

Monarch Butterfly Unit

Facilitator Guide
Adaptable for 4th-5th Grade



Brought to you by:



OKC  ZOO

Cover Photo provided by the OKC Zoo and taken by Jennifer D.

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Special thanks to:
Oklahoma City Zoo
Oklahoma's Own News 9

How to use this guide

This facilitator guide is designed to provide an organized structure and flow for presenting lessons about the Monarch Butterfly. Included in this guide are lesson plans with activity opportunities for you to use as you wish. There is also a slide presentation that follows this guide for you to present as you teach.

While this facilitator guide and slide presentation provide detailed guidance and information, feel free to customize these lessons and experiences to fit the needs of your students.

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Sources:

The lessons contain information gathered from many different sources, including:

- Oklahoma City Zoo- okczoo.org
- Okies for Monarchs- okiesformonarchs.org
- National Wildlife Federation- nwf.org
- World Wildlife Fund- worldwildlife.org

Resources provided by Oklahoma City Zoo

Monarch Videos

- OETA: Dr. Rebecca Snyder [Wild Icons- Monarch](#)
- News 9 & OKC Zoo: Lacie Lowry: [Oklahoma's Monarch Migration](#)
- OKC Zoo: [How to Plant a Monarch Garden](#)
- Ted Talk: Mary Ellen Hannibal [How you can help save the monarch butterfly and the planet](#)
- Ted Ed: Colm Kelleher [The science of symmetry](#)

Movies/TV Shows

- Flight of the Butterflies: Amazon Prime
- The Magic School Bus: Butterfly and the Bog Beast
- [Wild Kratts: Voyage of the Butterflier](#)

Monarch Books

- ***Juniper's Butterfly Garden* by the OKC Zoo (5-8 years)**
- *Caterpillar Spring Butterfly Summer* by Susan Hood and Claudine Gévry (2-4 years)
- *Señorita Mariposa* by Ben Gundersheimer (2-5 years)
- *Gotta Go! Gotta Go!* By Sam Swope (3-6 years)
- *Hurry and the Monarch* by Antoine O Flatharta (5-8 years)
- *Monarch Butterfly* by Gail Gibbons (4-8 years)
- *A Butterfly is Patient* by Dianna Hutts Aston (5-8 years)
- *Martha Milkweed Has No Friends* by Flora Caputto (5-10 years)
- *The Mystery of the Monarchs* by Barb Rosenstock (4-8 years)
- *Monarch Butterflies* by Ann Hobbie (7-8 years)
- *Mr. McGinty's Monarchs* by Linda Vander Heyden (6-9 years)
- *Save the Bees* by Bethany Stahl (8 - 9 years)
- *Winged Wonders: solving the monarch migration mystery* by Meeg Pincos (7-10 years)
- *Solimar: The Sword of the Monarchs* by Pam Muñoz Ryan (8-12 years)
- *The Girl Who Drew Butterflies* by Joyce Sidman (10-12 years)
- *The Monarchs are Missing: A Butterfly Mystery* by Rebecca E. Hirsch

Lesson 1: Basic Needs and Endangered Animals

Lesson Summary

This lesson begins with a review of basic needs for animals that live in the wild. Students will learn what “endangered” and “conservation” means. In addition, the monarch butterfly will be introduced and discussed to prepare for the following lessons in this unit.

Required Materials

Slide Presentation: The slides progress in the same order as the facilitator guide.

Videos:

- [Conservation for Kids video](#)- stop the video at 6:03
- [Flowers and Their Pollinators video](#)

Activities:

- (Optional activity for introduction) Endangered Animals activity- will need 100 dried beans (or another small item to hide around the room)
- Monarch Butterfly Research- Students will research the Monarch Butterfly and share 4 facts.

Links: (Can be used with the research activity.)

- <https://www.nwf.org/Educational-Resources/Wildlife-Guide/Invertebrates/Monarch-Butterfly>
- <https://kids.nationalgeographic.com/animals/invertebrates/facts/monarch-butterfly>
- Optional-
<https://monarchjointventure.org/blog/monarchs-and-dia-de-muertos-in-mexico#:~:text=Monarchs%20represent%20the%20souls%20of,them%20for%20D%C3%ADa%20de%20Muertos.>

Essential Question

What do animals need? What happens if animals become endangered?

Learning Goal

I can identify the basic needs of animals.

I can explain the primary reasons that animals become endangered or threatened.

Lesson Guide

Basic Needs Review

Open with the discussion question, “What do animals need to survive?”. Discuss the difference between wild and domesticated animals and what each group needs to live. Ask for responses of what animals do NOT need to live.

After the discussion question, present students with the 5 things animals need to survive.

1. Food
2. Water
3. Shelter
4. Air- Most animals need air/oxygen to breathe.
5. Space- Animals may need room to move around, find food, have babies, and/or play. This doesn't mean “outer space”!

Endangered Animals & Conservation

Introduction Activity (Optional)

Materials needed- 100 dried beans (or small item)

1. Prior to this activity, hide the beans or small items around the room.
2. Ask the students to hunt for the beans.
3. You can let them search for a while but they won't find them all. After some time searching, count the number of beans.
4. Challenge them to look for more beans and count how many are found in the second round.
5. Ask students to hunt for a third time and count the results.

Discuss with children how each time they looked for the beans they were harder to find. The same is true with some animals in the wild. Over time, animal populations can become smaller so they are more difficult to find. This could be because they are hunted, their homes are being destroyed, or they don't have enough food. They've become endangered.

