

# Moths



## What are we?

Moths are **insects**. They are part of the order **Lepidoptera** which also includes butterflies.

## What do we look like?

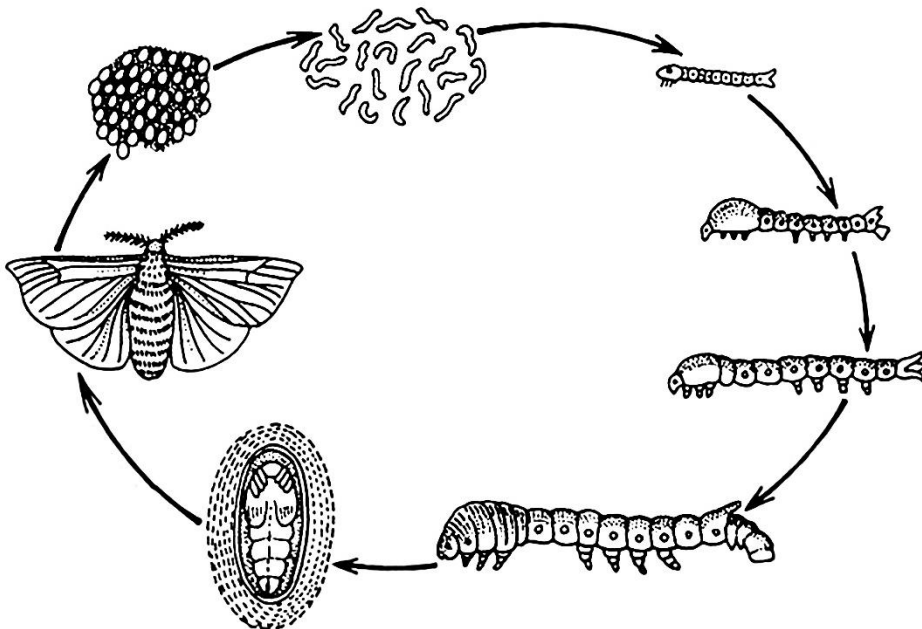
Moths have three body parts – **head, thorax, and abdomen**. They have two **compound eyes, antennae, and a proboscis**. Moths have six legs and **wings covered with scales**. Scales overlap like shingles on a roof.

## How do we grow?

There are four stages the **lifecycle** of a moth: **egg, larva (caterpillar), pupa (cocoon), and adult**.

1. Egg hatches on a leaf of a healthy plant.
2. The larva hatches and immediately begins eating. It eats so much plant matter that it outgrows its skin. The larva sheds its skin several times becoming bigger each time. This is called an **instar**.
3. When the larva is ready, it makes a thick skin which becomes the pupa. Inside of the pupa, the moth is going through a **metamorphosis**, or transformation.
4. The adult moth emerges.

*Label and color the stages in the moth lifecycle.*



## Where do we live?

You can find moths anywhere on earth where there are plants. They can be found by the seaside, in forests, in cities, on mountaintops, and in the arctic. Moths can even be found in your home.

## What do we eat?

Moths do most of their feeding as larvae. Moths can eat live plants or sometimes things that come from plants, like food and clothing found in our homes. Sometimes, moths can be pests. They will eat foods like cereal, oats, and flour. They can also eat our clothing.

## Who are my enemies?

Moths natural enemies are birds, spiders, lizards, cats, dogs, bats, and amphibians. Different predators will attack moths at different times in their life cycle.

## How do I survive?

An **adaptation** is a change to an animal's body that helps it survive in its habitat. Moths have several adaptations that help them survive. Moths have spots on their wings or **false eye spots** and they serve as **camouflage**. Moths are usually not brightly colored, which helps them hide at night and camouflage against the bark of a tree. Moths usually have large, hairy bodies that help them maintain their body temperature and helps reduce the echo that bats use to find their prey.

## Did You Know...

- Moths have been around **190 million years**, evolving long before butterflies.
- Lepidoptera means "scaly wing" in Greek.
- It is thought that there are 16,000 moth species.
- Moths orient themselves using moonlight. Artificial light can confuse them.
- Moths use **mimicry** to protect themselves. They can pretend to be wasps, tarantulas, praying mantis, and even bird droppings to avoid being eaten.
- In some parts of the world moth pupae are eaten by people as an important source of protein.
- Moths outnumber butterflies. For every 1 butterfly there are 9 moths.
- Moths have wide feather-like antennae that help them "smell" over long distances.
- A moth's compound eyes contain **photoreceptors** that allow for a wider view.
- Most moths **do not have** a functioning proboscis. Those that do feed on nectar, and even the tears of birds, crocodiles, and mammals.
- Moths are usually **nocturnal**, or active at night, but some are **diurnal**, or active during daylight.
- Moths are **pollinators** – they help make more plants.
- The smallest moth is the *Stigmella maya* (Mexico). Its wingspan is 1.2 millimeters.
- The largest moth is the white witch moth (Central & South America). Its wingspan is 14 inches.

## Moth and Moon

To make this dreamy moth you will need:

Moth template (attached)

1 white paper plate or sheet of paper

Colored pencils, markers, or crayons – brown, white, cream

Silver glitter (optional)

Glue or tape



