

Camouflage

5th Grade

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References: (Checked 1/2005)

- <http://www.learnnc.org/learnnc/lessonp.nsf/0/661DFCBE6FB9AF66852569740062B879?openDocument>
- <http://sftc.cas.psu.edu/LessonPlans/Wildlife/AnimalCamouflage.html>
- <http://www.zoosociety.org/pdf/GuidedTours/AnimalAdap.pdf>
- <http://www.thewildones.org/Animals/camo.html>
- http://cgee.hamline.edu/see/questions/dp_transformation/dp_trans_adapt_mimic.htm

Benchmarks:

SLC 15: Compare and/or contrast the diversity of ways in which living things meet their needs.

Benchmark A: Students will identify the specific basic needs of all living organisms.

Benchmark B: Students will explain the relationship between physical characteristics and actions, and the way basic needs are met for living organisms.

Objectives:

Students will complete activities to demonstrate that camouflage is a survival technique.

Materials:

- colored toothpicks: 20-30 of each of four or five colors (including green!)
- markers or crayons
- butterfly picture (one for each student)

Initial Demonstration:

Present the students with a box of toothpicks in assorted colors and write the totals of each color on the blackboard. Take the students outside and have them stand in a large circle. Tell the students that they are going to pretend that they are rare birds which only hunt for 10 seconds a day. The only food they eat is colored toothpicks. Spread the toothpicks out on the grass and give the students 10 seconds to collect as many as they can find. Count the number of each color of toothpick that the students retrieved. Compare this to the original count. Which color toothpicks were the easiest to spot and collect? Which were less obvious? Why? Collect the remaining toothpicks and take the students back inside.

Target Observation:

- The colored items which blended in were picked up in smaller numbers.

Target Model:

- Being the same color as the background makes an item hard to find.

Procedure:

Introduce the term **camouflage**. Explain that many animals have colors or markings on their fur, feathers, scales, or skin that enable them to blend into their **habitat** (the place where the animal lives). How might camouflage help an animal to survive? Can the students think of any examples of animals that use camouflage? Pass out one copy of the camouflage handout to small groups of students. Can they find the animals hidden in each picture on page one?

Give each student a copy of the butterfly pattern. Ask the students to pretend that the classroom is a butterfly habitat. Have each student look around the room and select a specific home or habitat for his or her individual butterfly. Each student should then color his/her butterfly pattern so that it will be camouflaged in this habitat. When everyone is done coloring, ask half of the students to leave the classroom and let the other half place their butterflies in their “homes.” The students who left the classroom should return and see how many of the butterflies they can find in 5 minutes. Switch groups and repeat.

What makes effective camouflage? Why is camouflage important? Make sure the students use the words predator and prey in this discussion. Do both predators and prey employ camouflage? (Lions and tigers are two examples of predators that use camouflage to help them capture their next meal.)

Also, introduce the fact that sometimes an animal’s coloration does the opposite of camouflage. Instead of helping hide the animal, its markings or color patterns call for attention. Coloration may issue a warning to another species that they are “harmful if swallowed” (poison dart frogs) or help advertise for a mate (male peacocks). Sometimes, too, coloration is used to make one animal look like another that is more harmful to its predators. This is called mimicry. Have the students look at the second page of the camouflage handout. How are the animals in these pictures using mimicry or bright colors to warn away predators?

Target Observations:

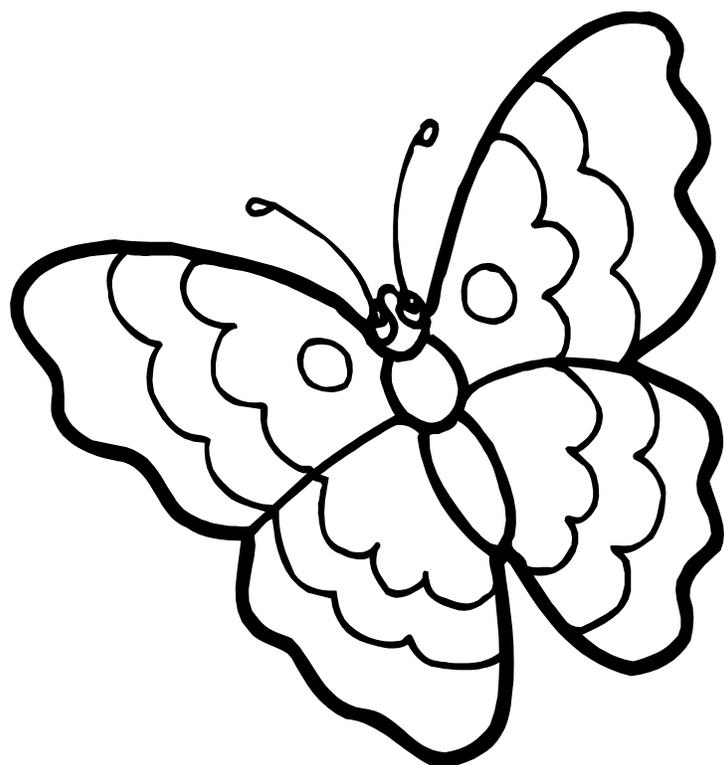
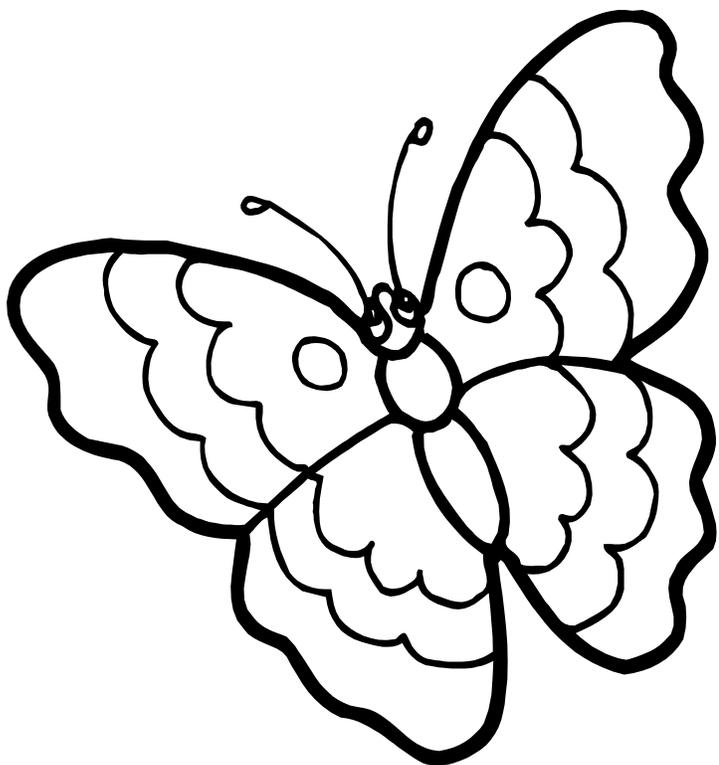
- Predators and prey can both use color as camouflage.
- Some creatures use color as a warning.
- Some creatures use color to attract attention.

Target Revised Model:

- The coloring of animals is purposeful.
- Camouflage helps animals blend into their surroundings, and helps protect animals from predators.

Summary:

The students understand that coloration is necessary for an animal's survival. In some cases, it helps to hide an animal from predators, while in other cases it helps animals find mates or ward off prey by announcing that it is poisonous or distasteful.



Camouflage

Hide and Seek: Some animals use camouflage to blend in with their surroundings and hide from their predators.

Can you find the Katydid in each picture?



How about the animals hiding out below?



moth



lizard



walking stick

Camouflage

Tricked you! These animals are colored/shaped to mimic different animals and scare away their predators.



Hawkmoth



Iomoth

Warning! Warning! These animals are brightly colored to warn predators that they are poisonous or don't taste very good. Pass the salt, please!



Monarch butterfly



Paper wasp



Poison dart frogs

