



## Butterfly, Butterfly, Butterfly

### **Objective:**

1. Students will demonstrate knowledge regarding the basic characteristics of a butterfly.
2. Students will demonstrate a basic knowledge of the life cycle of a butterfly.

### **Performance Objectives:**

Strand 4: Concept 1 – PO 2-3  
Concept 2 – PO 1

NGSS: K – LS 1. C  
CCSS: K. W. 1-2

### **Background Information:**

Butterflies seem to be everywhere around us. We see them in the garden, in the park, in the school yard and in the forest. Butterflies are beautifully colored and appear to float on the air. Butterflies are a part of the insect world and have been on Earth for a very long time. According to NABA (North American Butterfly Association), there are about 725 different species of butterflies in North America. That is a lot of color flying around.

As a part of the insect world, butterflies share many of the same characteristics as other insects. They have three main body parts: the head, the thorax and the abdomen. Butterflies and moths also have six legs, two antennae, four wings, and a **proboscis**. The proboscis is a long mouthpart that stays coiled up until the butterfly is ready to sip nectar. Then the proboscis acts like a straw drawing the liquid nectar up so the butterfly can drink.

### **Grades: Pre K - K**

#### **Key Vocabulary:**

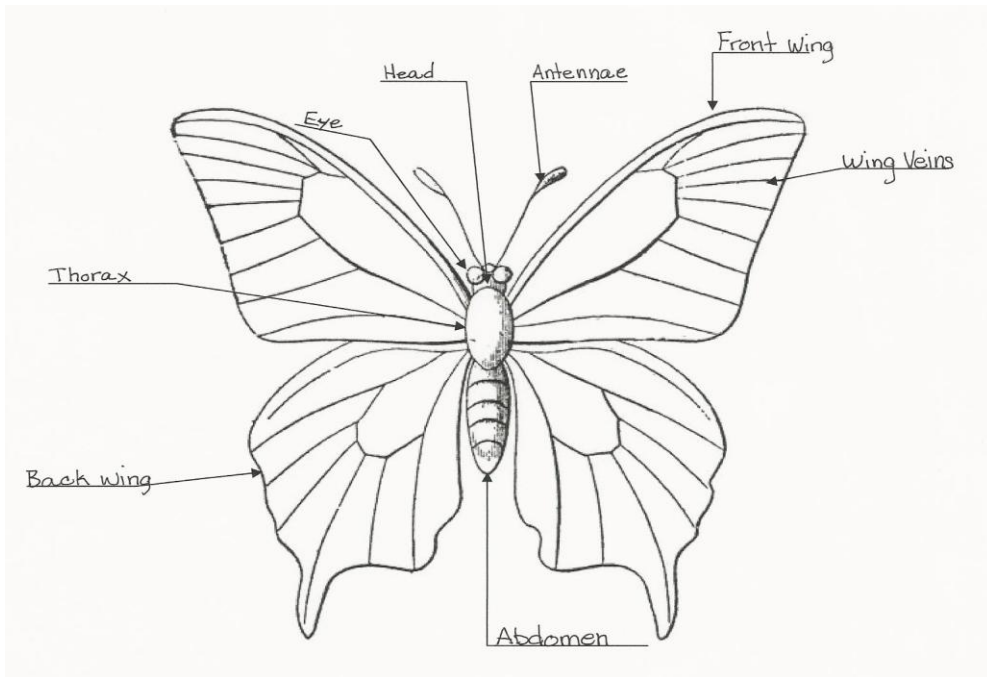
- **Head**
- **Thorax**
- **Abdomen**

#### **Related Literature:**

*My, Oh My – A Butterfly*  
Tish Rabe

*Butterfly Picture Book  
for Kids*  
Karen Wittle

*A Butterfly is Patient*  
Dianna Hutts Aston



The butterfly antennae are used for balance in flight and as a way to sense the things around them.

Butterflies and moths have many similarities. They both have scales on their body and wings. Most butterflies fly during the day and most moths fly at night. A moth has either a plain or feather-like antennae.



Many moths have a thick, furry body, whereas butterflies tend to have a slimmer body with no hair.

