Classifying living things
Lesson Plan

Objectives

By the end of this unit the children should:

- Understand that all living things can be classified into one of five different kingdoms.
- Be introduced to, and be able to name, each of the five kingdoms of life: animals, plants, fungi, prokaryote and protoctista.
- Appreciate that each kingdom contains many different species.
- Know that plants can be sub-divided into flowering or non-flowering groups and be able to provide examples of both.

Key Teaching Point

The great variety of plants, animals and other living things makes it important to identify and classify them. All living things can be divided into five kingdoms, which depend on certain characteristics: animals, plants, fungi, prokaryotes and protoctista. In each kingdom there are many diverse species.

Starter Activity (10 minutes)

Play the film **Kingdoms.**



Arrange the children into pairs and give each pair a Kingdoms activity sheet (already cut up), which provides the names of the five kingdoms and a description of the organisms within.

Ask the pairs to discuss and then match the descriptions to the kingdom names. Tell the children that some of these names may be difficult to remember, but you will ask if anyone can remember these later in the lesson. This activity is great way of introducing the children to the way that scientists classify all known organisms. ***Note:*** Classifications sometimes change as scientists continue to learn more about life on Earth.

Note: Some children may consider fungi, such as mushrooms and toadstools, to be plants. If possible, provide some edible mushrooms that the children can look closely at, in order for them to appreciate the difference between this kingdom and that of the plants. Point out the lack of green on the fungus, and stress that without the green pigment chlorophyll, a fungus is unable to manufacture food from sunlight. Instead, fungi absorb their nutrients from plants or animals.



In each kingdom there are many diverse species.

Main Activity (40 minutes)

Ask the pairs to discuss which kingdom they think the largest organism on Earth belongs to. Take a class vote and explain to the children that they are going to find out in the following film.

Play the film **World's largest organism.**



Ask the children to raise their hand if they guessed that the largest organism on Earth belongs to the fungi kingdom.

Remind the children that all green plants are able to produce their own food.

Ask the children to discuss, in pairs, the process by which plants produce their own food, the conditions that are necessary for this to occur, and why this is so important to life on Earth. Green plants make their own food through the process of photosynthesis. This process requires sunlight, carbon dioxide and water to produce carbohydrate (food) and oxygen. Photosynthesis is important to life on Earth because all living organisms require food and oxygen.

Ask a few pairs to share their ideas with the class.

Ask: What is the purpose of flowers? *To produce seeds for reproduction.*

Display the Ferns and mosses classroom visual on the whiteboard. Tell the children that these are both examples of non-flowering plants. Plants can be grouped by their ability to produce flowers, as either flowering or non-flowering plants. Tell the children that they will now watch a film that looks at how plants can be classified.



Play the film **Plant classification.**

How do non-flowering plants reproduce without flowers/seeds? *They produce spores which do not need to be fertilised. These will grow whenever the right conditions (warmth, oxygen, water) are met.*

In their pairs, ask the children to separate out all the plant pictures from the rest of their kingdoms cards, and then discuss which of the pictures show flowering and non-flowering plants.

Discuss their answers as a class.



Green plants are able to produce their own food.

Review (10 minutes)

Use one or more of the following films to conclude the lesson:

Play the film **Spot the…** 
(You can pause at **00:52** and ask the children to discuss their ideas.)

Play the film **True or false.** 
(You can pause at **00:25** and ask the children to vote.)
Ask the children to name three other organisms that belong to the animal, plant and fungi kingdoms to their partner.

Play the film **Did you know?** 
Ask: Can you name all five kingdoms? *Animal, plant, fungi, protoctista and prokaryotes.*