Vocabulary

endangered- any type of plant or animal that is in danger of disappearing forever (extinct).

conservation- protection of things found in nature

Explanation

The OKC Zoo is home to many endangered species. The slides contain pictures of these animals and their names. According to the International Union for Conservation of Nature ([IUCN](#)) [Red List](#), there are currently more than 40,000 species that are threatened with extinction.

The last slide of the OKC Zoo endangered pictures shows a Monarch butterfly. The International Union for Conservation of Nature (IUCN) declared the migratory monarch butterfly endangered in July of 2022. More information can be found [here](#).

In order to prevent animals becoming extinct we can practice “conservation.” **Conservation** is the protection of things found in nature. There are many things we can do everyday that will help. Show video: [Conservation Video for Kids](#) (stop video at 6:03)

Monarch Butterfly Introduction

The monarch butterfly is an important animal for many reasons. Not only do monarchs help flowers grow and are an important part of the food chain, but they are a symbol of inspiration. Open with the discussion question, “Do you think monarch butterflies are important? Why or why not?”

Vocabulary

- **pollen**- fine powder made by some plants
- **pollinator**- animal that helps carry pollen from one flower to another
- **food chain**- the order in which living things depend on each other for food

Explanation

- Monarch butterflies are **pollinators**.
 - This means when they stop on a flower to sip on the nectar, the pollen sticks to their legs. Then the butterfly moves to another flower. The pollen brushes off onto the new flower. This helps flowers make seeds, which grow in new plants. Bees are pollinators, also!
- Monarch butterflies are part of the **food chain**.
 - They are an important part of the food chain for many animals. That means animals like birds, other insects, and small animals eat them to survive.
- Monarch butterflies are a symbol of **inspiration**.
 - Their long journey is used to symbolize endurance, change, hope, and life.
- **Optional Information**-The butterflies have a special cultural tie to Mexico. Monarchs appear in Mexico at the same time every year and people living there believe the monarchs represent the souls of their ancestors returning to visit them for Dia de los Muertos (Day of the Dead). More information about this tradition can be found on the [Monarch Joint Venture website](#).
 - **Special Note:** It is important to note that not all indigenous Mexican people share these beliefs about the monarch and the Day of the Dead.

Activity

Students will look up facts about the Monarch butterfly that are additional to the ones mentioned during the explanation. As the teacher, you can guide them to particular websites or have library books available. Have students fill out the **Monarch Butterfly Fact Sheet** individually or in small groups. Students can share what they learned in groups or to the class.

Possible links:

- <https://www.nwf.org/Educational-Resources/Wildlife-Guide/Invertebrates/Monarch-Butterfly>
- <https://kids.nationalgeographic.com/animals/invertebrates/facts/monarch-butterfly>
- Optional Day of the Dead resource:
<https://monarchjointventure.org/blog/monarchs-and-dia-de-muertos-in-mexico#:~:text=Monarchs%20represent%20the%20souls%20of,them%20for%20D%C3%ADa%20de%20Muertos.>

Closing

Endangered animals all over the world need our help but there is one particular animal right here in Oklahoma that we can make a big difference for. The monarch butterfly is in danger of becoming extinct for many reasons. The following lessons in this unit focus on these reasons and what we can do to help. The OKC Zoo is working with partners to help and you can be involved too.

Name: _____

Monarch Butterfly Fact Sheet

Directions: Complete the form below by researching information on the Monarch butterfly.

Describe what the Monarch butterfly looks like.

Write four facts about Monarch butterflies.

1.

2.

3.

4.

Lesson 2: Monarch Butterfly Life Cycle

Lesson Summary

This lesson focuses on the life cycle of the monarch butterfly from egg to adult. Students will learn facts about each stage as well as see real-life pictures and a time-lapse video. The activities include a picture sort of the stages of the life cycle as well as an option to create a poster illustrating the life cycle.

Required Materials

Slide Presentation: The slides progress in the same order as the facilitator guide.

Books:

The Girl Who Drew Butterflies by Joyce Sidman- This is a biography about Maria Merian, one of the first female entomologists. It includes full-page paintings. This could be a good book to read throughout the unit or just choose parts to read.

Videos:

- **Option 1:** [Life Cycle of the Monarch Butterfly video](#)
- **Option 2:** [Monarch Butterfly Life Cycle video](#)- Note: This video only shows words typed on the screen with no narration.
- [Time lapse video](#) by Joshua Russo

Links:

[Monarch Butterfly Life Cycle](#) information

Activities:

- Life Cycle Sort
- Life Cycle poster (optional)

Essential Question

How does a butterfly grow and change?

Learning Goal

I can identify and put in order the stages of the monarch butterfly's life cycle.

Lesson Guide

Introduction

Activate prior knowledge by asking questions like this:

- What do you already know about butterflies?
- What do you know about a butterfly's life cycle?
- Do you know the link between a caterpillar and a butterfly?

Show the picture of a monarch butterfly (in corresponding slides) and ask: "What do you notice about the way the monarch butterfly looks?"

Monarch butterflies are known by their markings. Their markings include bright orange wings covered with black veins and rimmed with a black border and white dots. The bright markings deter predators from eating them. Monarchs get toxins from eating milkweed. Some animals that eat a monarch can get sick and will avoid them in the future.