(Photo of moth antennae by Linda Hoyer)

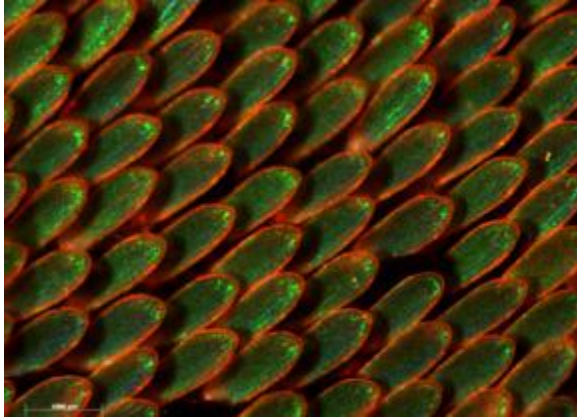


Butterfly antennae with the club or thickened end. Butterflies tend to be more brightly colored than moths.

(Photo by Linda Hoyer at Butterfly Wonderland)

The thorax, middle of the body, is where the legs and wings are attached.

Both butterflies and moths have wings that are made of thousands of tiny scales. Each scale is one color, but put together, the wings of the beautiful butterfly and moth often reflect the brilliance of deep color. Butterflies generally fold their wings up over their back when at rest. Moths rest with their wings open or folded downward over their body.



(Photo by Robert Prum)

The wings are so delicate that once the scales are rubbed off they cannot grow back. That is why it is very important not to handle the butterfly or moth.

The **life cycle** of the butterfly involves 4 stages: egg, larva, pupa and adult. Like many other insects, the butterfly goes through a complete metamorphosis as it becomes an adult.

Depending on the species, butterflies can lay many hundreds of eggs during their life. Generally, the female butterfly lays her eggs on the underside of leaves or even twigs. If the outside temperature is right, the eggs will hatch in about one to three weeks and the newly emerged caterpillar will begin the second stage of the life cycle. The tiny caterpillars start their life with a huge appetite and begin to eat the egg shell around them. The little eating machine moves on to the leaves of plants chewing its way toward the next stage in life.



A caterpillar may shed its skin four or more times as it eats and continues to grow. A caterpillar can travel a great deal eating and growing until it has reached the ideal size and has located just the right place to pupate.

(Public domain photo)

The magic that takes place inside the chrysalis is as remarkable as the beauty of the emerging butterfly. The outside of the chrysalis may appear to blend in with the foliage around it and remains still and protective of the mystery inside.

The transformation that takes place completes the metamorphosis. The organs, tissues and limbs of the caterpillar are changed into the delicate wings and body of the elegant butterfly waiting to emerge. From inside the chrysalis the butterfly emerges with soft, wet wings folded against its body. In a few hours the butterfly will have a body and wings that are ready to fly and begin the life of an adult.

The unique environment at **Butterfly Wonderland** provides a perfect way in which to view the magic of the chrysalis.

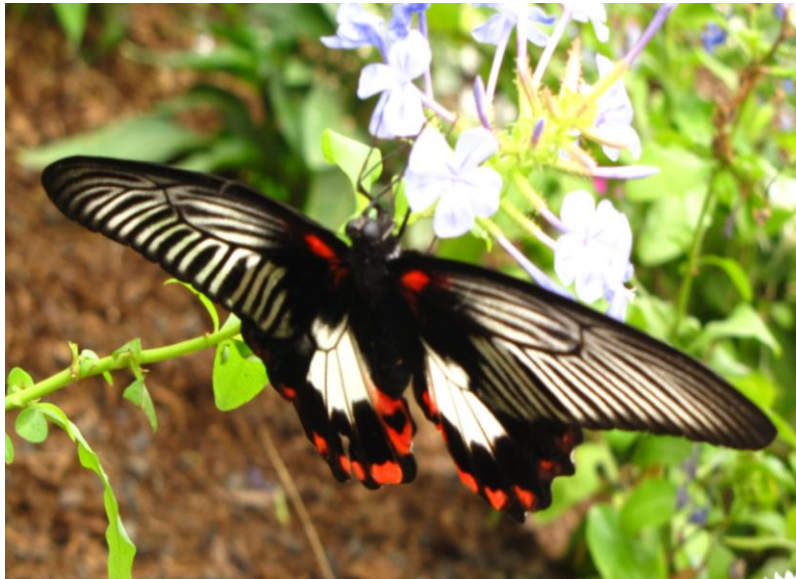
Notice the variety of colors, shapes and sizes of the different species represented in the emergent gallery.



