

# Living Things and Their Habitats

Science | Year 6 | Unit Overview

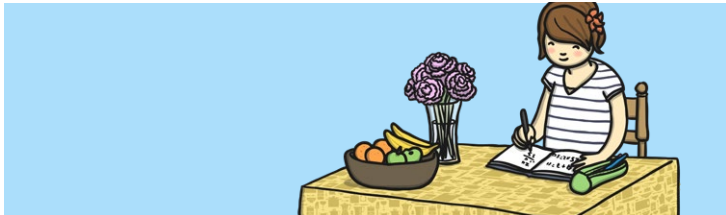
## Introduction

This 'Living Things and Their Habitats' unit will teach your class about the classification of living things, including micro-organisms. The children will build on their work in Year 4 by sorting animals into groups based on their similarities and differences. They will extend their learning to find out about the standard system of classification first developed by Carl Linnaeus, choosing an animal and researching its classification. The children will have the opportunity to design their own 'curious creature' and classify it based on its characteristics. They will learn about micro-organisms, and conduct an investigation into the growth of mould on bread. Furthermore, the children will use play dough to create a new single celled micro-organism and explain how it is classified and why. Finally, the children will put their learning into practice by creating a field guide to the living things in their local area, showing how and why each one is classified.



## Health & Safety

(including food allergies) – Ensure that the slices of bread in Lesson 4 are kept sealed throughout the investigation, and are not opened when children collect their results. Dispose of the mouldy bread slices carefully afterwards, ensuring that children do not come into contact with any mould. Remind children to wash their hands after handling the bread slices in their bags. Check children's allergies before using playdough in Lesson 5. Ensure that children are appropriately supervised when exploring the local habitat in Lesson 6, and remind them not to touch or eat any of the organisms they find. When carrying out investigations ensure children are aware of how to use the equipment safely.



## Home Learning

**Living Things Jigsaw:** Children construct this fun jigsaw by matching the questions to the correct answer. With two levels, this is the ideal resource to check children's learning.

**Classifying Organisms:** In this activity children research the plants and animals that live in a particular habitat and classify them into groups.

## Assessment Statements

By the end of this unit...

### ...all children should be able to:

- Sort and group animals based on their features, using examples as a guide.
- Describe Carl Linnaeus and his development of his classification system.
- Place animals into given groups based on certain characteristics.
- Design a creature with a specific set of characteristics, using prompts and a word grid.
- Name types of microorganism.
- Set up an investigation into harmful microorganisms.
- Design a microorganism using given characteristics.
- Complete descriptions on the characteristics of groups of organisms, using images as prompts.

### ...most children will be able to:

- Give reasons for the classification of animals, using examples as a guide.
- Classify living things using the Linnaean system.
- Match groups of animals to their characteristics.
- Classify creatures based on their characteristics.
- Design a creature that has a specific set of characteristics, using prompts.
- Describe the useful and harmful effects of different microorganisms.
- Identify the variables in an investigation into harmful microorganisms.
- Draw conclusions based on their results.
- Describe the characteristics of different microorganisms.
- Describe the characteristics of groups or organisms, using images as prompts.

### ...some children will be able to:

- Explain how living things are classified at each level of the Linnaean system.
- Design a creature that has a specific set of characteristics.
- Explain their predictions and conclusions in an investigation into harmful microorganisms.
- Describe and compare the structure of the cells of different organisms.
- Describe the characteristics of groups of organisms.

# Lesson Breakdown

## Resources

### 1. Classifying Conundrums

To give reasons for classifying plants and animals based on specific characteristics in the context of sorting and grouping animals for a zoo.

- I can give reasons for classifying animals based on their similarities and differences.



### 2. Linnaean System

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 by finding out about the Linnaean System of classification.

- I can describe how living things are classified into groups.

- Books about classification, or access to the Internet
- Adult support as required



### 3. Curious Creatures

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 by identifying the characteristics of mammals, birds, insects, reptiles, amphibians, fish, arachnids, annelids, crustaceans, echinoderms and molluscs.

- I can identify the characteristics of different types of animals.

To give reasons for classifying plants and animals based on specific characteristics by exploring unusual creatures and designing their own curious creature.

- I can classify a creature based on its characteristics.



### 4. Microorganisms

To describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals by exploring helpful and harmful microorganisms.

- I can describe and investigate helpful and harmful microorganisms.

- 2 slices of bread per child (choose bread with less preservatives for quicker results)
- 2 clear sealable plastic bags per child
- Access to locations with different conditions
- Access to the hall or a large space if required



### 5. More About Microorganisms

To describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals I can identify the characteristics of different types of microorganisms.

- I can identify the characteristics of different types of microorganisms.

- Mould investigation equipment from last lesson
- Mould Investigation Activity Sheets from last lesson
- Playdough in different colours
- Petri dish per child



### 6. Field Guide

To describe how living things are classified into broad groups according to common observable characteristics and based on similarities and differences, including microorganisms, plants and animals by grouping organisms found in the local habitat.

- I can classify organisms found in my local habitat.

To give reasons for classifying plants and animals based on specific characteristics by creating a field guide to the organisms found in the local habitat.

- I can explain the classification of organisms found in my local habitat.

- Access to the habitat around school
- Additional adults to supervise children exploring the habitat, as required
- An audience for children to present their finished field guides to