Vocabulary

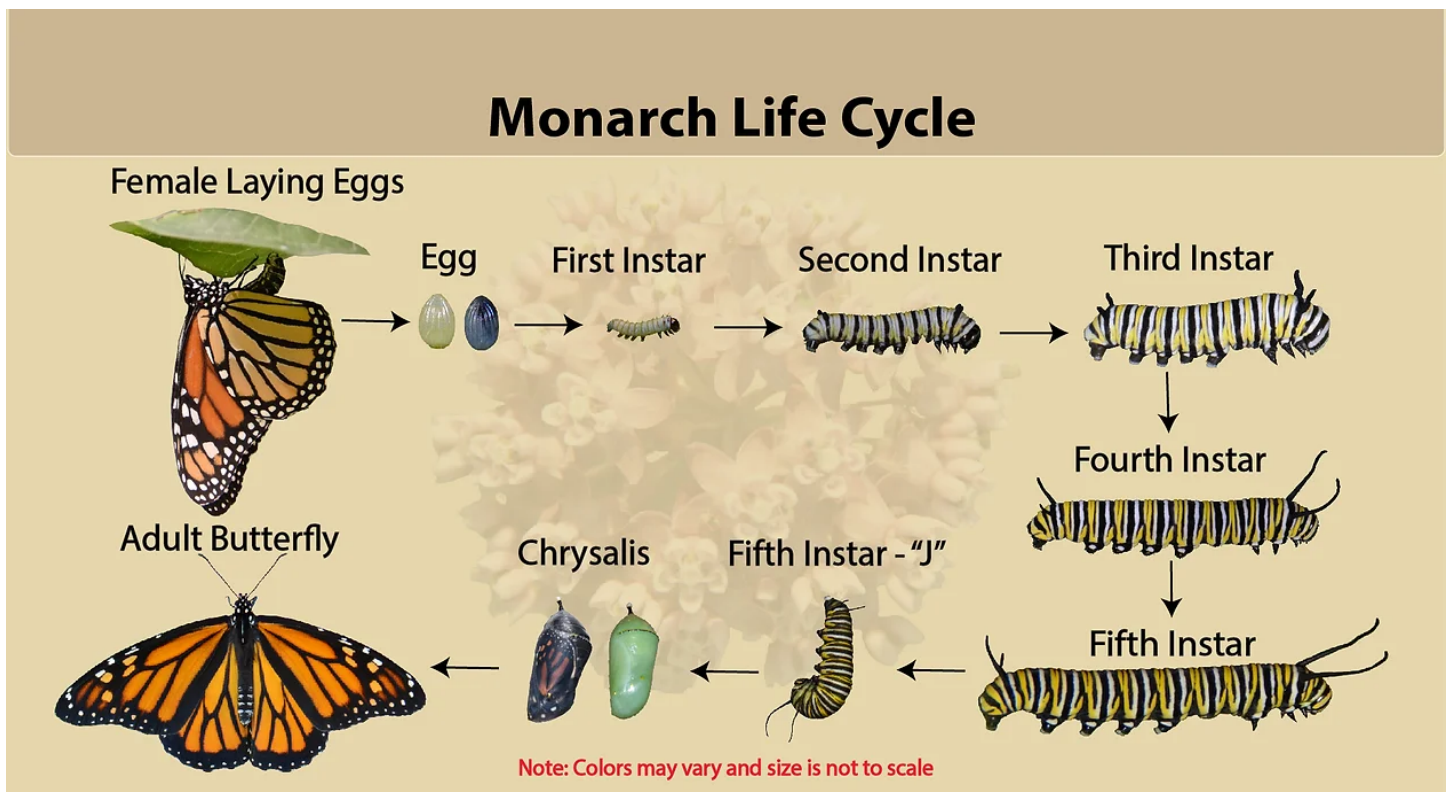
- **life cycle**- a series of changes that happens to all living things as it grows and develops
- **Caterpillar**- the young version of a butterfly or moth, also known as larva

- **Chrysalis**- the hardened protective case around the caterpillar before it emerges into a butterfly, also known as pupa
- **milkweed**- plant with milky juices and clusters of flowers; milkweed is important to a monarch butterfly's life cycle

Explanation

*Note- The life cycle portion of the lesson can be presented through book(s), video, slides, or in combination. These materials are available in the Resources provided by the OKC Zoo, Required Materials section or in the lesson slides.

Monarch Butterfly Life Cycle



Credit: Naturedigger.com

Life Cycle Stages

1. **Egg**-
 - a. Monarch butterflies lay their eggs on the undersides of milkweed leaves.
 - b. They will lay one egg per leaf but will lay between 300-500 in its lifetime.
 - c. Eggs are the size of the tip of a pencil and are yellow or off-white in color and has a shine to them.
 - d. They hatch about 4 days after being laid.

2. **Caterpillar** (larva)-

- a. The egg will hatch into a caterpillar. After hatching the caterpillar will eat its egg which is rich in protein.
- b. The caterpillar has yellow, black, and white stripes.
- c. The caterpillar has two sets of tentacles, front and back, called filaments.
- d. The caterpillar eats milkweed nonstop for two weeks to store up fat and protein for their upcoming metamorphosis into an adult butterfly.
- e. The caterpillar will outgrow their skin 5 times. When they outgrow their skin, they molt, which means to shed skin.
- f. The time between each molt is known as *instar*.

3. **Chrysalis** (pupa)-

- a. The Monarch stays in the chrysalis for 9-14 days.
- b. The chrysalis will darken when it's time to become a butterfly.
- c. As it begins to develop into a butterfly, the shape of its body and tightly folded wings will be seen.
- d. The chrysalis is very delicate.

4. **Adult-**

- a. The monarch's wings are wrinkled when it comes out of the chrysalis and take time to straighten out.
- b. The new butterfly will hang for several hours before flying off.

The **time lapse video** of the Monarch butterfly's life cycle shows a butterfly's transformation from caterpillar to butterfly and is included in the corresponding slides or linked in the Required Materials section.