(Photo by Linda Hoyer)

The adult stage of the butterfly and moth is one filled with beauty and challenge. Just after the butterfly emerges from the chrysalis it must have resting time to inflate the wings with a blood supply. The wings must also be given time to dry.





(Photo by Linda Hoyer)

**Butterfly behavior** is more than fluttering in the air. Butterflies must stay warm by absorbing the heat from the sun. It is common to see butterflies “basking” in the sun while stretching their wings and sitting atop a rock or stone path in the garden.

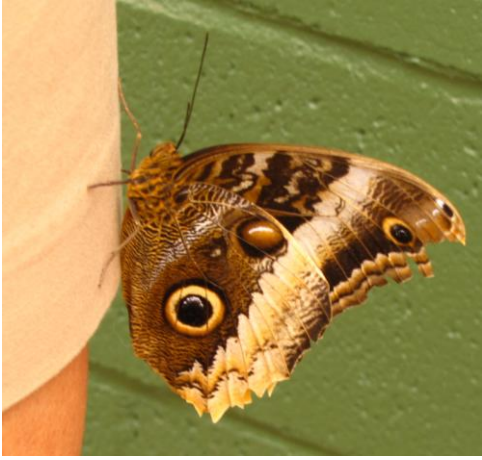
Butterflies spend much of their time in search of food. **Butterfly Wonderland** provides generous resources for the butterflies and moths to locate nourishment. Butterflies are considered to be pollinators. Butterflies like big, colorful flowers with petals that can be used like a landing strip to sit on as they sip up the nectar.



(Photo by Linda Hoyer)

The glass-enclosed atrium at **Butterfly Wonderland** is home to thousands of beautiful plants, trees, butterflies and moths. Visitors can enjoy the environment by strolling through or pausing to rest in seating areas. Butterflies and moths surround the visitors and display their characteristic behaviors as they flutter about to the music in the background.

Do not be surprised if a butterfly decides to walk along with you on your visit through the atrium.



(Photo by Linda Hoyer)

### **Procedures and Pre-Activities:**

1. State the learning objective.
2. Read related literature and discuss the anatomy and life cycle of butterflies and moths. Refer to color handout attached – **Butterfly Life Cycle**.
3. Ask open-ended questions about observations of butterflies and moths in the area.
4. Present the background information. Ask and answer questions and show photos as needed.
5. Read poems and have student memorize one. (See attached.)
6. Hand out the life cycle sheet. Discuss how butterflies emerge from the chrysalis.

**Activity:** Students color the **Emerging from the Chrysalis** sheet.

**Activity:** Students can color and name their own butterfly. (See attached coloring page.) **Materials:** Crayons

**Snack:** Ask students to practice drinking like a butterfly. Use small cups for students to drink juice from a “proboscis” straw. Gummy worms can be caterpillars. **Materials:** Juice, paper cups, straws, gummy worms, napkins.

**Optional Activity:** Review the basic anatomy of the butterfly. Use the **Label the Butterfly** handout for students to complete.

