

# ***Adventures in Learning Butterflies!***

## ***Resource Guide Grades 4-6***



### **Description of our Tour:**

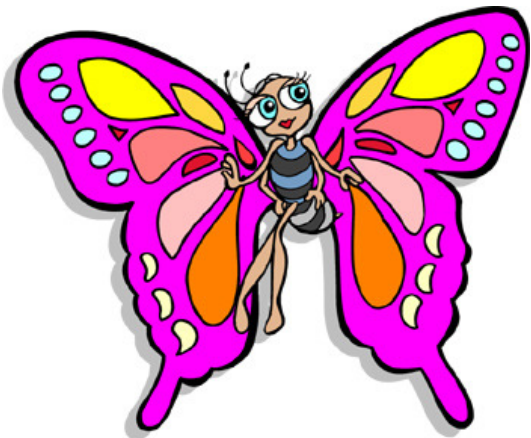
*We all know butterflies are beautiful, but they are also perfect examples of how amazing nature really is. Maria joins us to share her knowledge and first hand experience with butterflies including their metamorphic process, survival strategies and daily life. Join us to learn more about butterflies, ask questions and get tips on how to raise butterflies in your classroom.*

### **Information for Trip Leader:**

#### **Lesson Outcomes:**

The student will be introduced to the following concepts:

- The life cycle of a butterfly
- The basic body parts of a butterfly
- Activities and resources for teachers and students on butterflies



#### **Activities:**

##### ***Activity # 1: Coloring Worksheet***

This worksheet helps students recognize the parts of a butterfly's body. The students should color the picture and then write a description of the butterfly.

##### ***Activity # 2: Butterfly Life Cycle***

Students review the life cycle of a butterfly by completing the activity chart on page 4. Students may use the space provided to explain each stage in words, or to draw a picture.

The children are put in to 4 groups. Each group selects a card (cards have: egg, caterpillar, chrysalis, and butterfly on them). That group needs to make a poster-sized illustration of their topic. They then need to write what they know about that stage on a piece of chart paper and present to class. All four will be hung on bulletin board as our class version of the life cycle of a butterfly.

##### ***Activity # 3 Cause and Effect***

The table on page 6 provides opportunities for students to use problem-solving skills and cause and effect to draw conclusions about the population of monarch butterflies. Students may work individually or in small groups or pairs.

## **Activity # 4: Live Metamorphosis**

Order monarch caterpillars for your classroom. You can find them at <http://insectlore.stores.yahoo.net/> Raise the caterpillars in your classroom and watch them change into beautiful butterflies that you can release into nature.

### **Challenge Questions:**

1. *How does a caterpillar become a butterfly?*
2. *What is a pupa?*
3. *What happens to a caterpillar after it makes a cocoon or chrysalis?*



### **Responses:**

1. The life cycle of a butterfly is egg, larva (caterpillar), pupa (chrysalis), adult
2. The stage in which a caterpillar changes into an adult butterfly
3. Caterpillars change into butterflies or moths.

### **Vocabulary Words:**

- Head - The top body part of a butterfly
- Thorax - The middle body part of a butterfly
- Abdomen - The butterfly's end segment
- Antenna - The parts of a butterfly for feeling, attached to the head
- Caterpillar - A butterfly's larval stage, this is the second stage in the butterfly life cycle
- Chrysalis - A butterfly's hard-cased pupa
- Egg - The first stage in the butterfly life cycle



### **Web Resources:**

<http://www.yesnet.yk.ca/schools/jackhulland/projects/butterflies/index.html>

This web site provides activities, games and information on butterflies for young elementary students

<http://www.carolina.com/butterfly/>

Carolina's own Web portal to all sorts of butterfly information, including activities, classroom resources, and butterfly-related products.

<http://www.abcteach.com/directory/basics/science/animals/bugs/>

Butterfly coloring pages for elementary students

<http://insectlore.stores.yahoo.net/>

This site provides information on how to order monarch caterpillars to raise in the classroom.

**<http://www.uky.edu/Ag/Entomology/entfacts/misc/ef006.htm>**

Provides information and instruction on how to create a butterfly garden

**Suggested Reading:**

Totally Bugs: Dennis Schatz and Peter Georgeson

The Munchy Crunchy Bug Book: Ray Nelson, Doug Kelly, Ben Adams and Julie Mohr

The Very Hungry Caterpillar: Eric Carle

**Writing Prompts:**

- I think butterflies are...
- Butterflies are beautiful because...
- How are moths and butterflies different?
- My favorite butterfly is...

