

Backyard Butterflies Teaching Guide

Introductory Activity WHY STUDY THE BUTTERFLY

| DO | SAY |
|---|---|
| <p>Show a collection of pictures of butterflies from <i>The Family Butterfly Book</i> (see resources)</p> | <p>The first reason for studying butterflies is they are beautiful. A cool name to call a butterfly is "leps". It is short for a Greek word <i>Lepidoptera</i>; meaning scales (<i>Lepidos</i>) and wings (<i>ptera</i>).</p> |
| <p>Show picture and handout, "Vanessa, the Painted Lady"</p> | <p>The second reason for studying "leps" is they are small, abundant and suitable for studies. The most accepted theory of how butterflies received their name goes back to the British Isles. One of the most common species there was the Yellow Brimstone. Apparently, people first referred to it as a "butter-colored fly." It wasn't long before the word was shortened to "butterfly".</p> |
| <p>Show pictures of the four stages of butterfly life.</p> | <p>A lep goes through four stages of development, as shown by the handout. It is called a complete metamorphosis (Greek for transformation); egg, caterpillar or larva, chrysalis or pupa, and adult or butterfly.</p> |
| <p>Distribute student handout: "Butterfly Life Cycle"</p> | <p>The third reason, they breed rather quickly, suitable for studies on their biology. They have a short life cycle, about 60 to 90 days.</p> |
| <p>Show pictures on page 10 and 39 of <i>The Family Butterfly Book</i> (see resources).</p> | <p>The fourth reason, they have a relationship with plants and other animals. The eggs are placed on a host plant by the lep. The caterpillar eats from the host plant and the lep; in contrast, drinks only fluids with its straw like proboscis from certain nectar plants.</p> |
| <p>Show picture on page 18 of <i>The Family Butterfly Book</i> showing butterflies obtaining nectar from a plant.</p> | |

In January 2002 thousands of butterflies died in a winter storm in Mexico. Many scientist in the butterfly community wondered if the two largest monarch colonies would recover from this disaster. However, in February 2003 the butterflies were reportedly making a comeback.

Read more:

<http://forests.org/articles/reader.asp?linkid=8437>

<http://www.startribune.com/stories/1551/3652774.html>

if links are broken see reporter

Carol Kaesuk Yoon

View KLRU Backyard Butterflies. Discuss the contents of the program and have the students make a list of suggestions for creating a school butterfly garden.

Create your first butterfly. Give out Student handout: "Balancing Butterfly"

Finally, they react to changes in environmental conditions. They move from areas that do not have the right plants and migrate to areas with plenty of their favorite plants.

Other Discussion:

Many people believe that butterflies are such delicate creatures that they would die in the simplest breeze or anything less than perfect conditions. The truth is, butterflies have evolved to survive and thrive in extreme conditions. Talk about the Monarch butterfly die-off in the mountains of Mexico. Do you think they will come back? They exist everywhere in the world except for Antarctica. They are more in danger from environmental threats caused by humans than from natural weather conditions. They are hardier than we give them credit for, and they survive despite human intervention.

What are some positive actions that your students can take to help provide butterflies and other insects with resources that they will need to survive?

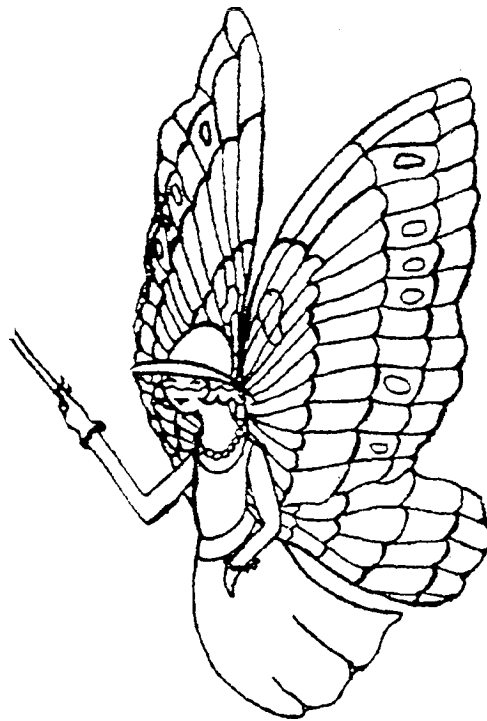
Follow the directions.