**Reflection and Assessment:**

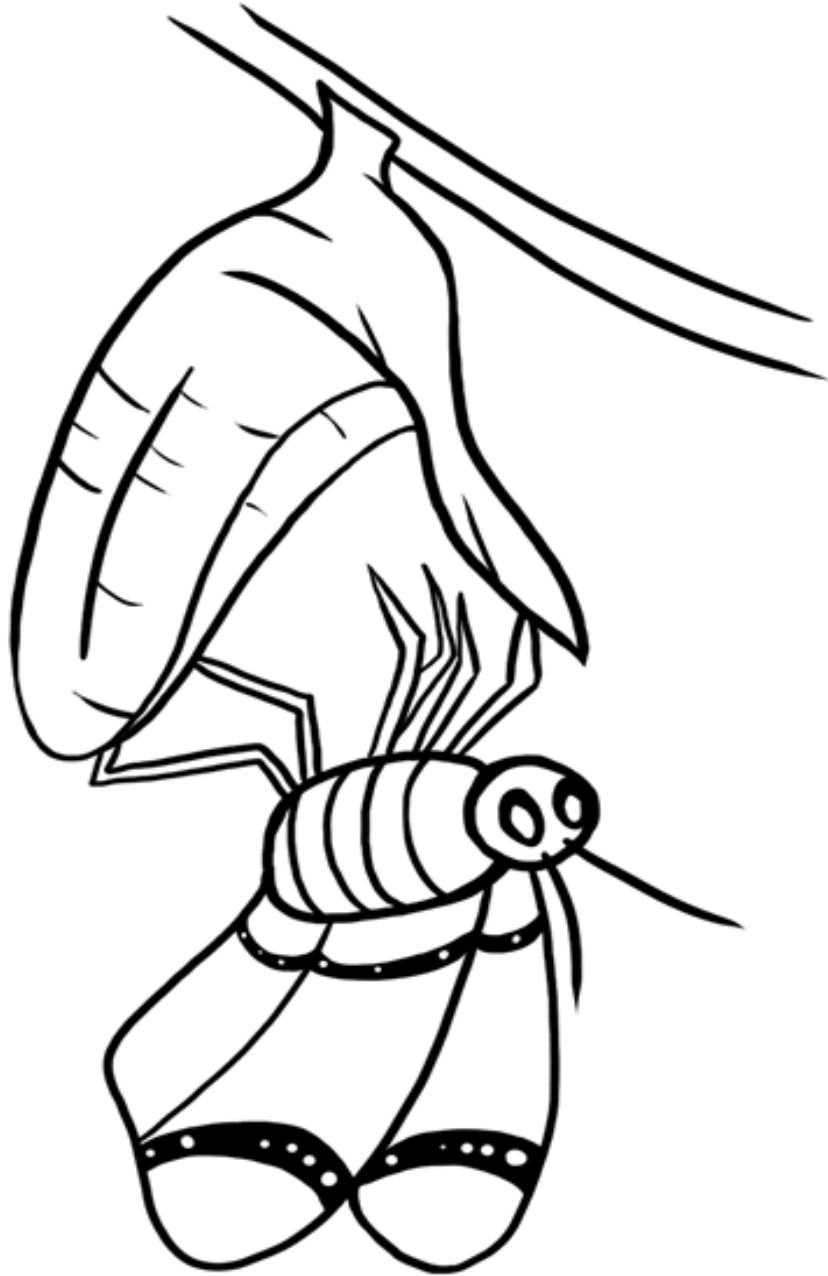
After visiting **Butterfly Wonderland**, discuss the experience in each of the exhibits. Discuss the butterfly emergent gallery and adult butterflies in the atrium.

