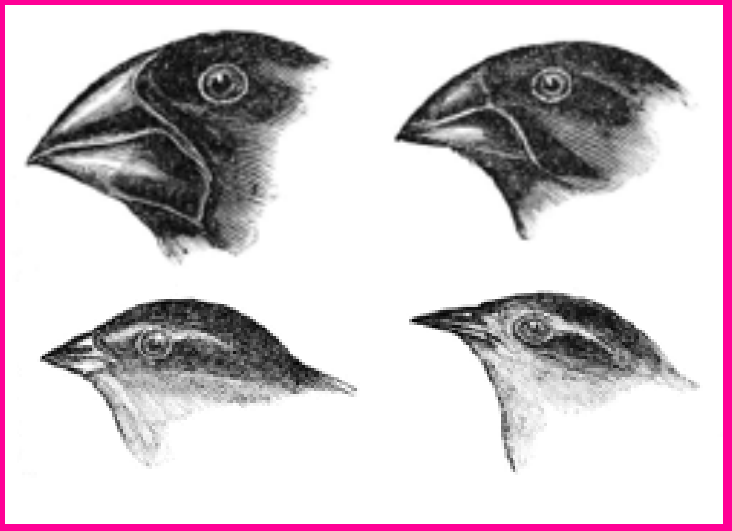
Life Process



Migration



Species



Hibernate