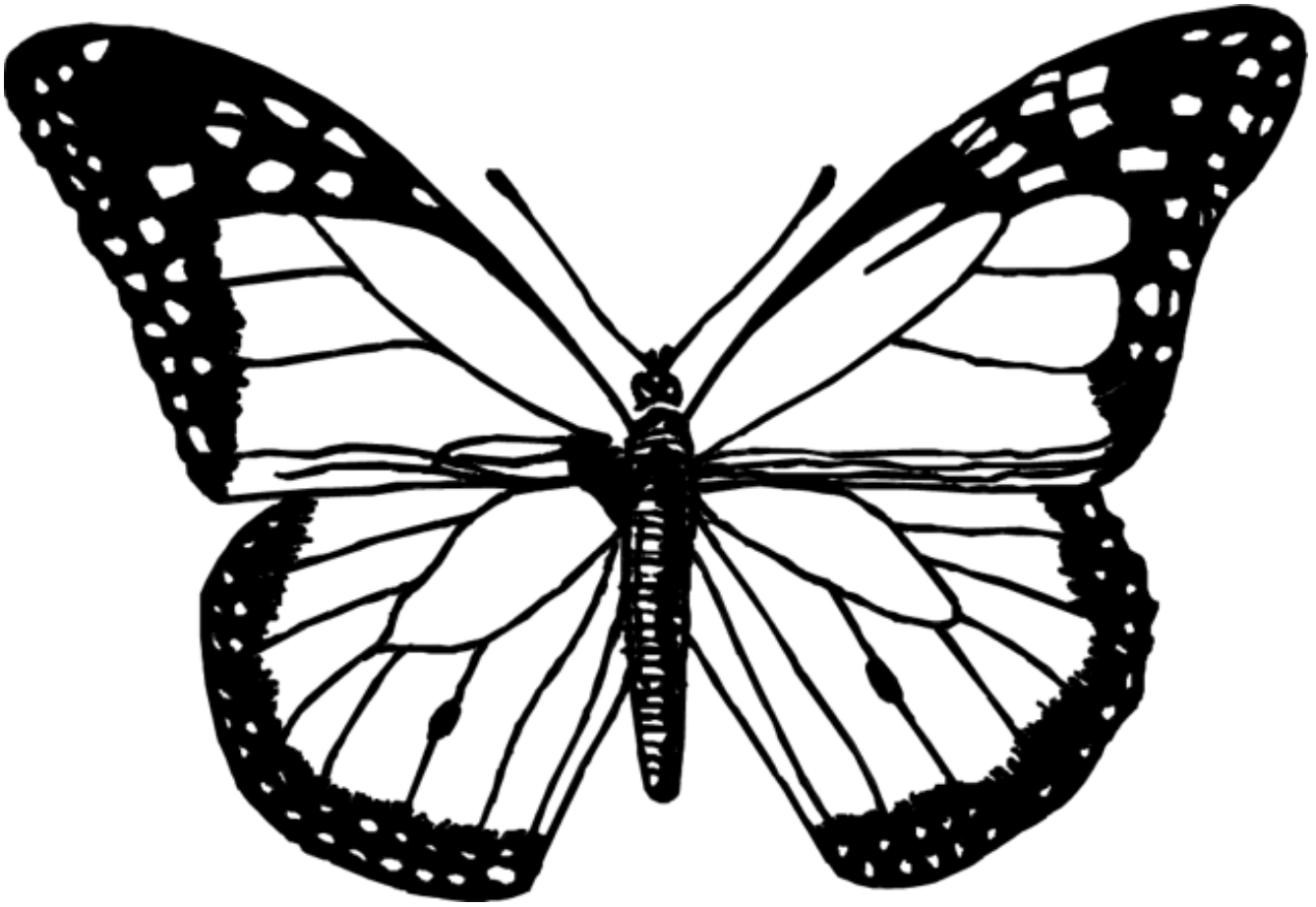


# Butterfly Life Cycle



<i>Life Cycle Stage</i>	Illustration
<b>Egg Stage –</b>	
<b>Larva (or caterpillar) stage –</b>	
<b>Pupa (or chrysalis) Stage –</b>	
<b>Adult (or butterfly) Stage –</b>	

Butterfly Coloring Worksheet



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## Monarch Verses the Environment

As *Junior Scientists*, your team must figure out why the population of Monarchs has been decreasing over the last 5 years. You have gathered some facts and now you are ready to give your report to the *Environmental Science Convention*. Can you help the Monarch to survive? In your team, study the facts below, draw your conclusions, and make a plan. Give your report to the *Environmental Science Convention* (your class).

<b>Monarch Facts</b>	<b>Environmental Facts</b>
Monarchs migrate from Canada to California. They cannot fly at temperatures below 55 degrees.	The northern states had very cold weather last summer – temperatures stayed below 50 degrees for 14 days in a row.
Conclusions:	
Monarchs eat the nectar of eucalyptus trees that bloom from October through November.	3 years ago disease killed many eucalyptus trees and survivors had fewer flowers than usual.
Conclusions:	
During migration female Monarchs lays their eggs on milkweed plants.	A horde of insects ate most of the milkweed plants in the Great Plain states three years ago.
Conclusions:	