**Activity:** Life cycle of the butterfly. With assistance, students color and label the life cycle handout.

**Assessment:** Participation, completion and points on activities are per teacher preference.

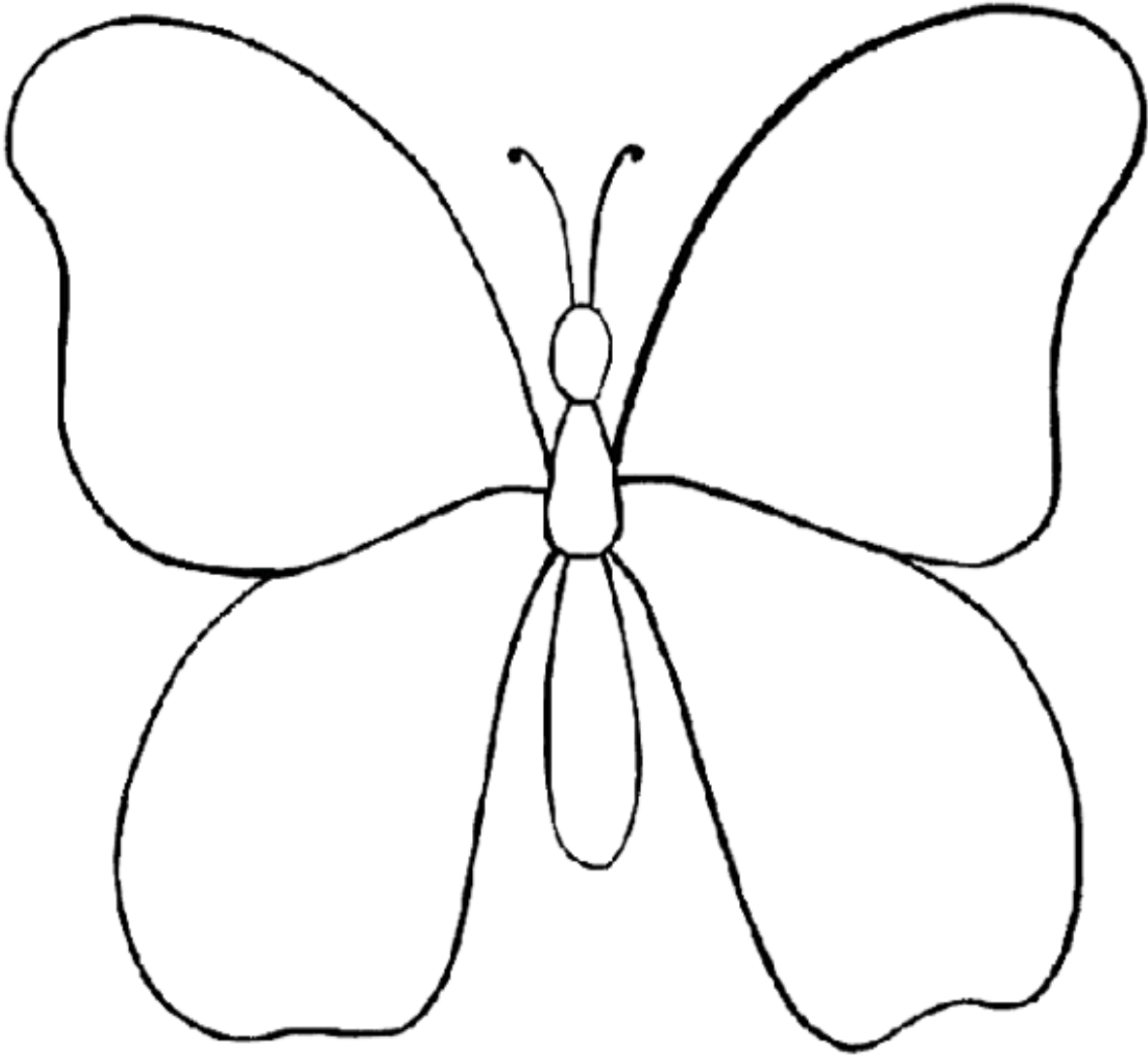
Sources: North American Butterfly Association (NABA); Butterfly Wonderland; Science Kids; Wikipedia; National Wildlife Federation; University of Michigan; University of Tennessee.