Activity

1. Life Cycle sort- print the pictures of the life cycle stages for groups or individual students to sort into the correct order. There is an answer key included.
2. (Optional) Life Cycle poster: Students can create their own life cycle on paper.
 - a. Copy butterfly life cycle stage graphics for students to use on their poster or students can draw the stages.
 - b. Have students label the life cycle.

Closing

Review the life cycle before ending the lesson. Not only do monarch butterflies have an interesting life cycle, they also have an interesting migration pattern. The next lesson focuses on the miraculous journey monarchs make each year.





Answer Key (Credit: Project Wild Nebraska)

Monarch Life Cycle Sort

ANSWERS



photo by B. F. Pave
Stage 1: egg



photo by Sven Fox, The Unretired Fox
Stage 2: caterpillar
Instar 1



photo by John Morgan, jordantrades.com
Stage 3: caterpillar
Instar 2



photo by John Morgan, jordantrades.com
Stage 4: caterpillar
Instar 4



photo by Todd Stout, raisingbutterflies.org
Stage 5: caterpillar
Instar 4



photo by Andrew C.
Stage 6: caterpillar
Instar 5



photo by Nicky Davis
Stage 7: beginning
to form chrysalis



photo by Andrew C.
Stage 8: pupa stage,
chrysalis



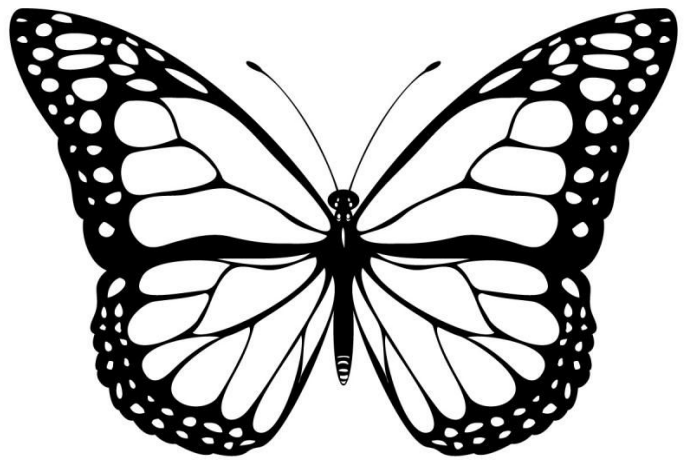
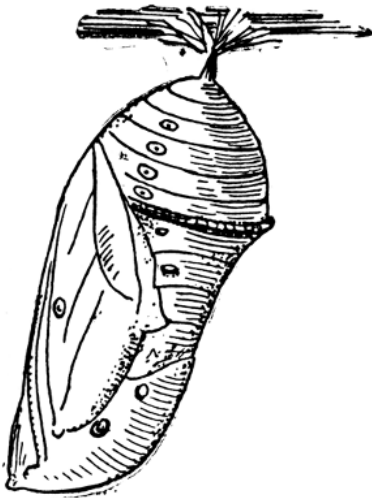
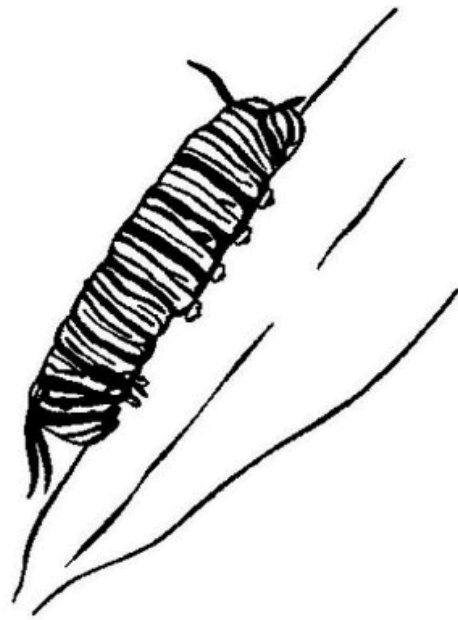
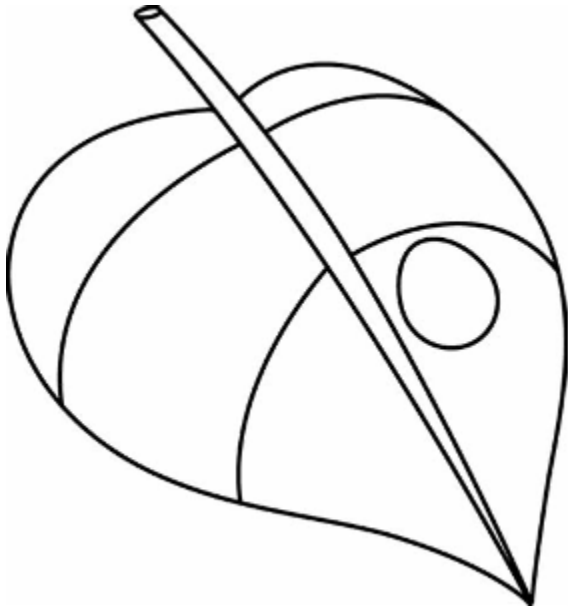
photo by The Franklin Institute
Stage 9: pupa,
nearing end of stage



photo by Captain Tucker
Stage 10: adult
emerging from chrysalis



photo by G. J. ...
Stage 11: adult



Lesson 3: Monarch Migration Part I

Lesson Summary

This lesson and the next lesson focus on the migration patterns of the monarch butterfly. Students will learn the necessary vocabulary as well as learn about the migration journey of monarch butterflies in the fall and in the spring.

Required Materials

Slide Presentation: The slides progress in the same order as the facilitator guide.

Books:

When Butterflies Cross the Sky by Sharon Katz Cooper- [Video read-aloud](#) if you do not have access to a physical copy of this book.

