Insect life cycles

Outstanding Science Year 5 - Living things and their habitats - OS5A003

National Curriculum Statutory Requirements
5A1 - describe the differences in the life cycles of a mammal, an amphibian, an insect and a bird

Learning Objective
I can compare the life cycles of different insects.

Me: Teacher:


Honey bee queen

Honey bees are **social insects**. This means that there are different types of animal with different functions within the **colony** (group of insects). Different **castes** (types) include **drones**, **workers**, and **queens**.
Only one female honey bee in the colony can reproduce - the queen. The queen lays eggs in the **cells** (holes) in a structure called **honeycomb**.
The queen can choose whether to lay a **fertilised egg** (which will hatch into a **female worker**) or an **unfertilised egg** (which will hatch into a **male drone**). The workers cover up the cells.
Inside the cell, the egg hatches into a **larva**. The larva lives inside the cell as it grows, fed by the workers. If the workers feed a female larva with a substance called **royal jelly**, it will become a queen rather than a worker.
The larvae then **pupate** and undergo metamorphosis, emerging in their adult form.
Newly-hatched female queens can leave the colony, **mate** with a male drone and start a new colony.


Adult mason bee

Mason bees are **solitary**, unlike honey bees. There are male and female mason bees and they can all reproduce.
Females find a narrow tube-like hole, such as a hollow twig, to deposit their eggs. They gather pollen and nectar in a pile at the back of the hole and then lay an egg on top. They then make a wall made of mud to create a cell. They move backwards down the tube and repeat the process.
The larvae hatch from the eggs and eat the pollen and nectar. They then pupate and emerge as adults. Males and females emerge from their cells and mate. The males die soon after mating while the females search for a hole to lay their eggs.


Adult butterfly

Female **butterflies** lay their eggs on the underside of leaves. Caterpillars emerge from the eggs and begin to eat voraciously. When they have consumed enough food, the caterpillar pupates and undergoes metamorphosis, emerging as an adult butterfly. Male and female butterflies mate, and the females search for a place to lay their eggs.

Activity

Cut out the pictures and place them in the correct place on each life cycle. Add arrows and write a description of each stage. What do these insects' life cycles have in common? What differences do they have?

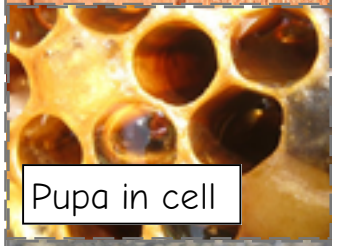
Explanation of life cycle

The life cycle of a honey bee


Adult queen


Egg in cell

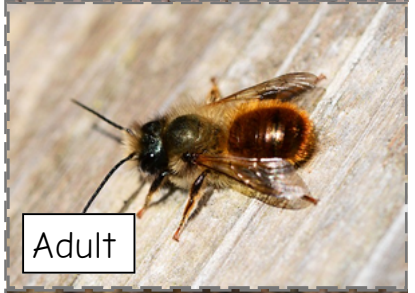

Adult worker


Pupa in cell


Adult drone


Larva

The life cycle of a mason bee



The life cycle of a butterfly