# Butterflies

## An Informational Power Point

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# Life Cycle of a Butterfly

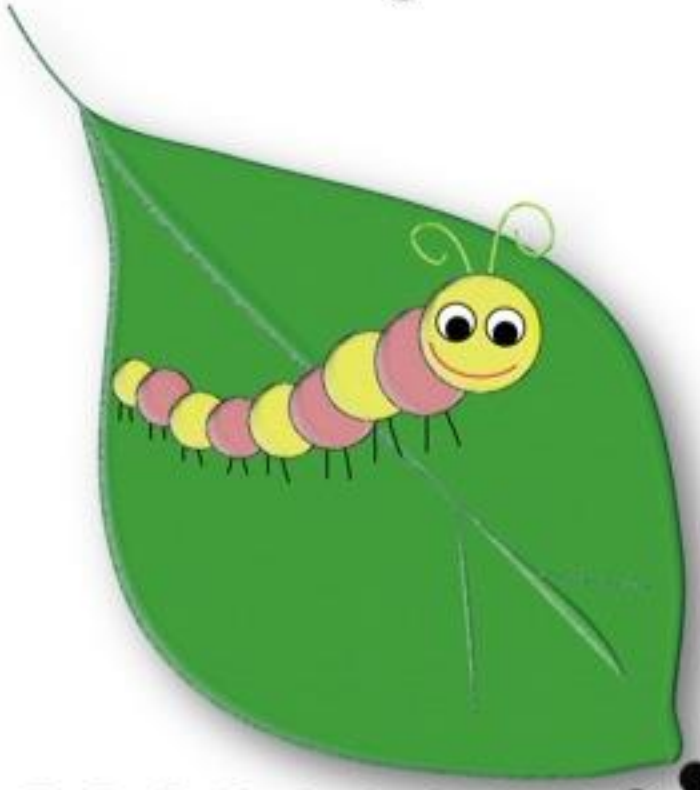
## The Egg Stage

The female adult butterfly will lay, with a special glue from her body, very tiny eggs in sets of 10 to 100 on a leaf. The larva or caterpillar grows inside the eggs. Butterfly eggs usually take between 5 to 10 days to hatch. However if eggs are laid in cold temperatures, then the egg will go through a resting period and hatching may only take place in the spring.

# Life Cycle of a Butterfly

## The Caterpillar Stage

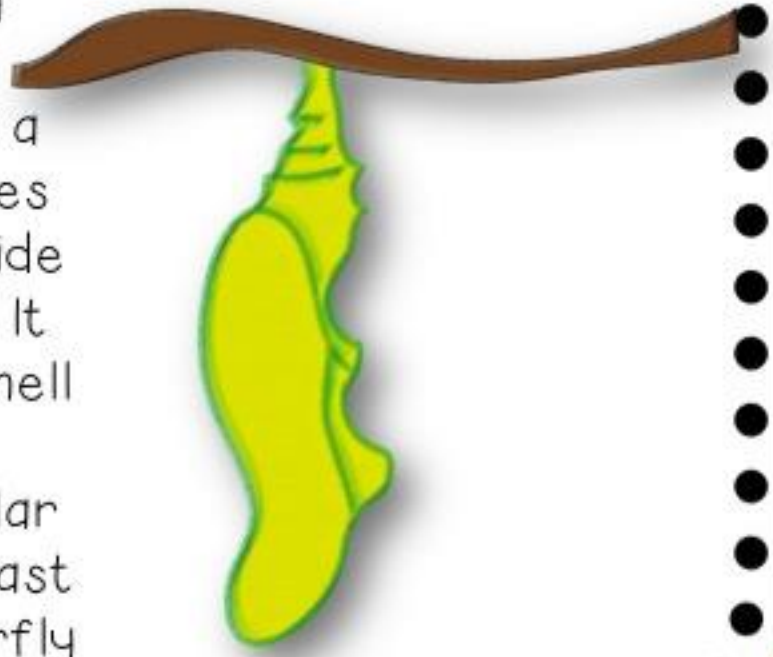
When the caterpillar or larvae is hatched, it looks like a very small worm. The caterpillar immediately begins eating leaves. It eats and eats and eats. It takes 3 weeks for the caterpillar to turn into a chrysalis or pupa.



