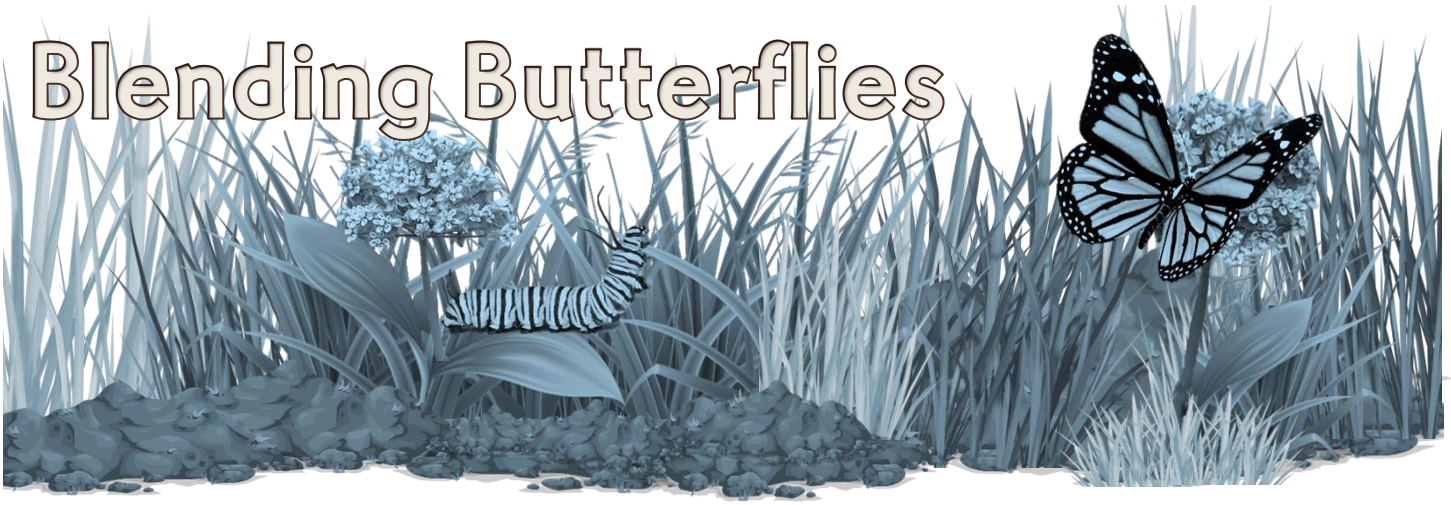
Blending Butterflies



Grades: 2-8

TEKS:
2: 1A & C-G, 2B, 3A-C, 5A & D & F-G, 11B, 12A
3: 1A & C-G, 2B, 3A-C, 5A & D & F-G, 11B-C, 13A
4: 1A & C-G, 2B, 3A-C, 5A & D & F-G, 11B, 13A-B
5: 1A & C-G, 2B, 3A-C, 5A & D & F-G, 11, 12A, 13A
6: 1A & C-G, 2B, 3A-C, 5A & D & F-G, 13C
7: 1A & C-G, 2B, 3A-C, 5A & D & F-G
8: 1A & C-G, 2B, 3A-C, 5A & D & F-G

Topics:
Adaptations
Habitats and Ecosystems
Predator/Prey
Properties/Characteristics

Methodologies:
Craft
Investigating/Experiment
Observations/Qualitative/Quantitative
Poster/Visual Aid

Setting: Classroom

Activity Time: two 30-45 minute periods

Additional Subject: Art

Written by Jennifer Page and adapted by Texas Wildlife Association

Objective:
Students will explore and simulate camouflage in butterflies.

