



MONARCH MIGRATION

This lesson plan was created by Kate McKenna as part of the Acadia Teacher Fellows (ATF) program. ATFs created lesson plans are created by educators for educators. Any books or links suggested in this curriculum are not an endorsement by the National Park Service.

Title	MONARCH MIGRATION
Grade Span	K-2
Time Span	Fall 1 hour today, ongoing discussion throughout the year on phenology of plants and migration patterns of monarch butterflies.
Standards	K-ESS3-1: Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live. CCSS: RL.K.10: Actively engage in group reading activities with purpose and understanding W.K.2: Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic. Leave No Trace Standard 1: Leave what you find.
Focus Question	<ul style="list-style-type: none"> • What do plants and animals need to survive? • Where do plants and animals live?
Overview	Students and teacher will read a book about the milkweed plant and monarch butterflies. A local Master Gardener will show students how to plant the seeds and what the growing process will look like. Students will learn about the second phase of this project, to commence in the spring. Students will search for good nectar plants on school grounds.
Objectives	<ul style="list-style-type: none"> • Students will be able to define a butterfly's needs (type of food and water). • Students will be able to describe a Monarch Butterfly's habitat. • Students will be able to sequence the events in a plant's life cycle.
Materials Needed	<ul style="list-style-type: none"> • Milkweed Seed Kit (Available for free to school groups from monarchwatch.org) • Plant development cards, laminated (1 set per group of 2-4 students) • Master Gardener from Charlotte Rhoades Garden or UMaine Cooperative Extension • Magnifying Lenses • Trade Book: <i>Monarchs and Milkweed: A Migrating Butterfly, a Poisonous Plant, and Their Remarkable Story of Coevolution</i>
Vocabulary	Monarch – species of butterfly known for its orange and black coloration migration Master Gardener – person with passion for gardening and hours of experience Migration – movement of groups in order to find more food or other resources
Teacher Prep	<ul style="list-style-type: none"> • https://extension.umaine.edu/signs-of-the-seasons/indicator-species/monarch/ • https://journeynorth.org/

Commented [1]: Need Definitions

Outdoor Classroom Lesson Plan

National Park Service
U.S. Department of the Interior
Acadia National Park, Maine



Background

Students and teacher will read a book about the milkweed plant and monarch butterflies. A local Master Gardener will show students how to plant the seeds and what the growing process will look like. Students will learn about the second phase of this project, to commence in the spring. Students will search for good nectar plants on school grounds.

Commented [2]: Maybe some background information for teachers? Not sure this works.....



Procedure	<p>Engage:</p> <ul style="list-style-type: none"> • Prior to this activity, the teacher should introduce the students to their special guest – the Master Gardener. The students should be familiar with butterflies and plants. • The teacher should take the students outside to an appropriate gathering place (safe from vehicles and comfortable for sitting). The students will sit as the teacher reads the book, <i>Monarchs and Milkweed</i>. The teacher should take time to highlight the life cycle of milkweed. (The Master Gardener may be willing to read the book to the students but does not have to). <p>Explore:</p> <ol style="list-style-type: none"> 1. The teacher will then separate students into groups of 2-4. Each group will receive a set of life cycle cards to sequence as a group. The students should put the pictures in order from seed to plant. Remind the students of the proper procedure for group work: talking about decision-making, kindness, taking turns, listening, etc. 2. The Master Gardener will discuss the life cycle of milkweed and why we are planting it in this place, at this time. (The milkweed seeds do better if they are planted in the fall and allowed to freeze over the winter, before sprouting in the spring). The students will then help to plant milkweed in an appropriate location. This may be in an existing pollinator garden, along a wood line, or even in pots which are movable as deemed necessary. (Prior contact with the Master Gardener will help the teacher make the decision of where to plant the milkweed. Be sure to consult the appropriate staff/faculty at your school before planting permanent species). 3. The teacher will gather the students back together on the grass. The Master Gardener will explain other types of plants that butterflies like to gather nectar from (and why). The teacher and Master Gardener will take the students on a walkabout of the school grounds, identifying other nectar-producing plants on your location which would make this a good habitat for butterflies. Before embarking on your walkabout, remind the students that while nature is super exciting to explore, we need to be friendly to our environment – that means we don't pick the flowers or plants we see, because it hurts them and the animals they provide food for. Provide students with magnifying glasses through which to examine the plants they come across. This will give the students the opportunity to explore their schoolyard. <p>Explanation:</p> <p>Hold a classroom discussion after returning to your "home base." Ask the students to make connections between the milkweed plant and the Monarch Butterfly.</p> <ul style="list-style-type: none"> • <i>Would our school yard be a good place for a Monarch Butterfly to live? Why or why not?</i> • <i>What are some things a Monarch Butterfly needs to survive?</i> <ul style="list-style-type: none"> ○ <i>Where would the butterfly find these things?</i> ○ <i>How can we help these butterflies? Does anything we do make it harder for them to survive?</i>
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Extension:

Potential for extension: have students choose one of these species and draw a picture of it in their journals. Have the students write or dictate a sentence, describing what they learned about this plant from the Master Gardener. There is field trip potential associated with this interaction, as the Charlotte Rhoades Garden works with schools to get students to their gardens on field trips.

Throughout the school year, the students will continue learning about butterflies and will hatch Monarch butterflies in the spring. Right now, the season is getting ready to change and the weather will get cooler. The butterflies wouldn't survive in the cold, so they are getting ready to migrate to a warmer climate and will come back in the spring.

Extension opportunity: participate in the Symbolic Migration project, as students create butterflies which are mailed to Mexico during the fall migration and will be mailed back in the spring. Details can be found at:
<https://journeynorth.org/symbolic-migration/resources/teaching/about-symbolic-migration>.

Note: If your school already has a milkweed patch, you can use this patch as a tool during the lesson, if you prefer not to plant more.



Wrap-Up

Evaluate:

Hold a classroom discussion after returning to your "home base." Ask the students to make connections between the milkweed plant and the Monarch Butterfly.

- *Would our school yard be a good place for a Monarch Butterfly to live? Why or why not?*
- *What are some things a Monarch Butterfly needs to survive?*
 - *Where would the butterfly find these things?*
 - *How can we help these butterflies? Does anything we do make it harder for them to survive?*

If you have asked the students to draw, ask them to share their drawing and/or their sentences.

Throughout the winter months, and into the spring melt, remind the students of their milkweed seeds which were planted, as plants come up in other ways. Discuss adaptations of animals (hibernation, adaptation for seasons, or migration) as they come up in books or conversation. Toward the spring, begin reminding the students of their milkweed which will soon grow, the caterpillars which will hatch soon, and the migrating monarchs which are returning to the area.

Note: This activity can be done in the spring, as well, depending on the seeds/seedlings you are planting. Consult with the Master Gardener for additional instructions.

Formative Assessment:

Have *students choose one of the species and draw a picture of it in their journals.*

Summative Assessment:

- *Would our school yard be a good place for a Monarch Butterfly to live? Why or why not?*
- *What are some things a Monarch Butterfly needs to survive?*
 - *Where would the butterfly find these things?*
 - *How can we help these butterflies? Does anything we do make it harder for them to survive?*