VANESSA, The Painted Lady

To help relay the information about butterfly habitat and life cycle, you'll meet VANESSA, a special mascot, who serves as a fun-loving guide for the students as they study their lessons. The Painted Lady (Vanessa cardui) may be the most widespread butterfly in the world. It also is known as the thistle butterfly and the cosmopolitan (because it is so widespread, occurring in North and South America, Europe, Asia and Africa). This flying insect lives in temperate and some topical areas.

The adult Painted Lady is mostly black brown and orange with some white spots; the underside is gray with white and red markings. The adult has a 2- 3 inch wingspan. Adults sip sweet thistle and clover nectar. The caterpillar usually feeds on thistle, mallow, malva, hollyhock and sunflower.

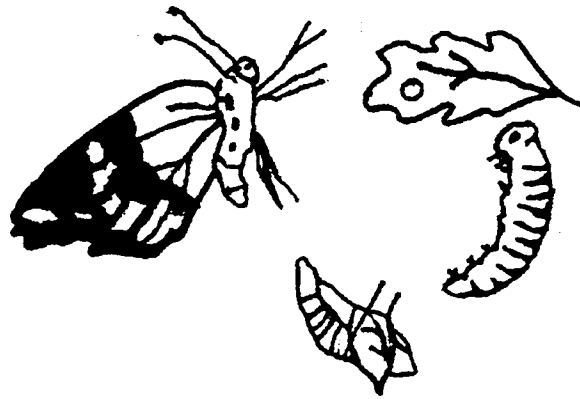
*There goes miss Vanessa,
"The Painted Lady"
Watch her flutter by.
What a busy life she has
As a butterfly*



BUTTERFLY LIFE CYCLE

Butterflies go through four stages of life, but they only look like butterflies in the final stage.

- *An adult butterfly lays an EGG.*
- *The egg hatches into a CATERPILLAR or LARVA.*
- *The caterpillar forms the CHRYSALIS or PUPA.*
- *The chrysalis matures into a BUTTERFLY.*



BALANCING BUTTERFLY

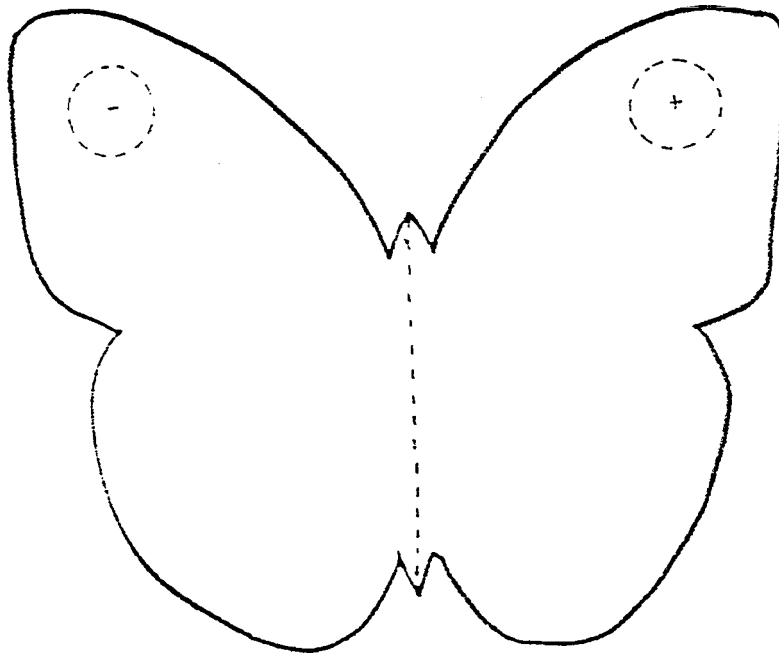
Supplies:

Heavy card stock or watercolor paper
Watercolors/paint brushes
(2) pennies
Scotch tape
Playdough
Pencil

Object: To create a balancing butterfly that looks like it is flying.

Instructions:

- (1) Draw and paint a butterfly on the card stock or watercolor paper attached. Cut out the butterfly, either the one you drew or the one printed.
- (2) On the underside of the butterfly (the side you did not paint) scotch tape a penny on each side.
- (3) Fold on the dotted line.



- (4) Roll a 1 1/2 inch round ball of playdough and stick a unsharpened pencil in the playdough, eraser side up.
(5) Balance the butterfly on the top of the eraser.
(6) Watch the butterfly flutter.

