

Preston Primary School Knowledge Organiser

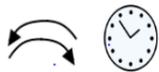
Topic: Science

Term: Spring 1

Year: 5/6

Duration: 5 Lessons

The Powerful Knowledge we will take away from this Learning Enquiry (what I will be learning): How can you classify living things?



- Describe how living things are classified into broad groups according to common observable characteristics.
- Describe how living things are classified into broad groups based on similarities and differences, including micro-organisms, plants, and animals.
- Give reasons for classifying plants and animals based on specific characteristics.
- Use and develop keys and other information records to identify, classify and describe living things.

What I already know:

In Unit 3 all children learned about:

- parts of a plant and their functions.
- how living things can be grouped in different ways.
- use classification keys to group animals.

Earlier this year, the children learnt about the differences in lifecycles of a mammal, an amphibian, an insect, and a bird.

Our Key Vocabulary:

Word	Meaning
Organism	A living thing such as an animal or a plant.
Reproduction	Reproduction is the process where living things create young or offspring either sexually or asexually.
Sexual Reproduction	Sexual reproduction requires two parents to make one offspring. The offspring is genetically different from both parents (some plants and all animals).
Vertebrate	An animal with a spine.
Invertebrate	An animal without a spine.
Classification	Method of arranging organisms into groups.
Classification key	A way of separating organisms into groups or types.
Microorganisms	Tiny organisms such as bacteria, viruses, and fungi.
Bacteria	Simple, tiny, invisible (to the naked eye) microorganisms.
Viruses	Tiny microorganisms that need a host.
Fungi	A group of organisms including mushrooms, mould and yeast.

Characteristics of All Living Things

These are the characteristics that all living things have:

Characteristics of Living Things

Movement
Respiration
Sensitivity
Nutrition
Excretion
Reproduction
Growth



MRS. NERG Movement

All living things move.

- Animals move around to get from place to place.
- Plants grow and turn towards the light.



MRS. NERG Respiration

All living things respire.

- Plants and animals use oxygen in the air to turn the food they eat into energy.



MRS. NERG Sensitivity

All living things are sensitive.

- Every living thing can detect changes in their surroundings.



MRS. NERG Nutrition

All living things need nutrition.

- Food is eaten to provide energy to live.
- Green plants make their own food using sunlight.



MRS. NERG Excretion

All living things excrete.

- Waste products are removed from the body.
- Both plants and animals have to get rid of excess gas and water.



MRS. NERG Reproduction

All living things reproduce.

- Animals have young.
- Plants produce seeds from which more plants grow.



MRS. NERG Growth

All living things grow.

- Animals grow from babies to adults.
- Seeds grow into plants.



Groups of Organisms:

- Vertebrates can be grouped as mammals, birds, fish, amphibians, and reptiles.
- Plants can be grouped as flowering and non-flowering. Flowering plants produce flowers and fruits. Non-flowering plants do not.
- Scientists group organisms to organise animals and plants based on their features.
- Grouping organisms can help us understand how organisms are related to each other.

Classification Keys

Classification keys are used to classify animals.

- Classification keys can be used to identify different unknown animals based on their features, such as number of legs, having fur or scales.
- A classification key is made up of several questions with yes or no answers.
- These questions can then lead to further questions and answers until the identity of the animal is determined.

