

### Virtual Monarch and Meadow Month Lesson: Monarch Butterfly and Caterpillar Anatomy

In this lesson, participants will learn basic monarch butterfly and caterpillar anatomy and can practice labeling butterfly graphics.

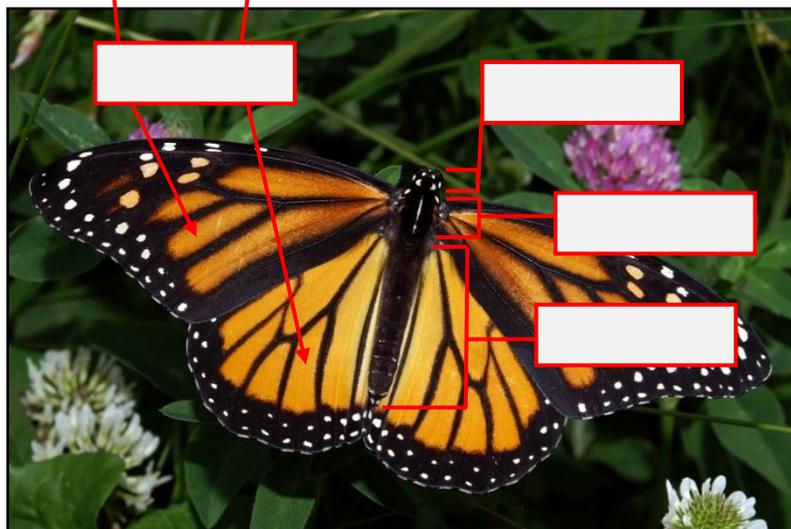
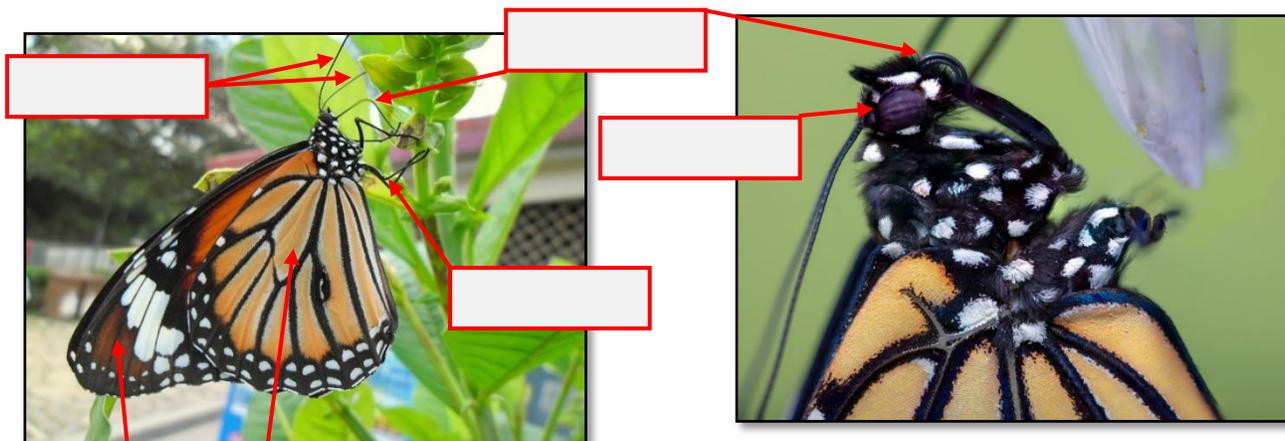
#### Monarch Butterfly Anatomy

Butterflies are insects in the order *Lepidoptera*, which means “scaly wing”; this refers to the thousands of overlapping scales that not only give the butterflies their iconic colors, but also aid in flight. When you hear the word **insect**, you should automatically think 6 legs and 3 body parts; this rule helps you separate insects from similar animals like spiders, which have 8 legs and 2 body parts. When we talk about body parts we mean that they have a **head** (with **eyes**, **antennae**, and their **mouthparts**), then a **thorax** (where all of their **legs** and **wings** attach), and finally an **abdomen** (usually the largest segment, where most of their organs are). A butterfly’s mouth is called a **proboscis**, which is a tube-like structure that is normally curled up against the front of the butterfly’s face, but is extended into flowers’ nectar well to suck up nutrients. Monarchs are especially famous for their migration habits, so we can’t forget to mention their 4 brightly colored **wings**!

**Can you label these images with the monarch butterfly’s body parts? Here’s a word bank!**

Head	Wings	Thorax	Abdomen
Antenna	Legs	Eyes	Proboscis

**Scroll to Page 2 for the answers!**



### Monarch Caterpillar Anatomy

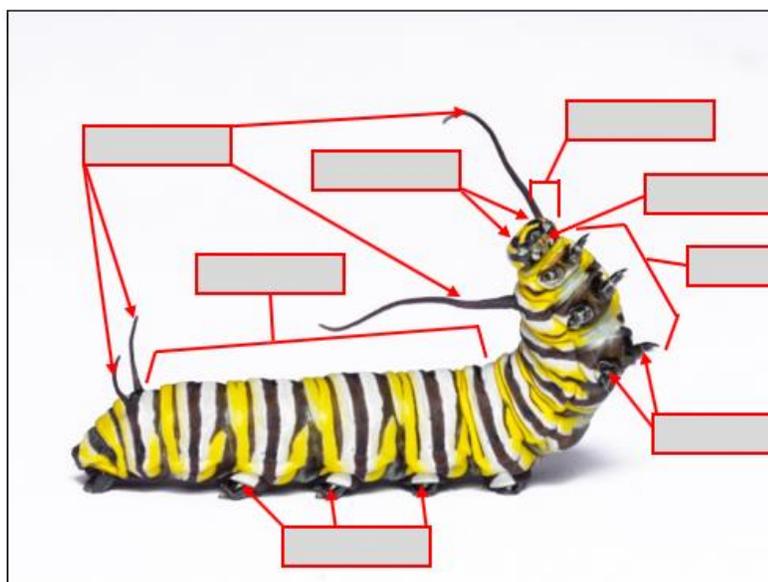
The monarch butterfly caterpillar is fantastical even before it becomes a chrysalis and transforms its long, squishy body into the graceful winged adult that we love to watch flitting from flower to flower. Caterpillars are eating machines, so their soft bodies are basically one giant digestive system, but they still retain the 3 separate body segments that make an insect an insect: a **head** (with all accompanying parts like **eyes**, very small **antennae**, and **mouth**), a **thorax**, and an **abdomen** are all present, but the distinction between the thorax and abdomen is harder to spot. If you look at the caterpillar of any moth or butterfly, you'll very quickly notice that they seem to defy to rule about insects having no more or less than 6 legs...they seem to have 16! Caterpillars actually have 3 pairs of **true legs** and 5 pairs of **prolegs**. The true legs have tiny hooks at the end and are used for grasping the milkweed plant, while the prolegs are covered in microscopic hooks that act like Velcro to hold the caterpillar in place as it gradually moves forward, segment by segment. What appears to be long front and rear antennae, are called **tentacles**, which help in sensory perception and predator defense.

**Discussion + Home Exploration:** For more info about insects, [check out this video!](#)

- How are butterflies similar to other insects? How are they different?
- Do you have any similar body parts to a butterfly?
- Can you see butterflies around where you live? How many different types can you find in just your area?
- How do butterfly wings compare to the wings of other insects?

**Use this word back to fill in the parts of this monarch butterfly caterpillar below!**

Head	True legs	Thorax	Abdomen
Mouth	Prolegs	Eyes	Tentacles



## Answer Key

### Butterfly and Caterpillar Anatomy

