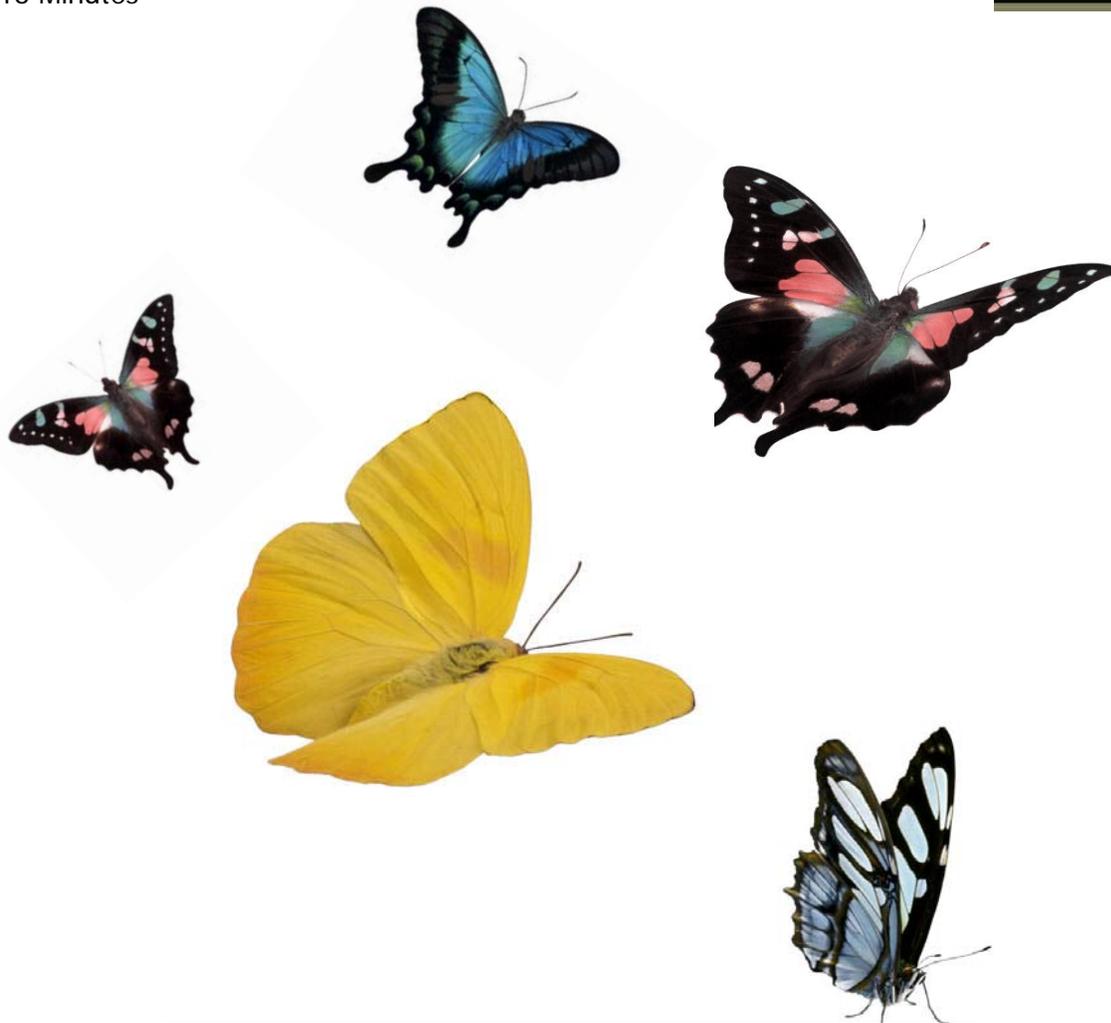


# #10514 BUTTERFLY BASICS

PYRAMID MEDIA, 2002

Grade Level: 3-6

16 Minutes



## CAPTIONED MEDIA PROGRAM RELATED RESOURCES

[#2457 BUTTERFLIES](#)