***Emerging from the Chrysalis***





# Color the Butterfly

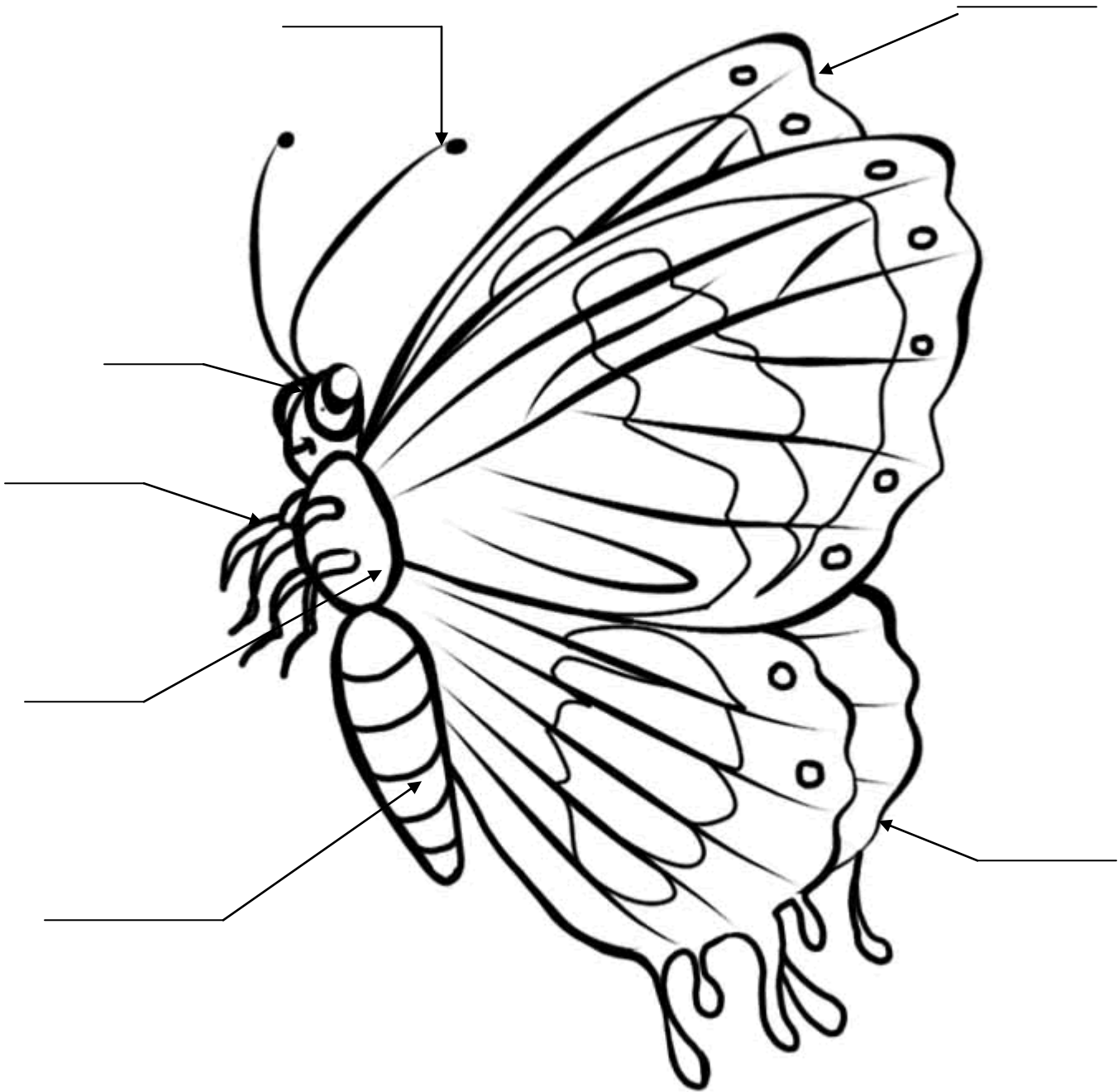


# Butterfly Life Cycle



Butterfly Life Cycle by Laurie Williams

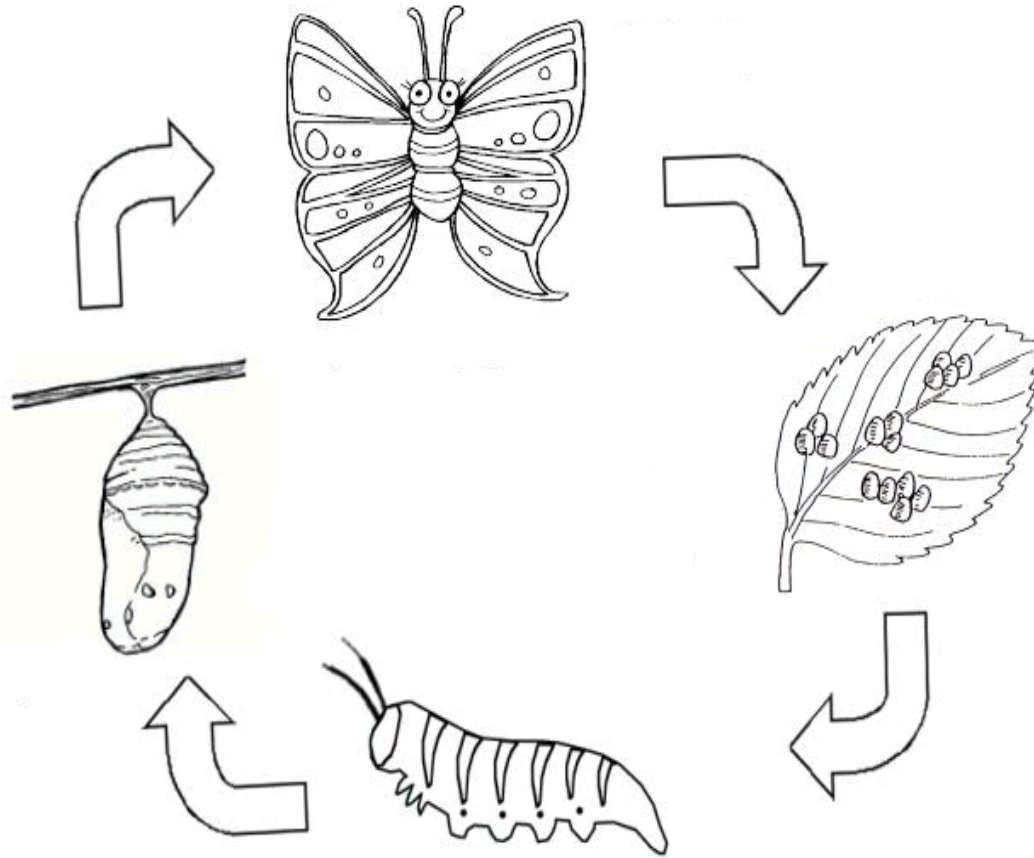
# Label the Butterfly



**Antennae**  
**Eye**  
**Legs**  
**Front wing**

**Abdomen**  
**Thorax**  
**Hind wing**

# Life Cycle of the Butterfly



## **Caterpillar Song**

I started as a tiny egg  
Upon a leaf of green  
And now I stay upon the leaf  
So I will not be seen

Soon I'll build a chrysalis  
Upon a limb up high  
I'll stay a while and then come out  
And be a butterfly

## **The Butterfly song**

(to the tune of "Up on the Housetop")

First comes a butterfly and lays an egg,  
Out comes a caterpillar with many legs,  
Oh see the caterpillar spin and spin,  
A little chrysalis to sleep in.

Oh, oh, oh wait and see  
oh, oh, oh wait and see  
Out of the chrysalis, my, oh my  
out comes a pretty butterfly.

## **Fuzzy Wuzzy Caterpillar**

Fuzzy wuzzy caterpillar  
    in the garden creeps.  
He spins himself a blanket  
    and soon falls fast asleep.

Fuzzy wuzzy caterpillar  
    wakes up by and by  
To find he has wings of beauty,  
    changed to a butterfly.



## **The Fuzzy Caterpillar**

(to the tune of "The Eensy Weensy Spider")

The fuzzy caterpillar  
Curled upon a leaf,  
Spun her little chrysalis  
And then fell asleep.  
While she was sleeping,  
She dreamed that she could fly,  
And later when she woke up  
She was a butterfly!

---

Caterpillar  
Caterpillar  
White, black and yellow  
Caterpillar  
You're such a pretty fellow

## **Caterpillar, Caterpillar**

(to the tune of "Motor Boat, Motor Boat")

Caterpillar, caterpillar long and slow.  
Caterpillar, caterpillar eat and grow.  
Caterpillar, caterpillar close your eyes.  
Caterpillar, caterpillar change your size.  
Caterpillar, caterpillar where'd you go?

---

## **Funny Little Caterpillar**

Funny little caterpillar  
crawling on the ground.  
Funny little caterpillar  
nowhere to be found.  
Though we've looked and looked  
and hunted everywhere around!

source: CanTeach