# **Living Things and Their Habitats**

Science | Year 5 | Unit Overview

# Introduction

This 'Living Things and Their Habitats' unit will teach your class about the process of reproduction and the life cycles of plants, mammals, amphibians, insects and birds. The children will explore reproduction in different plants, including different methods of pollination and asexual reproduction. They will recap their work in Year 3 by playing a game to name the parts of a flower. The children will have the opportunity to take cuttings from plants, creating clones of the parent plant. They will learn about different types of mammals and their different life cycles, making life cycle wheels to present their learning. Furthermore, the children will find out about Jane Goodall and her work with the now-endangered chimpanzees in Africa. They will explore metamorphosis in insects and amphibians, comparing their life cycles. Finally, the children will explore the life cycles of birds, and will write and star in their own wildlife documentary comparing the life cycles of different living things.



### **Health & Safety**

(including food allergies) – Check children's allergies before taking the cuttings from geranium plants in lesson 2. Remind children to be careful with scissors when taking cuttings. Ensure children wash their hands afterwards. Check that children do not have egg allergies when observing the hen's egg in lesson 6. Ensure children do not eat any raw egg, and that they thoroughly wash their hands after observing it.



#### **Home Learning**

**Life Cycles Research:** In this activity children have the opportunity to research a plant or animal of their choice and record its life cycle.

**Life Cycles Game:** In this fun card game children use their knowledge of life cycles to be the first to order the stages of a plant or animal's life cycle.



#### **Wider Learning**

<u>This website</u> has several useful films to use in the classroom to support children's understanding of life cycles.

Arrange an educational visit to a zoo or farm to look at the baby animals and see the stages of their life cycle in action.

# **Assessment Statements**

By the end of this unit...

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

- Identify parts of a flower.
- Give one difference between sexual and asexual reproduction.
- Describe ways plants can be pollinated.
- Identify plants that reproduce asexually.
- Describe ways to grow new plants other than from seed.
- Identify the stages in the process of sexual reproduction.
- Identify different types of mammals.
- Give three facts about Jane Goodall.
- Describe threats faced by chimpanzees.
- Identify familiar animals that undergo metamorphosis.
- Order the stages of the life cycles of mammals, birds, insects and amphibians.

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

- Explain the function of the parts of a flower.
- Give two differences between sexual and asexual reproduction.
- Identify the features of plants pollinated by insects or the wind.
- Describe the stages of sexual reproduction.
- Describe the differences between the three types of mammals.
- · Give four facts about Jane Goodall.
- Describe the stages of the life cycles of mammals, birds, insects and amphibians.
- Identify similarities and differences between the life cycles of different plants and animals.



# ...some children will be able to:

- Give two advantages and two disadvantages of sexual and asexual reproduction.
- Explain how a plant's features are adapted to pollination by insect or wind.
- Explain that plants that reproduce asexually are genetically identical to the parent plant.
- Explain the classification of different mammals.
- Give five facts about Jane Goodall.
- Explain how the threats faced by chimpanzees could lead to the extinction of the species.
- Compare the stages of the life cycles of plants, mammals, birds, insects and amphibians.



# Lesson Breakdown

# 1. Making New Plants 1

To describe the life process of reproduction in some plants and animals by exploring sexual reproduction in plants.

• I can describe how some plants reproduce.

#### **Resources**



## 2. Making New Plants 2

To describe the life process of reproduction in some plants and animals by exploring sexual reproduction in plants.

• I can describe how some plants reproduce.

- Large geranium plant per group
- Transparent beakers or jars



#### 3. Mammals

To describe the life cycle of a mammal by exploring the life cycles of mammals in different habitats.

To describe the life process of reproduction in some plants and animals by describing sexual reproduction in mammals.

• I can describe the life cycles of different mammals.

- Access to this BBC clip
- Split pins



#### 4. Jane Goodall

To describe the life process of reproduction in some plants and animals by exploring Jane Goodall's work with chimpanzees.

• I can explain what Jane Goodall discovered about chimpanzees.

- Coloured paper as required
- Filming device such as a camera or tablet as required



# 5. Metamorphosis

To describe the differences in the life cycles of an amphibian and an insect by exploring complete and incomplete metamorphosis.

• I can compare the life cycles of amphibians and insects.

# Metamorphis Met Osis Met Osis Met Twinki Twinki Twinki

# 6. Comparing Life Cycles

To describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird by describing and comparing different life cycles, including birds.

• I can compare the life cycles of plants, mammals, amphibians, insects and birds.

- Hen's egg per pair
- Beaker or bowl to crack the egg into per pair
- Access to this BBC clip