# Life Cycle of a Butterfly

## The Chrysalis or Pupa Stage

Once the caterpillar is fully grown it goes through a pupation stage and becomes a pupa. The caterpillar attaches itself to a branch, hangs up-side down and sheds its last skin. It then forms a hard stretchy shell called a chrysalis or pupa. During this time, the caterpillar does not eat. This stage will last about 3 weeks. Then a butterfly is born.



# Life Cycle of a Butterfly

## How does a butterfly crack out of the chrysalis or pupa?

The butterfly pumps blood into its thorax and head and causes them to swell. This will cause the shell to crack and the butterfly is able to emerge.

# Life Cycle of a Butterfly

## The Butterfly Stage

When born, the butterfly's wings are wrinkled and wet. The butterfly pumps blood into its wings which causes them to open and expand. This takes only a few hours. Once the wings have dried, the butterfly flies away.

# Life Cycle of a Butterfly

1. Egg

2. Caterpillar

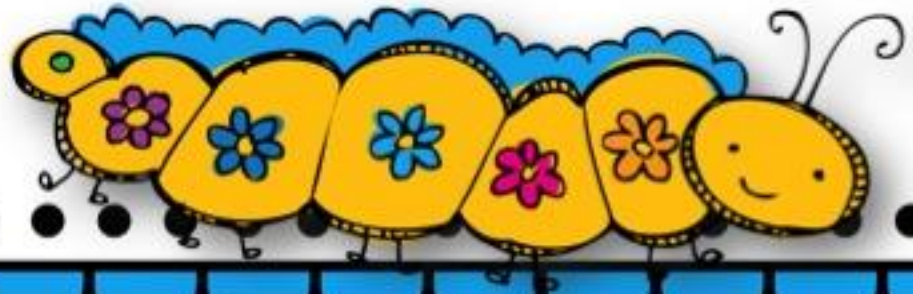
3. Chrysalis or Pupa

4. Butterfly

# Fun Butterfly Facts

How many species of butterflies are on earth?

There are about 24,000 different species of butterflies.



# Fun Butterfly Facts

Do they live everywhere on earth?

No, they can not be found in the Antarctica because it is too cold. Butterflies are cold-blooded, therefore, they cannot regulate their own body temperature. They need for the temperature to be around 85 degrees to fly. If it is too cold, butterflies are unable to fly and are easy prey for their predators. Also, they need to live in warmer climates where flowers are plentiful.

# Fun Butterfly Facts

## How long do butterflies live?

The average life span of a butterfly is a month. However, the small butterflies we see feeding on our flowers will only live about a week. Some tropical butterflies and the monarch butterfly will live about 9 to 11 months.

# Fun Butterfly Facts

<u>What do butterflies eat?</u>

Butterflies consume nectar from flowers, water, water from shallow ponds, and liquids from fruits.

# Fun Butterfly Facts

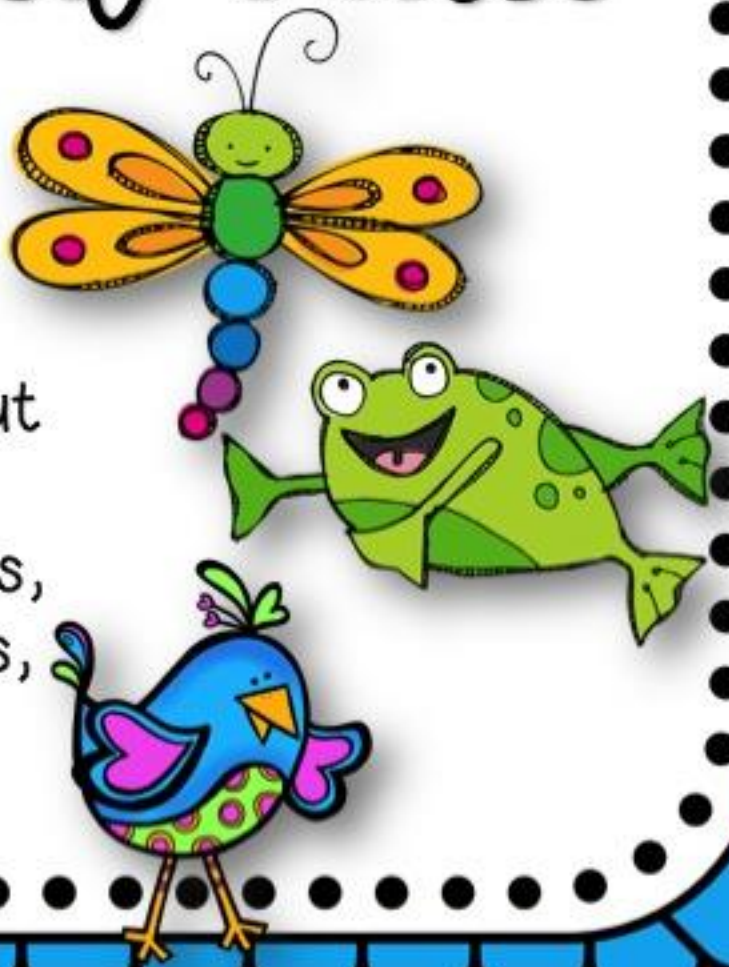
## Can butterflies see?

