

LIFE CYCLE WHEELS

INSTRUCTIONS

To create your Life Cycle Wheel, print and cut out the top and bottom pieces (above). Use a small brad to pin the top piece onto the bottom piece by poking through the center circle. Use this Life Cycle Wheel to explore Fred & Dorothy Fichter Butterflies Are Blooming at Frederik Meijer Gardens & Sculpture Park! How many butterflies, caterpillars and chrysalides can you find?

EXPLORE FURTHER

Share these incredible facts about butterfly life cycles as you create your Life Cycle Wheels. Then, learn more as you explore the lives of butterflies at Frederik Meijer Gardens & Sculpture Park!



EGGS

- Butterfly eggs take 3-10 days to hatch into caterpillars.
- They are often laid on the underside of a leaf for better protection against predators.
- Many species of butterflies only lay their eggs on specific 'host' plants. For example, Monarch butterflies only lay their eggs on milkweed. (Look for milkweed plants in the Grace Jarecki Seasonal Display Greenhouse as you visit Butterflies are Blooming!)
- Some species of butterfly, such as the Monarch, lay their eggs singly. Others lay their eggs in large clusters.
- A female can lay up to 500 eggs, but an average is only 50.
- Every stage of a butterfly's life cycle provides food for other insects, birds and animals.
- *If 200 eggs are laid, only 100 will likely hatch.*



CATERPILLARS

- The caterpillar stage is generally two weeks long.
- A caterpillar eats its weight in leaves every day and can gain from 2,000 to 3,000 times its weight during this stage. (In the Grace Jarecki Seasonal Display Greenhouse, you may be able to spot caterpillars of several different sizes!)
- Caterpillars have different adaptations for avoiding predators. Some caterpillars are poisonous or contain irritating hairs. Others are well camouflaged. Many avoid predators by sleeping during the day and eating at night.
- *Out of the 100 caterpillars that hatch from eggs, only 15 will form a chrysalis.*



CHRYSALIS

- Inside the chrysalis, a caterpillar transforms into an adult butterfly. This process takes about 10 days.
- Butterflies are very vulnerable at this stage because they cannot move, so many chrysalides are camouflaged to look like leaves, bird droppings or droplets of water. (During your visit, take a look inside the Butterfly Bungalow in the Lena Meijer Tropical Conservatory to see a variety of chrysalides!)
- The chrysalis is attached to the plant with a silk pad that the caterpillar produces.
- Just before emergence, the chrysalis turns transparent and may move.
- *Out of the 15 chrysalides formed, about 12 will emerge as adults.*



ADULT BUTTERFLY

- There are more than 20,000 species of butterflies.
- Most adult butterflies feed on nectar, but others may feed on other kinds of liquids, including juices from rotting fruit, tree sap, and even dead animal carcasses.
- Adult butterflies weigh less than an ounce. (A Monarch weighs less than a paper clip!)
- The adult lives an average of two weeks.
- *Of the 12 butterflies that emerge, only 2 or 3 will live long enough to mate and lay eggs.*

STAGE ONE: under a leaf

EGG

Monarch butterflies 'glue' their tiny eggs to the undersides of milkweed leaves. Caterpillars hatch from the egg after 3-10 days. Look at the many types of leaves! Can you find the milkweed plants? A Monarch butterfly can!

CATERPILLAR

After they hatch, caterpillars are very hungry. A caterpillar eats its weight in leaves every day! Monarch caterpillars only eat milkweed; this makes them distasteful to predators. Can you spot any hungry caterpillars on the milkweed plants?

STAGE TWO: on milkweed

CHRYSALIS

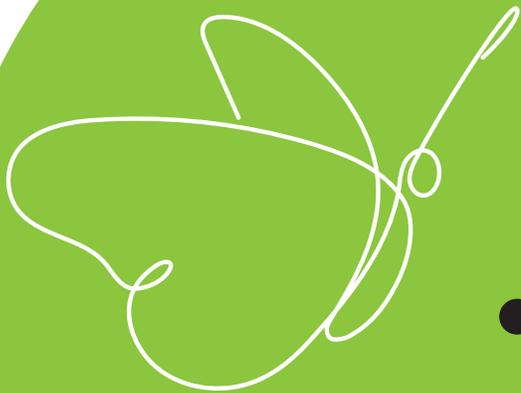
Next, the caterpillar forms a chrysalis. This stage lasts about 10 days. Look for Monarch chrysalides in the Seasonal Display Greenhouse and discover other species in the Butterfly Bungalow in the Tropical Conservatory. Do all the chrysalides look the same? Can you see any butterflies emerging?

ADULT BUTTERFLY

Our Tropical Conservatory is full of adult butterflies! The average butterfly lives for about two weeks and lays eggs if she can find the proper host plant that the caterpillars will eat. Look around. Which butterfly is your favorite?

STAGE FOUR: in the tropical conservatory

STAGE THREE: hanging from plants



LOOK...

All butterflies go through a "complete metamorphosis" with four distinct stages. To begin, turn the wheel to "Stage One." During your field trip, start in the Seasonal Display Greenhouse and begin exploring the butterfly's lifecycle.