

Name \_\_\_\_\_



## Blending Butterflies

**Problem:** To explore & simulate camouflage in animals

**Background Information:** Traits are inherited and some traits make it easier for living things to survive and reproduce. Camouflage is a trait that makes it very hard to see an animal in its natural habitat. Camouflage is an important part of their survival. It hides the animal from its predators while, at the same time, making the animal a sneaky predator itself.

An animal that is best camouflaged in its environment has the best chance to survive, reproduce, and pass its color pattern on. The colorful patterns may be the result of genetic diversity or mutation.

Examples of camouflage:

**Concealing Coloration** - Using coloration to hide against a background of the same color. Many animals in the Arctic have white coloring to blend in with the snow that surrounds them.

**Disruptive Coloration** – Breaks up the solid outline of an animal with spots, stripes, or other patterns so that the animal doesn't stick out against the background. A Sumatran tiger has stripes that help it hide among the tall grasses

**Disguises** – When animals or parts of their bodies resemble objects in their environment. The insect called the walking stick looks like a small tree branch or twig.

**Counter Shading** - When the coloration of the upper parts of an animal is darker than its undersides. This causes the effect of sunlight to be counteracted. Most whales are counter shaded. If you look up at a whale 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 see darkness like the ocean floor.

**Mimicry** – 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 peck at the wrong end trying to grab the head, and the butterfly can get away.

**Materials:** Butterfly pattern      Map pencils

**Procedure:**

1. Write your name on the back of the butterfly.
  2. Design a butterfly so that it can be hidden / camouflaged somewhere in the classroom.
  3. Make the butterfly as invisible as possible.
  4. Tape the butterfly to its "hiding spot."
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5. While sitting in your seat, count the number of butterflies you can see.

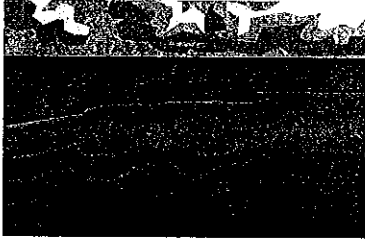

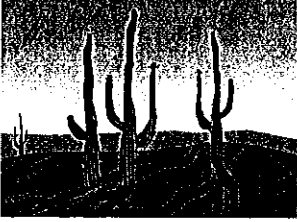

**Data:**

Total # of butterflies in classroom	# of butterflies seen

**Questions:**

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 environment listed, describe a possible type of camouflage. Explain why this type of camouflage would help an animal survive to reproduce.

Environment	Type of Camouflage	Explanation
 <p data-bbox="321 709 435 741"><b>OCEAN</b></p>		
 <p data-bbox="289 997 467 1029"><b>RAINFOREST</b></p>		
 <p data-bbox="326 1308 431 1339"><b>DESERT</b></p>		
 <p data-bbox="321 1596 435 1627"><b>PRAIRIE</b></p>		