Yes. They can see within a 10 to 12 foot radius. They are able to see colors and are able to see ultraviolet colors which are not visible to the human eyes. It is said that butterflies can see red, green, and yellow.

# Fun Butterfly Facts

Do butterflies have predators?

Yes, they have many predators. They are (but not limited to) wasps, ants, birds, snakes, toads, rats, lizards, dragonflies, frogs, spiders, and monkeys.



# Fun Butterfly Facts

How do butterflies protect themselves from predators?

Some butterflies camouflage themselves by folding their wings to blend into the background. Others have vibrant colors or patterns which announce their presence. Many of the vibrant colored butterflies have a nasty taste so predators learn to stay away from them.

# Fun Butterfly Facts

## How fast can a butterfly fly?

The top speed known is 12 miles an hour.

# Fun Butterfly Facts

## Do butterflies migrate?

The Monarch Butterfly migrates a great distance every year of about 2,000 miles and lays eggs. Then returns north again in the spring.

# Fun Butterfly Facts

## Do butterflies really have powder on their wings?

If you are able to touch a butterfly, a powder like substance may rub off on your fingers. This powdery substance is dust made up of tiny scales that cover the butterfly's wings. These scales form the varieties of color and patterns of a butterfly.

# Butterflies & Moths

Have you ever wandered if butterflies and moths are the same. In this slide and the next slide, you will learn how they are alike and different.

## Alike

- Butterflies and moths come from the class insecta "Lepidoptera".
- They have two pair of wings which are partly or fully covered with tiny overlapping scales. These scales are "flattened hairs" and give butterflies and moths their variety of colors and patterns.
- Butterflies and moths undergo complete metamorphosis. The metamorphosis begins with laying of eggs, larvae, and pupa.
- They have large eyes and one pair of antennae.
- Butterflies and moths have six legs.
- Butterflies and moths are found all over the world.

# Differences Between Moths and Butterflies

## BUTTERFLIES

- While at rest, butterflies fold their wings vertically up over their backs.
- Butterflies are usually larger and have more color and patterns.
- Butterflies are longer and skinnier with longer legs.
- Butterflies do not have a frenulum.
- Butterflies are primarily diurnal. They fly during the daytime.
- During the pupa stage of the life cycle, the butterfly makes a chrysalis. The chrysalis is hard, smooth and has no silk covering.
- There are fewer butterflies in the world than moths. The number of butterfly species is around 20,000.
- The largest known butterflies are the birdwings. Their wingspan averages 11 inches.
- The smallest known butterflies are the blues. Their wingspans average ¾ to ½ inches.
- A butterfly's antennae are club shaped with a long shaft and a bulb at the end.
- The life span of butterflies can range from a couple of weeks to almost a year.

## MOTHS

- While at rest, moths hold their wings tent like to hide their abdomen.
- Moths are usually smaller with dull colored wings. Moths are shorter and fatter and thicker hair.
- Moths have a frenulum. A frenulum joins the forewing to the hind wings, so the wings can work in unison during flight.
- Moths are generally nocturnal. They fly at night.
- During the pupa stage of the life cycle, the moth makes a cocoon. The cocoon is wrapped in a silk covering.
- There are many more species of moths that butterflies. The number of moth species is around 200,000.
- The largest known moth is the Atlas. Its wingspan averages 12 inches.
- The smallest know moths are from the pygmy moth family. Their wingspans are as small as 3/32 of an inch.
- A moth's antennae are thin all the way to the end and look feathery.
- The lifespan of a moth is usually about a month.

# Resources

http://www.thebutterflysite.com

http://www.sciencekids.co.nz

http://insects.about.com

http://www.learnaboutbutterflies.com

http://www.ask.com/wiki/Butterfly?o=3486&qsrc=999

http://animals.howstuffworks.com

http://www.biokids.umich.edu