

Name: _____

Date: _____

Life Cycle of a Butterfly

Life cycle refers to the stages of development, growth and reproduction that a living thing goes through. The butterfly's life cycle is made up of four stages: egg, larva, pupa and adult. This process of development is called metamorphosis.

The First Stage: The Egg

A butterfly starts life as a very small, round, oval or cylindrical egg. Female butterflies lay eggs on leaves of a particular plant called a host plant. Each species of butterfly has its own host plant that, when eaten by its caterpillar, will enable the caterpillar to grow and thrive. For example, female monarch butterflies will lay their eggs only on milkweed because milkweed is the only food that monarch butterfly caterpillar will eat.

To the human eye, eggs appear to be nothing more than small dots however the eggs vary quite a lot in their shape, surface decoration, colour and size. Some butterfly eggs may be round, some oval and some may be ribbed while others may have other features. The egg shape depends on the type of butterfly that laid the egg.

The egg stage lasts a few days in most butterflies. Caterpillars grow inside the eggs and hatch after a few days.

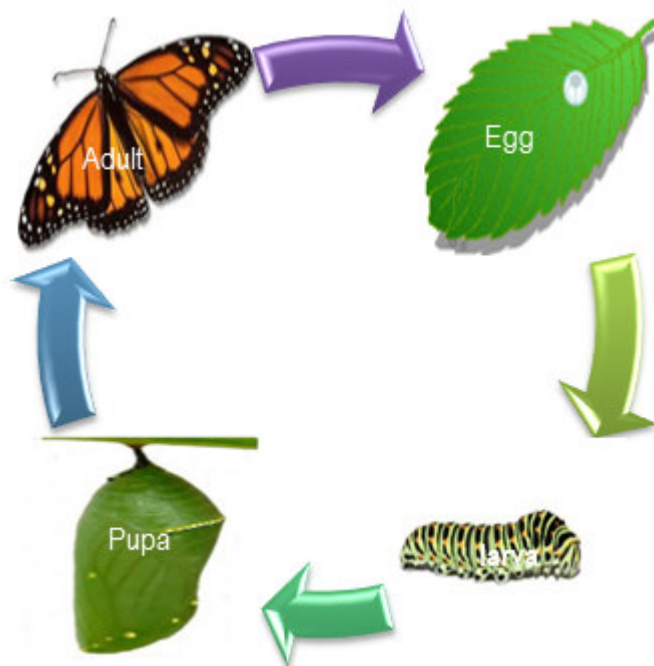
The Second Stage: The Larva (Caterpillar)

The caterpillar (or larva) is the long, worm-like stage of the butterfly or moth. It often has an interesting pattern of stripes or patches, and it may have spine-like hairs. It is the feeding and growth stage. Caterpillars spend their whole life eating and growing. The first thing a caterpillar eats is its eggshell and then starts to eat the leaves of its host plant. Since they are tiny and cannot travel to a new plant, the caterpillar needs to hatch on the kind of leaf it wants to eat.

When a caterpillar is born, they are extremely small. When they start eating, they instantly start growing and expanding. As the caterpillar grows it sheds its skins four or five times. Caterpillars eat approximately eight times their body mass each day.

The caterpillar spins a silk thread as it moves to help keep it attached to the leaves. After a few weeks the caterpillar spins a silk "button" on the underside of a leaf, attaches itself to this with fine hooks and hangs head down in a "J" shape.

The pupa is formed in the body of the caterpillar.



The Third Stage: Pupa (Chrysalis)

The chrysalis (or pupa) is the transformation stage within which the caterpillar tissues are broken down and the adult insect's structures are formed. Within the chrysalis the old body parts of the caterpillar are undergoing a remarkable transformation, called 'metamorphosis,' to become the beautiful parts that make up the butterfly that will emerge. Tissue, limbs and organs of a caterpillar have all been changed by the time the pupa is finished, and is now ready for the final stage of a butterfly's life cycle.

The Fourth Stage: Adult Butterfly

A fully developed butterfly escapes from its chrysalis shell by pumping blood into its head and thorax which swell and crack the shell. The head and thorax are the first structures to emerge. Next, the butterfly pushes its legs out and pulls its swollen abdomen and compressed wings. The first evidence that a butterfly is ready to emerge is a transparency of the pupa case revealing the colors of the wings beneath. When the butterfly first emerges from the chrysalis, both of the wings are soft, wet and folded against its body. The butterfly hangs from the pupa case for an hour or so to let its wings straighten and dry out. Once the butterfly has done this and warmed itself in the sun it is ready to fly off and feed and mate, so continuing the on-going lifecycle.

Life Cycle of a Butterfly

1. What are the four stages in the life cycle of a butterfly?

2. Where do the female butterfly lay eggs?

3. Why do the female butterfly lay eggs on leaves of a particular plant?

4. Which is the feeding and growth stage in a butterfly's life cycle?

5. Which is the transformation stage in a butterfly's life cycle?

6. What is the state of wings when the butterfly first emerges from the chrysalis?

Life Cycle of a Butterfly- ANSWER KEY

1. What are the four stages in the life cycle of a butterfly?

The four stages in the life cycle of a butterfly are egg, larva, pupa and adult.

2. Where do the female butterfly lay eggs?

Female butterflies lay eggs on leaves of a particular plant called a host plant.

3. Why do the female butterfly lay eggs on leaves of a particular plant?

The female butterfly lay eggs on leaves of a particular plant for its caterpillar to eat and grow. The caterpillar needs to hatch on the kind of leaf it wants to eat.

4. Which is the feeding and growth stage in a butterfly's life cycle?

The second stage i.e. the larva or caterpillar is the feeding and growth stage in a butterfly's life cycle.

5. Which is the transformation stage in a butterfly's life cycle?

The chrysalis (or pupa) is the transformation stage in a butterfly's life cycle.

6. What is the state of wings when the butterfly first emerges from the chrysalis?

When the butterfly first emerges from the chrysalis, both of the wings are soft, wet and folded against its body.