

# Superpillars Assemble

## Butterflies, moths and their habitats

### Summary

Pupils will learn about moths and butterflies and their habitats. They will learn about the important role that butterflies and moths have in food chains, and how different animals in the food chain are dependent on each other to survive. Through a dance activity they will find out about the different ways that habitats can be changed by humans, and understand how these habitat changes can pose dangers to butterflies and moths, and have a knock-on effect on other animals in the food chain.

### Learning objectives

Pupils will learn that:

1. most living things live in environments to which they are suited, and which we call habitats
2. animals obtain food from plants and other animals, and they will learn to describe a simple food chain
3. humans can change habitats in different ways, but these changes may sometimes affect the chances of butterflies and moths surviving
4. other animals in the food chain that use caterpillars as food are affected by changes in butterfly and moth survival.

### Links to the National curriculum:

#### KS1:

- ✓ Identify that most living things live in habitats to which they are suited and describe how habitats provide for the basic needs of different kinds of animals and plants, and how they depend on each other
- ✓ describe how animals obtain their food from plants and other animals, using the idea of a simple food chain, identify and name different sources of food.

#### KS2:

- ✓ identify that animals need the right types and amount of nutrition, and that they cannot make their own food; they get nutrition from what they eat
- ✓ recognise that environments can change and that this can sometimes pose dangers to living things.
- ✓ construct and interpret food chains, identifying producers, predators and prey.

## Preparation and resources

- ✓ This activity works best with the use of a computer and projector or a computer-linked smartboard to display the PowerPoint slides and show the main dance activity. If none are available, printouts of the slides could be used instead and completed without the Dance Activity, but this will be less engaging.
- ✓ Fun activities to accompany the dance: Life Cycle Sudoku, Habitat Word Search
- ✓ Butterfly life cycle handout
- ✓ Food chain handout
- ✓ Scissors and glue to stick and label the butterfly life cycle (optional)

## Supporting information

- ✓ Power point presentations:

Part 1: Butterflies and moths and their habitats (approx. 3 minutes)

Part 2: Butterflies and moths in the food chain (approx. 2.5 minutes)

Part 3: How do humans affect butterfly and moth habitats (approx. 3 minutes)

- ✓ Transcript for power point presentations
- ✓ Pdfs of power point presentations
- ✓ Fun activities Answer Sheets

## Activity Plan

This resource pack is split into 3 main activities which have been designed to be stand-alone with cross-curricular components wherever possible.

### Dance activity 1 – Butterflies and moths and their habitats

Location: classroom and a large indoor area with space to move around safely to dance

Target age group: KS1 and KS2

Target group size: whole class

Duration: maximum 1 hour

Cross-curricular: Science, PE

1. Open the Dance video and ask the pupils to follow the instructions within the Dance video (approx. 25 minutes).
2. Summarise the main points that pupils have learnt during the dance activity. Using the slides provided; “Part 3: How do humans affect butterfly and moth habitats” explain the different ways that humans can change habitats for moths and butterflies and reduce the numbers of moth and butterfly caterpillars that survive.
3. Ask the children to complete the (optional) fun activities: Life cycle Sudoku, Word Search

## Activity 2 – The life cycle of moths and butterflies

Location: classroom

Target age group: KS1 and lower KS2

Target group size: whole class

Duration: maximum 1 hour

1. Using the slides provided; “Part 1: Butterflies and moths and their habitats” introduce butterfly and moth habitats and their life cycle
2. Using the “Butterfly Life Cycle” handout provided, ask pupils to construct the life cycle of a butterfly. From the examples provided, ask pupils to describe which part of the plant a butterfly caterpillar might eat, and which part of the plant may provide food for an adult butterfly.

## Activity 3 – indicator species and food chains

Location: classroom

Target age group: KS1 and KS2

Target group size: whole class

Duration: maximum 1 hour

1. Using the slides provided; “Part 2: Butterflies and moths in the food chain”, discuss the important role that moth and butterfly caterpillars have in food chains.
2. Using the “Food Chain” handout provided, ask the children to answer the questions about the food chain provided.
3. Using the example food chain in the “Food Chain” handout, tell the children that a farmer has sprayed an insecticide on the plant that the caterpillar eats, and that this has killed the caterpillar in the food chain. Ask them to describe how this will affect the other animals in the food chain.

## **Pupil monitoring and evaluation**

Monitor the pupil’s butterfly life cycle and food chain drawings and notes, and offer help if needed.

## **Delivery notes and additional scientific information**

Vocabulary: herbivores, metamorphosis, life stage, life cycle, habitat fragmentation, indicator species, pesticide, insecticide, herbivore, predator, prey, producer, consumer.

## **Feedback**

Please provide us some feedback about [Superpillars Assemble](#). Thank you!

## Linked activities (optional):

1. **History Activity:** How do we know about metamorphosis, and how do we know which caterpillars turned into which adult moth or butterfly? Use the Maria Sibylla Merian slides provided to learn about the achievements of a naturalist and artist whose careful observations and drawings first linked this life cycle together and showed that caterpillars turn into butterflies and moths.
2. **Art Activity:** Butterflies in Art. Using the “Butterfly Wing Art\_Templates” resources provided, ask the pupils to create a picture using cut-out paper butterfly wings. There are two choices ‘Butterfly Art inspired by Evelyn Tongue’ or ‘Butterfly Art inspired by Damian Hirst’.
3. **English Activity (KS1):** Finding Butterflies a book by Oxford Brookes University Undergraduate student, Georgia Wood

## External Resources

- For more activities relating to the importance of butterflies and moths and their habitats, and for information how to create habitats for butterflies and moths at school see Butterfly Conservation's: <https://munchingcaterpillars.org/resources/>
- Cross-curricular English activity (KS1): [Caterpillar Shoes](#) a story on The Literacy Shed
- Cross-curricular English activity (KS2): [The Butterfly Club](#) by Jacqueline Wilson
- [Very Hungry Caterpillar activity sheets](#) by Penguin Random House, Puffin Team