



Kids Class Series *Butterflies*

This lesson plan can support educational standards for grades K-5.

Georgia

- Kindergarten – 2nd Grade
 - [Life Science \(SKL1 & SKL2\)](#)
 - [Life Science \(S1L1\)](#)
 - [Earth & Space Science \(S2E3\) & Life Science \(S2L1\)](#)
- 3rd – 5th Grades
 - [Life Science \(S3L1\)](#)
 - [Life Science \(S4L1\)](#)
 - [Life Science \(S5L1\)](#)



North Carolina

- Kindergarten-2nd Grade
 - [Structures and Functions of Living Organisms \(K.L.1 & 2.L.1\) , Ecosystems \(1.L.1\)](#)
- 3rd – 5th Grade
 - [Structures and Functions of Living Organisms \(3.L.1 & 5.L.1\) , Ecosystems \(3.L.2, 4.L.1 & 5.L.2\)](#)

LESSON PLAN

Ask Questions to Set Up the Lesson

Below are example questions that can help guide your discussion. These questions/topics can be tailored to the age of your children and more details for grade-specific vocabulary words and topics can be found in the education standards links above.

- What is pollination? / Why is pollination important?
 - Pollination is the process of transferring pollen from the male part of the plant (the anther) to the female part of the plant (the stigma) to fertilize the plant and make seedlings.
 - Helps plants make seeds to make more plants.
 - Helps plants create the fruits and vegetables we eat.
- What is an ecosystem?
 - A healthy ecosystem is one in which multiple species of different types are each able to meet their needs in a stable web of life.
 - The different plants and animals in an ecosystem all depend on each other to survive.
 - How do butterflies fit in the ecosystem?
 - By pollinating plants, they help plants grow to feed both animals and humans. Some species of butterflies also eat bad bugs like aphids. And caterpillars and adult butterflies are a food source for some bats and birds.
- What is a beneficial bug and how can they help your garden?
 - Beneficial means helpful
 - Beneficial bugs are insects that are helpful, performing valued services like pollination and natural pest control
 - Butterflies are beneficial bugs because they help pollinate plants
- Can you name some other good bugs? / What job do they perform?
 - Bees – help pollinate plants
 - Ladybugs – eat bugs like aphids and mites that are harmful to plants; also help pollinate plants

- Spiders – eat bugs like mosquitos and flies that are pesky to humans
- Recap = Why butterflies are important?
 - They spread pollen around from plant to plant while they feed, which helps pollinate our gardens

Life Cycle of Butterflies

Refer to the life cycle illustration on the activity sheet at the end of this lesson plan. An Internet search will yield additional images and details of the life cycle of butterflies. Students can also draw the life cycle.

- Egg
 - Butterfly eggs are usually laid on the leaves of a plant
- Caterpillar
 - When the egg hatches, the caterpillar will start his work and eat the leaf they were born on.
 - Each type of caterpillar only likes certain types of leaves & when hatched, the caterpillars are too tiny to travel to another plant
 - Mother butterfly has to lay her eggs on the type of leaf the caterpillar will eat.
- Chrysalis
 - When the caterpillar reaches its full size, they form the chrysalis around themselves
 - Doesn't look exciting from the outside, but inside a lot of changes are happening to turn the caterpillar's body into the body of a butterfly
- Butterfly
 - When the caterpillar is fully changed inside the chrysalis, it will emerge as the butterfly

A Butterfly's Needs

- What do butterflies need to survive?
 - The basics: food, water & shelter
- What do butterflies like to drink/eat?
 - Butterflies drink plant nectar and juice from ripe fruits
 - What is nectar? Sweet juice found inside some flowers
 - As caterpillars, they eat the leaves of their host plant (the plant they were born on)
- How do butterflies find food?
 - Just like other animals, they search for food by smell
 - Butterflies don't have noses to smell with. They use their antennae to smell!
 - When they find nectar, they suck it up with their proboscis (like a long straw on their face)
- What kind of shelter do butterflies like?
 - Butterflies need protection from rain storms and strong winds & places to rest at night
 - They like: the undersides of large leaves, tall grasses, and cracks in trees and rocks

How to Attract Butterflies to Your Garden

Once you know what butterflies need to survive, you can attract them to your home.

- Plant 'host plants' that the caterpillars like to eat

○ Milkweed	○ Fennel
○ Dill	○ Ornamental Grasses
○ Parsley	○ Basil
- Plant flowers that have nectar to feed butterflies. They especially like:

○ Lantana	○ Sunflower
○ Coneflowers (echinacea)	○ Ornamental Grasses
○ Coreopsis	○ Yarrow
○ Salvia	○ Zinnia
○ Day lilies	○ Verbena
○ Echinacea	○ Marigolds
○ Lavender	○ Butterfly bush (buddleia)



- Hang a butterfly feeder from a tree branch. Use clear nectar and add pieces of fruit to the feeder. Be sure to keep it clean!
- Hang a bug hotel that can be used by butterflies to hide from bad weather and predators. Be sure to choose a bug hotel with wide slits (horizontal or vertical) so butterflies can get their wings inside.



