FLORIDA MUSEUM®

Ages: 5-8 yrs. **Time Required: 20-30 min**

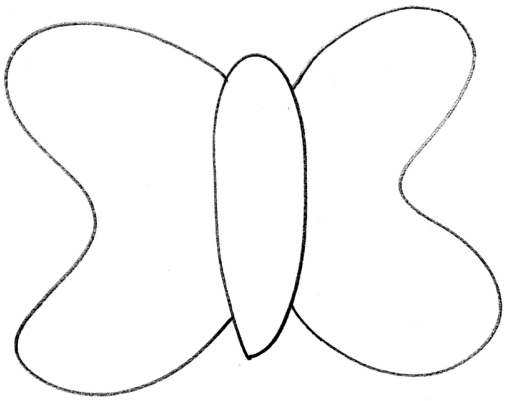
Butterflies and Moths: Camouflage!

Learn how butterflies and moth use camouflage as one way to avoid predators.

Materials

- Drawing paper
- Scissors
- Crayons, markers, pencils
- Tape

Try this!



Step 1: Draw a simple butterfly shape that measures about 6 inches wide from wingtip to wingtip (see picture to the right for example).
Step 2: Explore your surroundings to look for a location where you might want to hide your butterfly. Observe the most common colors and patterns that are present in your secret habitat.
Step 3: Color your butterfly using crayons, coloring pencils or markers so that the butterfly can be hidden (camouflaged) in the secret habitat that you selected.
Step 4: Once you have finished coloring it, cut out the butterfly and tape it on your secret habitat without burying it behind anything. The butterflies must be out in the open, hidden only by their coloring and patterns.
Step 5: Challenge someone that doesn't know about your secret habitat to find your butterfly. If they are having a hard time finding it you can say things like "hot"/"warm" if they are getting closer to it, and "cold"/"freezing" if they are moving away from it.

What's going on?

Butterflies and caterpillars are preyed upon by birds, spiders, lizards and various other animals. Largely defenseless against many of these hungry predators, Lepidoptera (the group that butterflies and moths belong in) have developed a number of passive ways to protect themselves. One way is by making themselves inconspicuous through the use of camouflage.

The coloration and pattern of a butterfly's wings may enable it to blend into its surrounding. Some may look like dead leaves on a twig when they are at rest with their wings closed.

One of the most effective defense mechanisms used by monarch butterflies to protect themselves from their predators is the use of milkweeds. Milkweed contains chemicals that make the monarch bitter tasting. When an animal attacks or eats such animals, the warning colors are associated with a bad experience. Their bright colored spots and bright colors confuse predators and act as signals warning other animals that they are poisonous.

Mimicry is when two unrelated species have similar markings. Some species have markings similar to a poisonous species and gain protection from this similarity. Since many predators have become sick from eating the poisonous butterfly, they will avoid any similar looking animals in the future, and the mimic is protected. The Monarch, Queen and Viceroy are examples of Mullerian mimicry, where all equally toxic species mimic each other to the benefit of all. Predators recognize their color and wing pattern and avoid eating them thus providing protection for all three species. (Monarch and Queens get their toxicity from milkweed and the Viceroy from willows, poplars and cottonwoods).

Some butterflies have eyespots that make them look like a bigger, more dangerous animal, like a snake. An eyespot is a circular, eye-like marking found on the wings of some butterflies. These eyespots make the butterfly look like the face of a much larger animal and may scare away some predators.

Extension Activity

Look for pictures of various flowers and plants. Ask yourself, what color butterfly or moth would be best camouflaged? Try making butterflies that would blend in well with the plants and flowers that you find. You can also print out two copies of the same pictures and cut out on one of the copies a butterfly shape and place it on top of the other picture to achieve some extreme camouflage if you manage to place the cut out butterfly just right!

Additional Resources

You can visit https://www.floridamuseum.ufl.edu/wildflowers/ to learn more about wildflowers and butterflies that you can find in Florida! The following website has additional butterfly resources available to download: https://www.floridamuseum.ufl.edu/discover-butterflies/.