Materials:

Provided	Not Provided
Activity Page	Colored pencils or crayons
Camouflage 101	Tape
Template	

Vocabulary:
adaptation, camouflage, habitat, inherited trait, offspring, predator, survive

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Background:

Traits are characteristics that are inherited or passed from a parent to its offspring, or young. An inherited trait that helps a living thing (biotic) stay alive, or survive, is also known as an adaptation. Camouflage is an adaptation that makes it very hard to see an animal in its natural habitat or the specific environment where it lives. Camouflage is an important factor in some animals' survival by allowing them to hide from their predators. Camouflage is also a trait beneficial to predators, allowing them to blend in while hunting their prey. An animal that is well camouflaged in its environment has a better chance to survive, reproduce, and pass its color pattern on to its offspring.

Activity Preparation:

- Make copies of the Activity Page and template for each student.
- Cut the butterflies out from the template for students or provide them with scissors and instruct them to do so at the appropriate time during the lesson.

Procedure:

Day 1:

Discussion

1. Engage students by asking if they can give you an example of camouflage. Allow several responses and then tell them that the lesson is about different types of camouflage.

2. Read the *Background* section of the lesson to provide information about camouflage and to introduce the lesson's vocabulary.

3. Project the *Camouflage 101* document and briefly discuss each type of camouflage. For older students, stress each example of camouflage as being an inherited trait passed from parent to offspring as an adaptation needed for survival.

Activity A: Creating Butterflies

1. Provide every student with a butterfly template.

2. Instruct students to design their butterfly so that its camouflage allows it to hide somewhere in the classroom, making the butterfly as invisible as possible.

3. When complete, students may tape their butterfly in its "hiding spot".

Day 2:

Activity B: Finding Butterflies

1. Provide every student with the activity page.

2. Instruct students to look around the classroom and count the number of butterflies they can see and write the number on their activity page.

3. Inform students of the total number of butterflies in the classroom and have them complete the

rest of the activity page.

4. When complete, allow older students to share responses regarding the types of camouflage for the specific habitats on the worksheet.

Wrap-up

1. Review the meaning of camouflage as an inherited adaptation that butterflies need for survival from predators.

2. Ask students if they have ever heard the term “steward.” Introduce or review it as a person responsible for overseeing and protecting something, such as butterflies. Ask students to describe ways they can become stewards for butterflies.

Extension:

Have older students research the impact of environmental change on adaptations.

Have older students research other examples of camouflage in the local environment.

Name _____ Date_____

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Number of butterflies I see _____

Total number of butterflies in the classroom _____

1. What type(s) of camouflage were used to disguise the butterflies in the classroom?

2. Which type of camouflage was the best at hiding the butterflies?

3. Why do you think this type of camouflage made it difficult to see the butterflies?

4. For each type of habitat listed, describe a possible type of camouflage. Explain why this type of camouflage would help an animal survive.

Habitat	Type of Camouflage	Explanation
Ocean		
Forest		
Desert		
Prairie (Grassland)		

Blending Butterflies – Camouflage 101

Many animals use camouflage, including butterflies. Different animals use different types of camouflage. Check out the examples below.

Concealing Coloration

This type of camouflage uses coloration to hide against a background of the same color. Many desert animals have tan or muted coloring that blends in with the sand that surrounds them. Desert bighorn sheep and Texas horned lizards are great examples of camouflaged desert animals.

Disruptive Coloration

This type of camouflage breaks up the solid outline of an animal with spots, stripes, or other patterns that resemble the animal's habitat. When a white-tailed deer fawn is born, it has white spots on its back, allowing the fawn to hide on the ground among the grasses. A fawn's spots look like rays of light peeking through the trees.

Disguises

When animals or parts of their bodies look like objects in their environment. The walking stick is an insect that looks like a small tree branch or twig.

Counter Shading

When the coloration of the upper parts of an animal is darker than its underside it's called countershading. This causes the effect of sunlight to be counteracted. Most whales are counter-shaded. If you looked up at a whale from underwater, you would see a light color, just as if the whale was not there—it blends in with the sky. If you look down on a whale, you would see darkness like the ocean floor.

Mimicry

Mimicry is when an animal copies, or mimics, a color or form of something else. Many butterflies use mimicry to survive. Hairstreak butterflies have false antennae and spots on the back of their wings. Birds will peck at the wrong end trying to grab the head, allowing the butterfly to get away.

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