Videos:

[News 9's Monarch Migration video](#)

Activity:

Guided Notes- fill out worksheet with information from <https://monarchwatch.org/migration/>

Links:

- Interactive Migration Map [link](#)
- Monarch Joint Venture's migration information- <https://monarchjointventure.org/monarch-biology/monarch-migration>

Essential Question

Why is it important for monarch butterflies to migrate?

Learning Goal

I can describe the migration pattern of the monarch butterfly.

Introduction

Open with a discussion question asking students to share what they know about migration. Ask students if they know what it means or if they know which animals migrate. This lesson focuses on how monarch butterflies migrate each year.

Vocabulary

- **migration**- the traveling of long distances in search of a new habitat
- **habitat**- home of an animal or plant
- **roost**- when butterflies group together for warmth

Explanation

1. Read *When Butterflies Cross the Sky* by Sharon Katz Cooper. Link for the video read-aloud is available in the slides or the Required Materials section. This is optional but this book has lots of good information about the migration of monarchs.
2. Monarch migration facts:
 - a. Migration south is triggered by days getting shorter and temperatures getting colder. Because of this, milkweed starts dying and there are fewer nectar sources
 - b. Migrating north is triggered by longer daylengths and warmer temperatures. Milkweed starts dying and there are fewer nectar sources.
 - c. Some Monarchs can fly almost 100 miles in one day and like to travel together. For reference, 100 miles is the distance between Oklahoma City and Tulsa!
 - d. They stop along the way for nectar and shelter to avoid harsh weather.
 - e. Even though they have never been to Mexico, they somehow know the way.
 - f. They migrate to Mexico because it provides cool temperatures (not cold), water, and shelter and allows them to conserve energy to survive the winter.
 - g. They start their journey back north in March.
 - h. There are four to five generations of butterflies needed to complete the migration journey, depending on the region.
3. Show the migration map on the slide and point out that some Monarch butterflies fly through Oklahoma when they migrate. They fly south when it gets cool and back north in the spring/summer.
4. Utilize the Website Resource- [Interactive Migration Map](#) to learn facts and see migration patterns for different seasons. (Link also located in lesson slide.)

5. Watch News 9's story on the Monarch migration to Mexico. (video link on slide or in Required Materials section.

Activity

1. Guided Notes: As a whole group, small group, partner or individually, have students use information from the website <https://monarchwatch.org/migration/> to fill out the guided notes worksheet.
2. (Optional) Writing Activity: Have students write about the migration journey of the monarch butterfly from the perspective of the butterfly. Students can use facts learned in the lesson to guide their writing.

Closing

Close this lesson by showing the News 9 Monarch Migration video (linked in the slides and in the Required Materials section). Monarch Butterflies take a special journey each year to Mexico for the winter. The migration path Monarchs take can be long and dangerous. The next lesson will continue to focus on Monarch migration.

Name _____

Guided Notes for Monarch Watch website

Directions: Go to the website <https://monarchwatch.org/migration/>. Use the information from this site to fill in the notes below.

Read the **Fall Migration** section and answer the following questions.

1. Monarch butterflies cannot _____ a long winter.
2. What are 2 seasonal changes that influence when Monarchs start their migration?
 - a. _____
 - b. _____
3. Monarch butterflies travel a long way, up to _____ miles.
4. Monarch butterflies fly in masses to the same winter roosts, often to the exact, same _____.
5. In your own words, describe how the Monarch butterflies that are born in late summer and early fall differ from the butterflies born in summer.

6. Monarch butterflies are cold-blooded. What happens if they get too cold?

7. How does fat in the abdomen of the Monarch butterfly help them to survive?

8. As they migrate southwards, what do Monarchs stop to do?

9. Researchers are not exactly sure how these small creatures can travel so far. One way researchers think Monarchs save their "fuel" is by _____.
10. Another unsolved mystery about Monarchs is _____.

Read the **Overwintering Sites** section to answer the following questions.

1. There are two different migration paths for Monarchs.
 - a. Monarchs _____ of the Rocky Mountains return to the California coast.
 - b. Monarchs _____ of the Rocky Mountains travel to the mountains of Central Mexico.
 2. What kind of forests in Mexico provide the perfect conditions for Monarchs to survive the winter?
 3. A Monarch butterfly needs cool temperatures so they don't _____, or use up their energy reserves as fast.
 4. If there is a sunny day, Monarchs often warm up enough to fly nearby to _____.
 5. What are the 5 important elements that make up the Monarch habitat in Mexico?
 - a. _____
 - b. _____
 - c. _____
 - d. _____
 - e. _____
-

Read the **Spring Migration** section to answer the following questions.

1. As winter ends and the days grow longer, Monarch butterflies become more _____.
2. When do they leave their Mexican roosts? _____
3. If the butterflies leave too early the _____ may not be ready for them to lay eggs on.
4. Once the new Monarchs are born, they do not live as long as their overwintering parents. Their life span is _____ to _____ weeks.
5. In contrast, the butterflies that migrate south and overwinter in Mexico can live _____ or _____ months.
6. Why does the total number of Monarch butterflies increase throughout the summer?

Lesson 4: Monarch Migration Part II

Lesson Summary

The monarch butterfly's migration path is complex and dangerous. This miraculous journey takes some of these butterflies through the state of Oklahoma! This lesson focuses on the discovery of the monarch migration and how people have learned about it through the years.

Required Materials

Slide Presentation: The slides progress in the same order as the facilitator guide.

Books:

Winged Wonders: Solving the Monarch Migration Mystery by Meeg Pincus- ([Video read-aloud](#))

Videos:

There is a video in the lesson slides that discusses tagging monarch butterflies at the OKC Zoo.

