



HOW TO BE A BUTTERFLY

by Laura Knowles, Illustrations by Catell Ronca
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 32 pages, color illustrations
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 Hardcover, 9.25 x 11.4 inches



Learning Objective:

In this nonfiction picture book, children can discover the various aspects of being a butterfly. Through simple text and bright, bold illustrations, butterflies are highlighted through engaging descriptions about body parts, appearance, the lifecycle, eating habits, and how they live. The book also features many labelled images of butterflies, allowing students to see the beauty and relative size of these insects.

Essential Questions in This Unit:

- What are the specific butterfly body parts?
- How does the butterfly's appearance help them?
- What is the butterfly lifecycle?
- What do caterpillars eat?
- How many butterfly species are there?

Not only beautiful to behold, butterflies provide an opportunity to introduce a variety of environmental topics. Serving as key indicators of biodiversity and healthy ecosystems, they face threats of extinction due to climate change and habitat destruction—all vital subjects for children today.

Classroom Discussion Topics

1. Beginning with butterflies, start a lesson on insects that can be found in your area. Contrast/compare butterflies with other types of insects – what body parts do they have? How do they eat? Where do they live and when are they active? How many butterfly species are there vs. ant species, for example? Then look at other creatures like spiders – are they insects? What are the similarities and differences?

2. Talk about the butterfly lifecycle – what are the stages of this metamorphosis? What do children think happens inside the chrysalis when the caterpillar is transforming? Discuss transformations in the animal kingdom – what other creatures go through a large transformation (e.g., flies, frogs, bees) and what creatures remain the same from birth? Why do students think such a large transformation is necessary to these animals' survival?

3. Ask students about the butterfly's appearance. How does their size and wing shape help them? Then discuss the concept of camouflage. Choose a few of the butterflies featured in the book, especially ones that look significantly different from one another. What are their colors? Where could these butterflies land in your community where they might be camouflaged?

4. Look with students about how butterflies use their antennae for smell and balance, then discuss the concept of smell and balance. What animals use body parts other than their nose for balance or smell (e.g., snakes' tongues for scent, cats' whiskers for balance)? Then look at other animals and what they use for smell and balance.

5. Discuss the concept of daytime vs. nocturnal, in particular how butterflies are active during the day and moths at night. What other animals might be nocturnal in their communities? How do they know? Does their family do anything at home to guard against

nocturnal creatures? For example, they might keep the garbage lid on tight to keep raccoons away, or they may keep a house cat indoors.

6. Ask about the eating habits of caterpillars and butterflies. What do caterpillars enjoy best? With what appendage do butterflies eat? Then introduce concepts of what butterflies like to eat, such as flower nectar or sweet fruit juice. What other insects might like the same things? Are there any mammals that might like this as well? Extend the discussion by talking about the eating habits of other animals as well.

7. From the text and illustrations in the book, look at how butterflies fly with students, in particular how their wings are shaped, and how they combine flapping their wings with wind energy to move. What other animals use wings and wind to go from place to place? You may even introduce the larger topic of wind energy for a discussion on how creatures big and small can benefit from it.



Student Activities

1. Create classroom butterfly journals, in which students can draw pictures of butterflies they see in their community and keep a log of information for each one. Think about conducting a field trip to an area in your community where there might be plenty of butterflies to see, perhaps a butterfly house or even a park. Ask students to jot down in their journals what they see. What kind are they? How big are they, and what do their wings look like? Do they have particular markings? Think about having a class contest of who can log the most butterflies, or who has the most complete journal.



2. Watch a butterfly transform in your class! Think about ordering live caterpillars online, or find some in your area to keep in a class container. Challenge students to record observations as the caterpillars grow, such as their eating habits, when they start to eat less and create a pupa, and when they come out of their cocoon. Before the butterflies hatch, ask students to write letters to the butterflies about what they hope for them.

3. Think about throwing a Butterfly Dress-Up Day party! For an art-filled project, get students to create their own butterfly costumes, complete with wings, antennae, and other butterfly body features. Get the children to create wings with construction and/or tissue paper, and don't forget to think about what the antennae will look like. Butterfly-themed snacks or drinks would be a fun addition as well.

4. Ask students to make an object that illustrates the butterfly's lifecycle for display in class. They might choose a necklace, bracelet, hat, or another item on which they can show the different stages. For illustrations, they can choose whatever medium they'd like. Challenge them to stand up in front of the class and talk about their creation – why did they choose it? What are the various stages, and which do they think is the most interesting?

5. For a fun identification test, use the names of the butterflies shown in the book – and research new ones – to create a classroom connection game. You may ask students to connect the caterpillar with the butterfly, the caterpillar with the leaf it likes to eat, or the name of the butterfly with a colorful set of wings.



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