

MONARCH BUTTERFLY & LIFE CYCLE

Lesson developed by: Judy Hirschman, Summit County Master Gardener Volunteer



Overview: This information sheet provides three activities for staff to use with senior residents. Based on the skill level of the residents, select which activities may be appropriate. They could be used as a cart activity or with small groups.

The monarch butterfly: Butterflies are beautiful, colorful, and magical insects. Monarch butterflies are one of the most recognizable types of butterflies with their vivid orange and black coloring. Monarchs are also special. They have a long migration annually. The adults spend the winter in Central Mexico. Each spring, over the course of four generations, the adults fly 2,000 miles to reach parts of Canada and the United State. Many arrive in Ohio in the early summer. Here, they eat and reproduce. The fourth generation flies back to Mexico in the late summer/early fall.

A butterfly changes completely over its lifetime. The **egg** is a little smaller than a grain of rice. The egg hatches into a **caterpillar** that is about the shape of elbow macaroni. The caterpillar is white, black, and yellow striped. After the caterpillar eats and grows (shedding its skin 4 times in the process), it forms a **chrysalis** shaped like seashell pasta. The chrysalis is turquoise with gold flecks and resembles a beautiful

bead. While in the protective shell, the insect decomposes into gel and turns into a completely different form. The **butterfly** emerges, dries its wings, and now resembles bowtie pasta. The entire process is called **complete metamorphosis**.

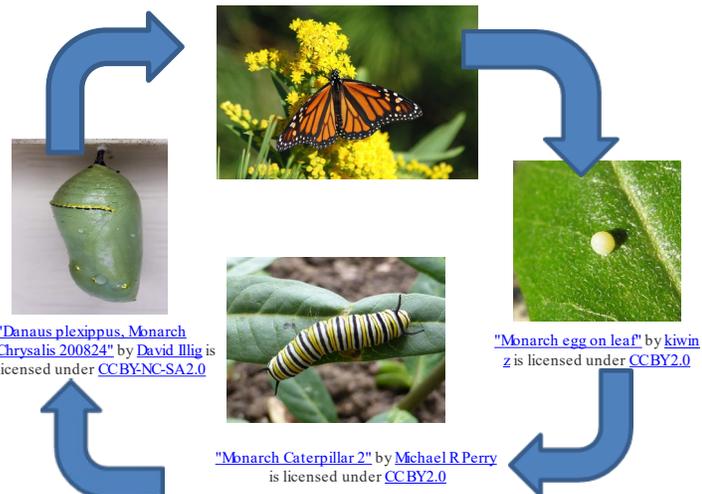
Because monarch caterpillars eat milkweed, which contains toxins called cardiac glycosides, they and the adults are foul-tasting and shunned by birds and other predators. The monarch is the longest-lived butterfly found in Ohio, with some adults surviving more than ten months.

Monarch butterflies communicate with scents and colors. The males attract females to mate by releasing chemicals from scent glands on their hind wings. Monarchs signal to other animals that they are poisonous by having bright orange wings. The bright colors serve as a warning that predators should attack at their own risk.

Lifecycle activity:

Materials needed: rice grains, elbow macaroni, seashell pasta, bowtie pasta – all uncooked; a paper plate

Activity: Paste the pasta shapes in a circle with arrows, with the rice and pasta shapes as noted above. Label each stage.



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Butterfly mask or coloring page:

There are many free monarch butterfly printable images on azcoloring.com.

The adult monarch is orange and black, though the butterfly may be colored as wished. To make a mask, cut out the image, attach a cardstock band to each side of the mask and tie around your head.

Word find:

The Word Find puzzle can be located at <http://greatlittleminds.com/pdfs/word-search/word-search-butterfly.pdf>. It contains many of the terms we have mentioned. See them listed at the bottom of the image. See how many of them you can find hiding in the puzzle and circle them.

Here are some definitions to remember:

- *Chrysalis* – solid structure that protects resting caterpillar (moths create a fiber structure that is called a cocoon)
- *Larva* – caterpillar or wormlike stage of butterfly
- *Migrate* – move from one region to another. The monarch flies over 2,000 miles from Ohio to Mexico
- *Nectar* – sweet liquid in center of a flower that provides food for adult butterfly
- *Pupa* – form of the butterfly

QUESTIONS

- Do you remember seeing many butterflies when you were young? In your own yard after you grew up?
- What kinds of flowers do you remember seeing them on?
- How many kinds of butterflies do you think have been recorded in Ohio? 137, per the Ohio Department of Natural Resources!

Conclusion: After learning about butterflies, you may be interested in creating a pollinator garden at your facility. Contact Summit County Master Gardeners at The noted email address for more information regarding appropriate plants.

Contact information:

If you have any questions about this activity, please email mgsummitcounty@gmail.com.

We hope you benefitted from this activity. Please let us know if you utilized this with a quick email to the above address. Please send your name, facility name, number of participants involved in this activity, and your feedback for improvement so we can measure our impact and improve this product. Thank you

Photo resources:

Ohio Department of Natural Resources, Pinterest

Other monarch resource sites:

- www.MonarchWatch.org
- <https://ohiodnr.gov/static/documents/wildlife/backyard-wildlife/Butterflies>
- <https://www.nwf.org/Educational-Resources/Wildlife-Guide/Invertebrates/Monarch-Butterfly>



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