Activities:

[Migration of the Monarch Butterfly Coordinate Graphing activity](#)- free activity from ©Dr. Dave's Science

Essential Question

How does the monarch butterfly's migration journey connect to me?

Learning Goal

I can describe the migration pattern of the monarch butterfly.

Lesson Guide

Introduction

Open with a discussion question reviewing the previous lesson on Monarch migration. Review the facts that were taught in the first migration lesson.

1. Review the vocabulary: migration, habitat, roost
2. Facts to focus on:
 - a. Monarch migration happens when:
 - i. Fall-Days get shorter and temperatures get colder.
 - ii. Spring-Days get longer and temperatures get warmer..
 - iii. Milkweed starts dying and there are fewer nectar sources
 - b. Some Monarchs can fly almost 100 miles in one day and like to travel together.
 - c. They stop along the way for nectar and shelter in harsh weather.
 - d. Even though they have never been to Mexico, they somehow know the way.
 - e. They migrate to Mexico because it provides cool temperatures (not cold), water, and shelter and allows them to conserve energy to survive the winter.
 - f. They start their journey back north in March.
 - g. There are four generations of butterflies needed to complete the migration journey.

Explanation

Read *Winged Wonders: Solving the Monarch Migration Mystery* by Meeg Pincus. Video read-aloud is available in lesson slides or in Required Materials section.

Be sure to ask questions throughout the story and discuss the people who played a part in the discovery of the monarch butterfly migration journey.

Additional Resource

The lesson slides includes a video from the Oklahoma City Zoo about tagging butterflies. It shows how two butterflies who were tagged in OKC were recovered in Mexico!

This link provides more information about tagging butterflies if students are interested in learning more. [Monarch Watch Tagging Program](#)

Activity

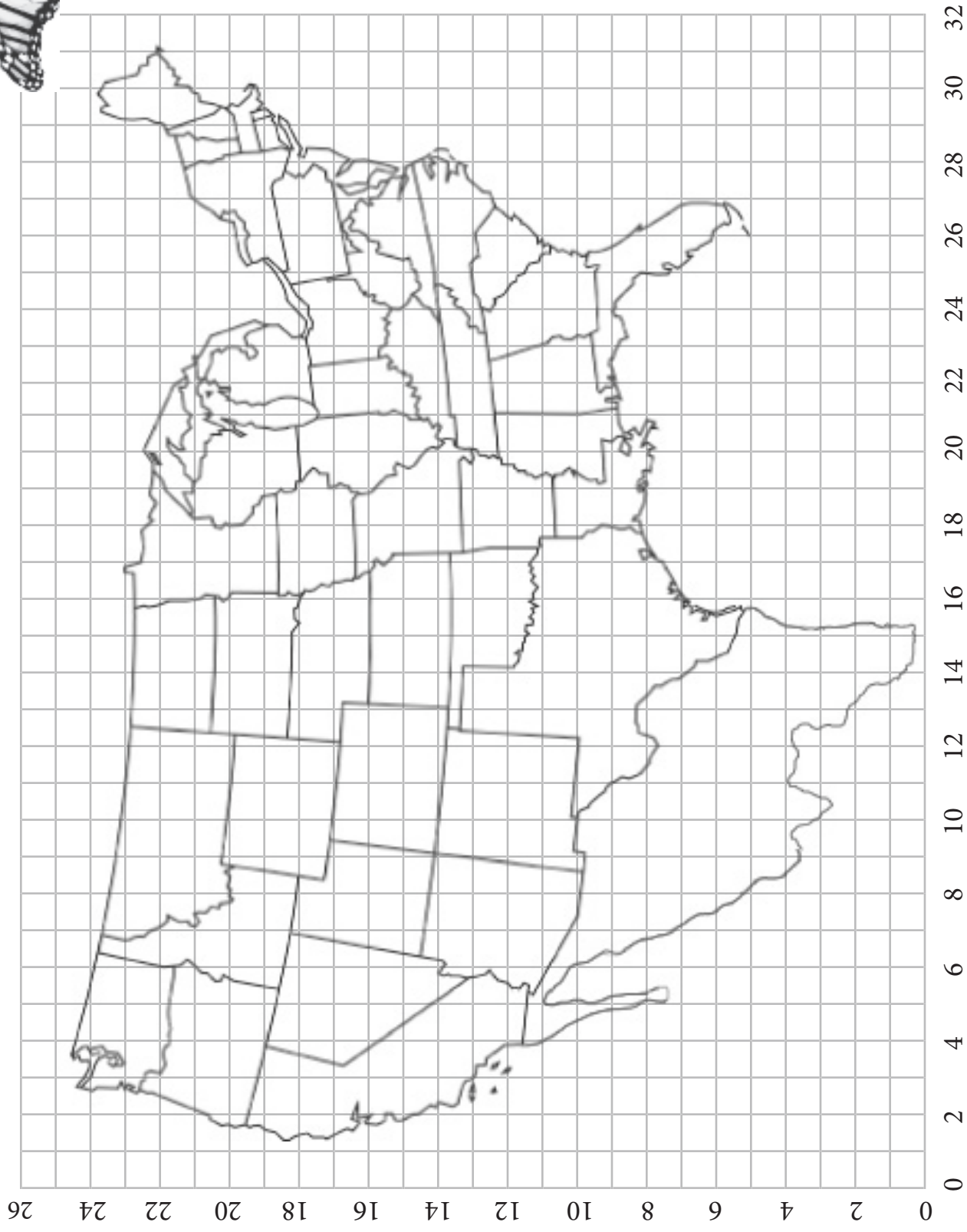
1. Migration of the Monarch Butterfly Coordinate Graphing-Use coordinate points to map out the spring migration path of the Monarch butterfly. Students will need a blank U.S.A/Mexico map and the coordinates. There is an answer key included.
2. (Optional) Migration in Motion: Set up your space with areas that represent the points in the Monarch butterfly's migration map: One end is Canada or northern U.S. and the other end is Mexico. This can be done using signs or by having designated spots around the room. Have students role-play the butterfly migration using the scenario cards included or making up your own.

