



## BUTTERFLIES

**Grades:** Recommended for Grades 3-5

**Objectives:**

1. Students will learn is it a Butterfly or a Moth?
2. Students will learn the Stages of Development.
3. Students will learn how a butterfly is Classified as an insect.
4. Students will learn the Importance of butterflies.

### Is it a Butterfly or a Moth?

Butterflies are in the insect Order **Lepidoptera**, and share this Order with moths. There are about 20,000 species of butterflies in the world compared to 160,000 species of moths.

One way to see the difference between butterflies and moths is in the antennae. Most **butterflies** have thin slender filamentous antennae which are club shaped at the end. **Moths** often have comb-like or feathery antennae.

### Stages of Development

The life cycle of Butterflies and moths is completed in four stages; the **egg**, the **larvae (caterpillar)**, the **pupa (chrysalis)**, and the **adult** butterfly. The development from egg to butterfly or moth is referred to as **complete metamorphosis**.

### Butterfly Life Cycle

1. **Eggs** are laid on plants by the adult female butterfly. These plants will then become the food for the hatching caterpillars. Eggs can be laid in spring, summer or fall. This depends on the species of butterfly.
2. The next stage is the **larva**. This is also called a **caterpillar** if the insect is a butterfly or a moth. The job of the caterpillar is to eat and eat and eat. Food eaten at this time is stored and used later as an adult.

3. When the caterpillar is full grown and stops eating, it becomes a pupa. The **pupa** of butterflies is also called a **chrysalis**.

Depending on the species, the pupa may hang down below a branch, be hidden in leaves or buried underground. The pupa of many moths is protected inside a **cocoon** of silk.

It may look like nothing is going on but big changes are happening inside. Special cells that were present in the larva are now growing rapidly. They will become the legs, wings, eyes and other parts of the adult butterfly.

4. The **adult** stage is what most people think of when they think of **butterflies**. The adults have long legs, long antennae, and compound eyes. They can also fly by using their large and colorful wings. The one thing they cannot do is grow.

The adult's job is to mate and lay eggs. Some species of adult butterflies get energy by feeding on nectar from flowers but many species don't feed at all.

Most adult butterflies live only one or two weeks, but some species hibernate during the winter and may live several months

### **Is a Butterfly an Insect?**

Butterflies, like all **insects**, have six jointed legs, three body parts; the head, thorax (chest) and abdomen (tail end), a pair of antennae, compound eyes, and an exoskeleton.

### **The Importance of Butterflies**

**Butterflies** make the world more colorful. ... However, butterflies do more than just paint a pretty picture. They help flowers pollinate, eat plenty of weedy plants and provide a food source for other animals. In addition, their presence or absence can tell us a lot about the local environment

### **Humane Treatment of Butterflies**

Butterfly and moth populations are easily disturbed by the use of pesticides on our lawns and gardens. Pollution and habitat destruction are also dangerous to butterflies and moths. How can you help preserve butterflies in your own backyard? Plant a butterfly garden! Do not use any chemicals on your flowers or lawn. Respect areas where butterflies are found so that they can eat, grow and reproduce.

## **LONG ISLAND AQUARIUM EXPERINCE**

When you visit the Long Island Aquarium you will walk through a warm, colorful butterfly garden maintained by the entomology staff. As many as 1000 butterflies and moths are on display ranging between 30 to 40 different species from all over the world.

Be careful where you step as the delicate butterflies may be in the path. Make sure not to touch any butterflies, moths, plants or feeders. We ask that you be respectful to our butterflies, moths and our staff while visiting.

When entering the Butterfly Room stop and look through the window into the lab.

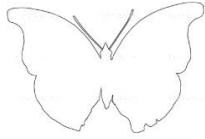
DO NOT MISS the white board displaying a variety of chrysalis.

Identify a moth and a butterfly.

Observe the activity in the room. Are some butterfly species more active than others?

Where are the moths? Are they active?

Do you recognize any butterflies or moths that you may have in your own neighborhood?



Draw Butterfly Wings around the Correct Answer!

1. Butterflies and Moths are \_\_\_\_\_

DELICIOUS

INSECTS

BIRDS

2. Butterflies and Moths are insects, they have \_\_\_\_\_ legs.

MUSCULAR

SIX

TWELVE

3. Butterflies and Moths have different \_\_\_\_\_.

ADDRESSES

ANTENNAE

NUMBER OF LEGS

4. How (approximately) many species of Moths are in the world?

2

5,000

160,000

5. How (approximately) many species of Butterflies are in the world?

20,000

24

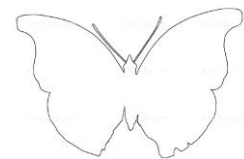
50,000

6. What would you do to attract Butterflies to your garden?

PLANT FLOWERS

USE INSECTICIDES

DIG HOLES



7. What is the second stage of a Butterfly's life cycle?

CATERPILLAR

PUPPY

CHRYSLIS