[#10102 WAITING FOR WINGS](#)

[#10394 INSECT METAMORPHOSIS](#)

## GUIDE FOR BUTTERFLY BASICS, 2<sup>nd</sup> Edition

Subjects: Life sciences, ecology

Audience Level: grades 4 - 6

Length: 16 minutes

Content: Though butterflies may seem fragile and remarkable for their beauty alone, they have an important function in the ecosystem. "Butterflies" describes the widespread habitats in which butterflies live, why they are classified as lepidoptera, how they differ from moths, how they live their lives, and why the world would be poorer without them. We see the complete process of metamorphosis, examine the physical structure of the butterfly, and note how, in feeding, the butterfly assists in plant pollination. Diversity within the butterfly species produces butterflies of many sizes and shapes, with myriad wing patterns. Yet all butterflies have adaptations which allow to perform their life tasks successfully: wing patterns for camouflage and to find and select a mate, basking to soak up the sun's heat for flight, the long proboscis to collect nectar, the slender feet—organs of taste—to find food and identify a host plant on which to lay eggs. Without butterflies, we would miss not only their beauty and delicate flight, but also a vital link in the food chain.

### Objectives

After viewing, students should be able to:

- Define and give examples of the terms species, lepidoptera, adaptation, instinct, host, metamorphosis and diversity
- Describe the steps in metamorphosis
- Recognize the physical structure of the butterfly
- Characterize the ways in which butterflies adapt to their environments and carry out their life processes
- Understand the importance of butterflies to all life on earth

### Discussion Topics

Before viewing:

Bring in pictures of several types of butterflies. Discuss their different sizes, colors and wing patterns, and ask why, if all are butterflies, they can look so different. Though they have many differences, do they also have similarities? Note that the following video will explain their similarities and differences, and how butterflies live their lives.

#### After Viewing:

- Why are butterflies classified as insects? (like all insects, they have six legs and a body made up of head, thorax and abdomen)
- What are species? (types of animals with similar features who are classified together in a group)
- What species is the butterfly? (lepidoptera, meaning scaly-winged) What other insect belongs to this species? (moth)
- How are the moth and butterfly different? (different body structure, active at different times of day)
- What is metamorphosis? (the change from egg to adult) What steps of metamorphosis produce an adult butterfly? (egg, larva, pupa, adult) Do moths go through metamorphosis too? (yes)
- What is a host plant? (the plant on which the butterfly lays her egg and on which the larva feed) How does the larva know what food to eat? (It knows by instinct. It doesn't need to learn where to get food; the knowledge is inborn)
- The larva eats a tremendous amount of food. Why? (to have the energy to grow and begin metamorphosis)
- The adult butterfly does not need to grow. Why does it eat? (to have energy for flying, mating, producing eggs and performing its life functions) Why do people eat? (also for the energy to perform life functions)
- What is an adaptation? (an adjustment organisms make to survive in different circumstances) What are some butterfly adaptations? (wing patterns which serve as camouflage or attract mates, black wing color to absorb sunlight, long proboscis to reach nectar, compound eyes)
- The video notes that there is diversity in all creatures. What does that mean? (organisms within the same species can look and act differently from each other) How do butterflies show diversity? (they have different habitats, colors, wing patterns, host plants, sizes, etc)
- How are butterflies important to all living things? (They help plants reproduce. Without plants, there would be no food for animals and people)

#### Group Activities

- In small groups, make posters showing different types of butterflies with attention to their colors, patterns and body structure. Each poster should have the name of the butterfly and its habitat, and identify the body parts including head, thorax, abdomen, proboscis, compound eye, and scaly wings. Display the posters around the room.
- Butterflies are lovely insects, but we consider many insects, such as mosquitoes, flies, locusts and cockroaches as pests. Yet the world would be a poorer place without them. Have small groups research other insects and why they are important in the world, including insects as pollinators, parts of the food chain, soil aerators.