Closing

The monarch butterfly's yearly migration is complex and dangerous. In this lesson and the previous lesson, students learned not only the path the butterflies travel during their migration but also the dangers they face on the way. The next lesson will explore ways to help conserve the monarch butterfly population.

Name _____

The Migration of the Monarch Butterfly



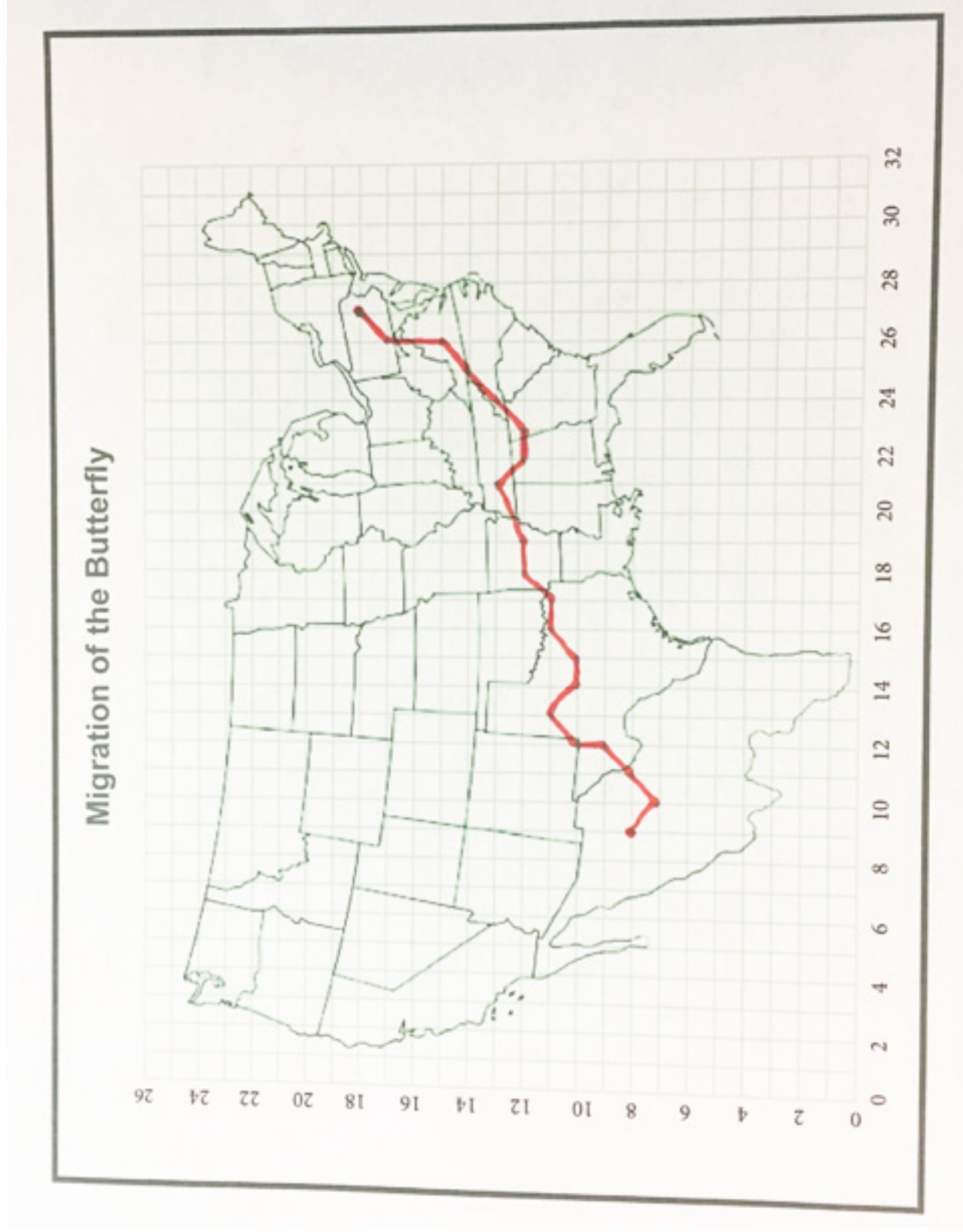
The Spring Migration of the Monarch Butterfly



Directions: plot each coordinate point on the US-Mexico map and connect the lines to make a map of the monarch butterflies spring migration.

Day	Coordinate Point
Start	9,8
Day 1	10,7
Day 3	11,8
Day 5	12,9
Day 7	12,10
Day 9	13,11
Day 11	14,10
Day 13	15,10
Day 15	16,11
Day 17	17,11
Day 19	18,12
Day 21	19,12
Day 23	21,13
Day 25	22,12
Day 27	23,13
Day 29	24,13
Day 31	25,14
Day 33	26,15
Day 35	26,17
Day 36	27,18

Answer Key



Migration in Motion Scenario Cards

It's a warm morning, start migrating but remember to stop for nectar along the way.	It's starting to get dark, find a spot to roost for the night with other butterflies.
Sunny but chilly. Shiver to warm up your muscles. Monarchs can't fly when they get too cold. Count to 10 and then start to fly.	Oh no! It's starting to rain. Quick, find a place to roost with other butterflies until it stops raining.
It's a windy day! You can fly but the wind will make it difficult and you will be slow.	It's partly cloudy with a chance of rain. Fly but watch the clouds for rain.
Try to drink as much nectar today because tomorrow you will fly in an area that has lost a lot of nectar plants.	You're flying through a forest so watch out for trees and predators. You'll have to dodge a lot!