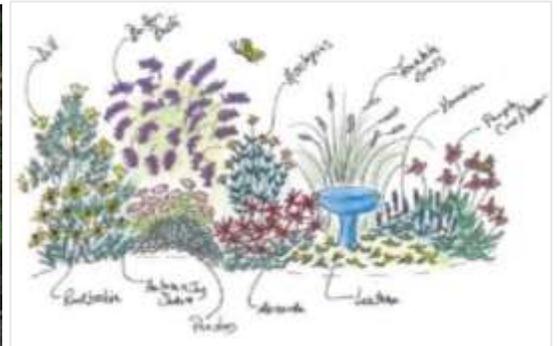
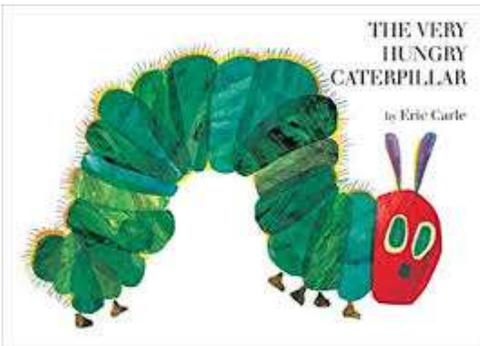
Slits for butterfly wings



Other Butterfly Activities

Doing a variety of activities on a topic helps students engage all their senses and helps solidify the lesson for all types of learners. Other activities can also help students beyond the science lesson, by engaging motor skills, reading comprehension, writing skills, creativity, and even getting outside for fresh air and exercise.

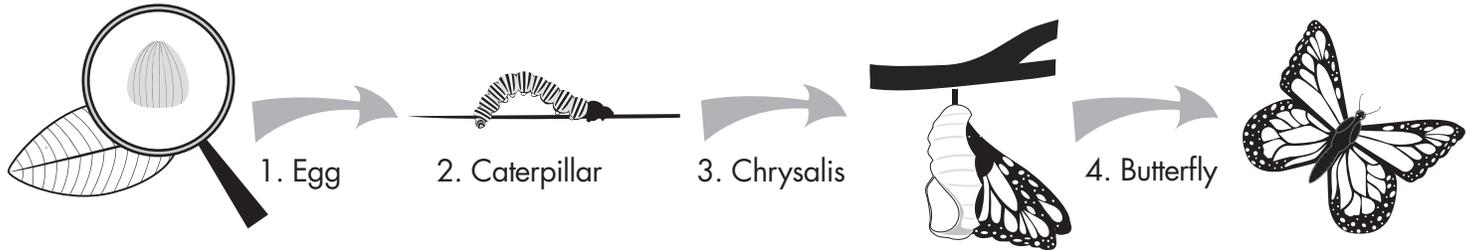
- **Garden Time:** Plant nectar plants that will attract adult butterflies and plant host plants like dill so butterflies can lay their eggs and the caterpillars can eat as they grow. Here is a [Butterfly Garden Project](#) for inspiration.
- **Snack Time:** Make butterfly-shaped snacks from cheese sticks, orange slices, grapes, celery, bananas, watermelon, pretzels, and more. A Pinterest or Internet search will yield lots of inspiration.
- **Story Time:** Read Eric Carle's "[The Very Hungry Caterpillar](#)" or any book from [this Scholastic list](#). Students can also exercise their writing skills by writing their own story about a butterfly.
- **Craft Time:** Make a [Butterfly Feeder](#) from a plastic plate and string. Students can also complete the activity sheets included on the next pages.



