

NATURE ACTIVITY

MONARCH MIGRATION



Kids will learn about habitats by studying the beautiful monarch butterfly. They will also explore ways they can help preserve and create new habitats for our winged friends by planting milkweed from seed to share with friends, family, and community members to help monarch populations.

WHAT YOU'LL NEED:

- ☐ Seeds for native milkweed species
- ☐ Small paper cartons to use as growing containers
- ☐ Potting soil

TIME: 6-12 weeks

INTRODUCTION:

Monarch butterflies are amazing creatures. These strikingly colored, orange, white and black butterflies migrate up to three thousand miles every year. In the spring, successive generations fly from southern locations in California and Mexico up to areas throughout North America as far north as Canada. In the fall, they fly back to southern regions where they spend the winter roosting in areas where weather conditions are cool but remain above freezing.

Although the same butterflies that left in the spring are not the ones that return in the fall (each butterfly lives about 30 days from egg to adult except for the last generation that completes the trip south and overwinters), that's still quite a journey for an insect that weighs on average only 2/100 of an ounce! Monarchs that spend the summers west of the Rocky Mountains overwinter in groves of trees along the central and southern California coast, while those from eastern North America journey all the way down to the forests of central Mexico each year.

Why is milkweed so important? Like all butterflies and moths, monarchs go through a complete metamorphosis in the course of their life cycle. A monarch begins its life cycle as an egg laid on a milkweed plant, which hatches into an

eye-catching caterpillar adorned with bright yellow, black, and white stripes. This caterpillar feeds exclusively on milkweed plants before changing into a chrysalis, to emerge 10-14 days later as an adult butterfly. Without milkweed plants for nourishment the caterpillar stage can't survive, and there will be no adult butterflies. While the adult butterflies feed on the nectar from milkweed flowers, they also feed on nectar from a wide variety of other flowers, which provides them with energy they need to fuel their long migratory flights.



A monarch butterfly garden created with repurposed cartons at Idlewild Elementary, TN.

Follow the Nature Activity instructions on next sheet.



INSTRUCTIONS:

STEP 1

Learn about the migration patterns of the monarch butterfly and ask kids to brainstorm ways to help the monarchs throughout their life cycle. There are many possible ways to help; however, since milkweed is such an important part of their habitat and life cycle, protecting existing milkweed plants and planting more are two important ways to help.

STEP 2

Obtain supplies for growing your own native milkweed plants. You will need milkweed seeds, planting containers like small paper cartons (wash thoroughly and let them dry, then drill holes in the bottom for drainage) and potting soil.

There are over 100 native milkweed species that thrive in a variety of climates and growing conditions. Two types of milkweed that are easy to grow from seed are:

- **Butterfly Weed (*Asclepias tuberosa*).** This easy-care perennial will liven up your garden with large, flat-topped clusters of bright orange flowers all summer long on 1' to 3' tall plants. All it asks is full sun and well-drained soil. Butterfly weed is adapted to USDA Zones 4-9.
- **Swamp Milkweed (*Asclepias incarnata*)** grows naturally in swamps, but it also does well in garden settings in full sun, adapting well to soils with average moisture. A native of the eastern U.S., this milkweed is a robust plant reaching 3' to 5' tall and producing clusters of fragrant pink or mauve flowers through the summer. Swamp milkweed is adapted to USDA Zones 3-9.

STEP 3

Plant your seeds.* Have kids fill the cartons with moistened potting soil. Moisten the soil in a bucket or bowl before placing it in your container. You want the soil to feel like a moist sponge, but you do not want it to be so wet that water can be squeezed out of it. You may need to alternate adding water and soil until the optimum moisture is achieved.

Depending on the size of your containers, plant 3 to 5 seeds per pot. You will most likely not get a 100%

germination rate, so you will want to plant more seeds than needed and then later thin them back to 1 or 2 plants per pot if needed. Plant seeds about 1/8" deep. Do not plant the seeds too deep; however, make sure they are covered completely with soil.

*Special Consideration: Some milkweed species need to be exposed to a cold period before they will germinate. Check to see if the species you have selected requires this treatment before planting.

STEP 4

Place your plants in a sunny location and away from small children and pets who may eat them. Milkweed leaves are poisonous so you want to make sure students know not to eat any part of the plant and also know to wash their hands after handling.

If growing inside, locate a window in your indoor space that provides the most sunlight available to you, optimally 8 or more hours. You can also grow them under a simple shop light or a grow light system.

STEP 5

Water new plants as needed. If the leaves turn pale green or yellow, give the plants some organic liquid fertilizer when watering, being sure to follow the manufacturer's instructions.

STEP 6

Once the plants are a few inches tall (approximately 4 to 6 weeks), you can replant into a large container and begin to harden them off to move them outside. To harden off your plants, move them outdoors for a few hours at a time, starting first in shaded locations and slowly moving to sunnier areas. Increase the amount of time they spend outdoors each day by a couple of hours.

STEP 7

Plant in a sunny location and watch for monarchs to visit!