Lesson 5: Monarch Butterfly Conservation

Lesson Summary

This lesson will focus on reasons for monarch population decline and conservation for the monarch butterflies' habitats. Topics will include what is currently being done in Oklahoma to help this fragile population and what kids can do to help.

Required Materials

Slide Presentation: The slides progress in the same order as the facilitator guide.

Books:

- (Optional) *Butterflies Belong Here* by Deborah Hopkinson [Video read-aloud](#) or [Video read-aloud #2](#)
- [IUCN link](#)- This page provides more information on the decision to add monarch butterflies to the endangered list.
- (Optional) *Juniper's Butterfly Garden: A Small Start for a Better World* by Autumn Heigle ([Video read-aloud](#))
-

Videos:

- [Endangered Migration: A Monarch Butterfly Story](#)
- [How to Plant a Monarch Garden](#) by the OKC Zoo & Okies for Monarchs

Activities:

- Butterfly garden map
- Persuasive letter/video

Extra resources:

- [Success Stories blog post](#)
- [Okies for Monarchs blog posts](#)
- [Zoo Education Programs](#)

Essential Question

What can I do to help monarch butterflies?

Learning Goal

I can identify ways monarch butterflies can be helped.

Lesson Guide

Introduction

There are many people doing great things to help monarch butterflies live. This lesson introduces local and national organizations that are focusing on conservation of monarchs. Students will also learn ways they can get involved in these conservation efforts.

Discussion

Remind students that in July of 2022, the monarch butterfly was listed as endangered by the IUCN (International Union for Conservation of Nature). Discuss that monarch butterflies are in danger of disappearing forever (extinct) and need our help. Ask students, “Why do you think monarch butterflies are disappearing?”

Show the video ‘Endangered Migration: A Monarch Butterfly Story’ linked in the slides of the Required Materials section. This video discusses the many reasons the monarch butterfly population is declining.

Explanation

Reasons for population decrease:

- Loss of habitat
 - Deforestation in Mexico
 - Habitat loss in North America due to agricultural and urban intensification
- Loss of food resources
 - Milkweed and nectar plants are disappearing due to agriculture, development and chemical use.
- Climate change
 - Increases extreme weather-
 - Ice storms in Mexico
 - Early frost/freezes in North America, particularly Texas
 - Hurricanes and flooding destroy habitat
 - Windstorms/thunderstorms can move monarchs further or faster than needed
 - Drought can cause caterpillars/eggs as well as plants to dry up

- Can affect the timing of migration which could result in the misalignment of monarchs missing the milkweed/nectar plant emergence.

Vocabulary

conservation- protecting our environment and the wildlife that lives in it

Remind students of the term 'conservation' learned in lesson one and the tips learned in the video. There are organizations right here in Oklahoma that are working to help save the monarch butterflies.

Oklahoma City Zoo

The OKC Zoo has pollinator plants all across the grounds! There are pictures of examples in the slides as well as examples of pollinator gardens people have built across Oklahoma including some planted at schools.

(Optional)- The OKC Zoo even has a book that focuses on Monarch conservation that was written by employee, Autumn Heigle! The link to the read-aloud for Juniper's Butterfly Garden is on the corresponding slide or in the required materials at the top of this lesson.

Want to plant a garden?

The Okies for Monarchs and the OKC zoo work together to help save the monarch butterfly. The website includes a video that teaches how to create your own butterfly garden. The website is a great resource- <https://www.okiesformonarchs.org/>. If you choose to build a garden, be sure to register it on the site!

If you are interested in developing a pollinator garden at your school, you can apply for the [OKC Living Classroom Grant Program](#).

Local Organizations/Resources

Okies for Monarchs- <https://www.okiesformonarchs.org/>

Oklahoma City Zoo- okczoo.org

- [Success Stories blog post](#)
- [Okies for Monarchs blog posts](#)
- [Zoo Education Programs](#)

National Organizations

Monarch Joint Venture- monarchjointventure.org

Xerces Society for Invertebrate Conservation- <https://xerces.org/monarchs>

Activity

1. **Butterfly garden map-** Choose a spot at your school that you would like to put a butterfly garden. Create a map of where it would be and decorate it. Aerial view of the school would work best.
 - a. **Option 1:** Provide grid paper or blank paper. Students can create a map of the school and add their butterfly garden to it.
 - b. **Option 2:** Provide students with an aerial map of your school. They can add their butterfly garden to it.
 2. **Persuasive Letter/Video-** write a letter or create a video to give to your teacher/principal trying to persuade them to develop a butterfly garden at your school. Use what you've learned about the monarch butterfly to support your request.
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Special Note: While it may be tempting to bring Monarchs indoors to raise on your own, there are many reasons why that is not a good idea and could pose serious risks to monarchs. Use this resource from Monarch Joint Venture to learn more:

<https://mjv.nyc3.cdn.digitaloceanspaces.com/documents/RearingMonarchsWhyorWhyNot.pdf>

Closing

Even though monarch butterflies are endangered, many people are taking steps to prevent the population from decreasing even more. Many organizations are working to provide information to the public on how they can help in their own communities. The OKC Zoo is diligently working with organizations to make Oklahoma a safe and welcome place for monarch butterflies and you can help too!

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Thank you for downloading!