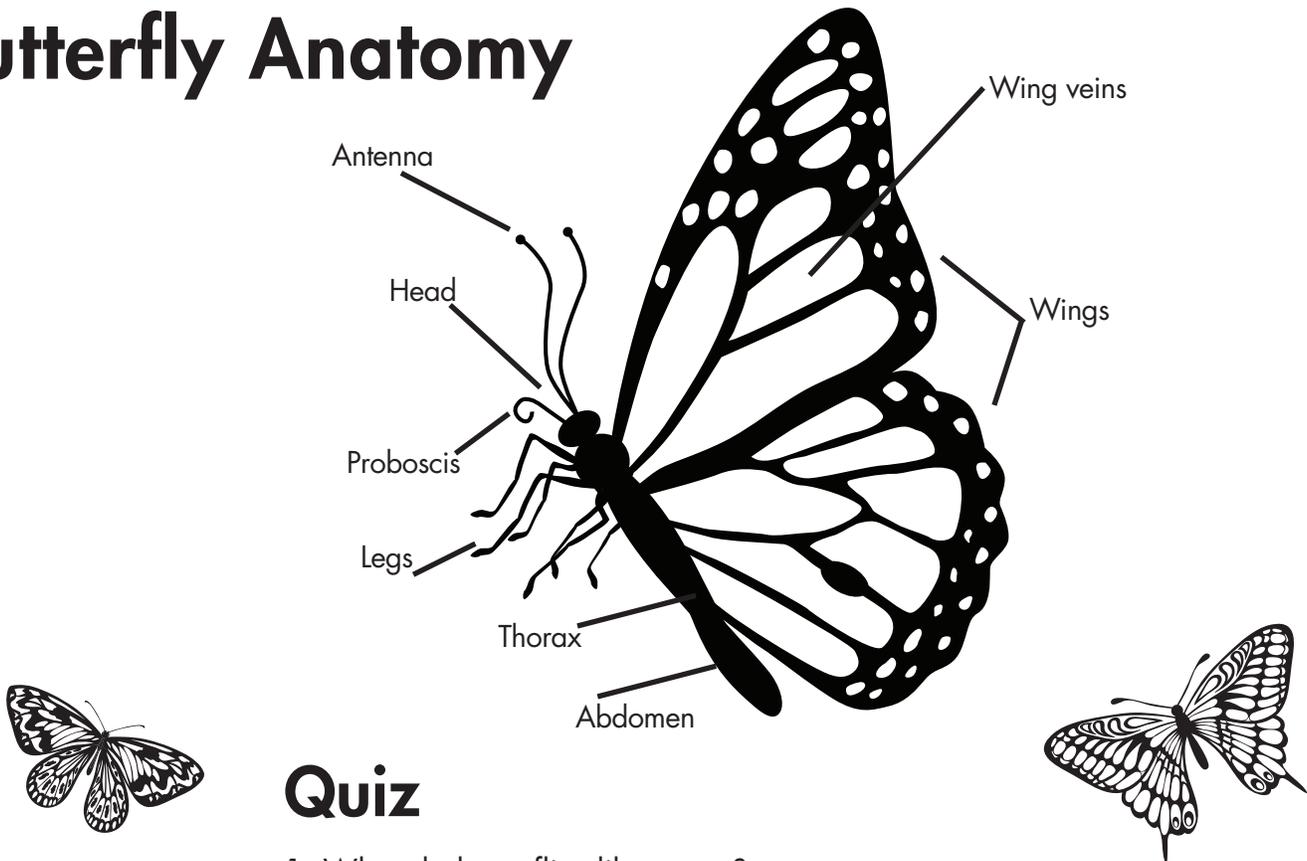


Beautiful Butterflies

Lifecycle of a Butterfly



Butterfly Anatomy



Quiz

1. What do butterflies like to eat?

2. How do butterflies help plants?

3. How many stages are in the butterfly's lifecycle?

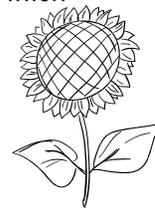
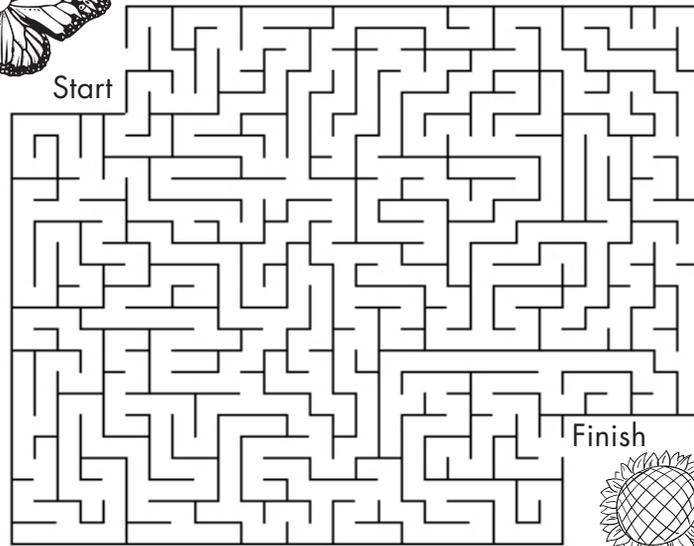
4. What part of their body do butterflies use to smell?

Answers: 1. Nectar from flowers, 2. Spread around pollen during feedings, 3. Four, 4. Antennas



Beautiful Butterflies

Help the Butterfly find the Flower



Design Your Own Butterfly Wings

