

# Every Student Initiative Field Trip: First Grade



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The Every Student Initiative (ESI) aims to bring every student in the Central Illinois area to the Peoria Riverfront Museum every year. To help us achieve this goal, Polly Barton, the wife of former Caterpillar CEO Glen Barton, made a substantial contribution specifically to help bring the Peoria Public Schools Kindergarten through 8th grade students to the Peoria Riverfront Museum. Since the museum is an educational organization whose goal is to inspire lifelong learning, matching the Peoria Public Schools' curriculum to support their educational goals is very important. Through visits to specific exhibits, planetarium shows, and Giant Screen Theater educational films, the Peoria Riverfront Museum hopes to inspire students to further develop their knowledge of topics outlined in the curriculum per their grade level.

**INCLUDED IN YOUR E.S.I. FIELDTRIP:**

- Transportation to and from your school
- Pre-Visit Video
- Brief staff welcome and orientation upon arrival at the museum
- 3 hour visit to the museum's galleries, and either the DOME Planetarium or the Giant Screen Theater as best pertains to your specific curriculum
- Pre & post visit materials for teacher use
- Pre, during, and post visit student activities customized for your trip

## Greetings,

**We are very much looking forward to your visit to the Riverfront Museum! To ensure the best possible experience for your group, please review the following information prior to your visit.**

Since your class will be joining us for an Every Student Initiative field trip, your educator's guides, and pre/post visit activities are all included in this packet, and can also be found on the PSD150 website. If you have questions about any of the information seen here, please contact us and we will happily assist you.

### Arrival/Check-In:

- Please **confirm your final numbers** (students & chaperones) with Holly Johnson **5 days prior** to your visit.
- Do your best to **ARRIVE ON TIME!** Tours are carefully scheduled, and arriving on time makes the day go easier for both you and your students.
  - "On Time" is defined as arriving **5-10 minutes before your first scheduled program** to allow for transition time (e.g.: check-in, bathroom breaks, etc.)
- Upon arrival, one leader should check in at the front desk to report the final tally of students and adults and to pay for the field trip. It is important that you know your total numbers before coming to the front desk. This will ensure your group starts promptly at your designated time.
- Rolling bins will be provided to your group upon arrival to store items like sack lunches and/or coats. We cannot provide cooling or heating services for lunches.
- A museum host/educator will greet the group in the lobby and give a brief orientation

### Bus Loading/Unloading Zones:

- Buses can load and unload at the front entrance of the museum at 222 SW Washington Street. There is a drop-off lane directly in front of the museum.
- There is no on-site bus parking; buses can park under the Bob Michel Bridge.
  - A bus driver map is available online, or at the front desk.





### Group Orientation:

- Upon your arrival at the museum, a staff member will briefly explain the museum rules, review your group's specific schedule, and provide chaperones with maps, activity sheets, and gallery guides as needed.

### Chaperone Policy:

- Peoria Riverfront Museum recommends one chaperone for every five students; all attending adults are considered a chaperone.
- Chaperones arriving separately can park in the museum parking deck for free.
- All chaperones should be made aware of the tour's itinerary.
  - Chaperone guides are available on the museum's website; please make use of these.

### Museum Rules:

Our goal is to provide a successful learning environment for all students. **You can help to create that environment by clarifying our behavioral expectations with your students both before you arrive AND by helping us enforce those expectations during your visit.** During your group orientation, a staff member will remind your students of the following rules:

- Walk in the museum. No running.
- Use indoor voices.
- Many of our exhibits are "hands-on," but some are not. We'll help your students to know the difference.
- No food, drink, candy or gum in the galleries.
- Respect others in your group as well as other museum visitors and staff.
- Teachers and chaperones must stay with their groups at all times.
- Photography is permitted in some galleries. Please ask your host for details.

## First Grade Field Trip, Element 1: Science/History—Habitats, Plants, Animals

### EDUCATOR'S GUIDE TO ILLINOIS RIVER ENCOUNTER



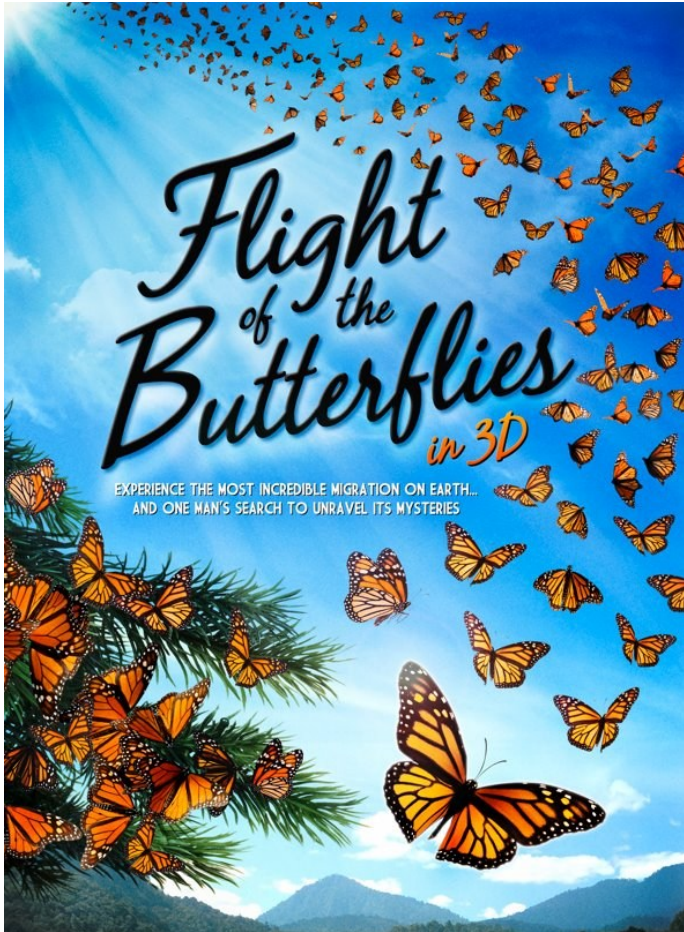
#### ILLINOIS RIVER ENCOUNTER

Learn the story of the Illinois River in this unique gallery. As you enter, you'll see a 400-gallon aquarium containing native fish species from the Illinois River. In the main exhibit, along one side, learn about the natural history of the river from the time of the Kankakee Torrent more than 14,000 years ago until the present. The opposite side tells the story of how humans have harnessed and changed the river.

#### Topics & Interactives found in the Gallery:

- Origins of the River: Information about the Kankakee Torrent and the native peoples who lived along the Illinois River
- River Ecosystems: Three dioramas show native plants and animals
- Fishing: Learn about native and invasive species, the shell-button industry, and commercial fishing
- Hunting and Trapping: See a “River Rat” cabin, a duck blind, and learn the history of hunting along on the river
- Tomorrow’s River: Learn about groups working to improve the river environment, view a live feed to the Emiquon National Wildlife Refuge
- The River as Highway: Columbia riverboat disaster, barge experience, pristine river model
- Canals and Locks: navigating the Illinois River canal, wicket dam interactive, lock interactive

## First Grade Field Trip, Element 2: Science/History—Habitats, Plants, Animals



Flight of the Butterflies in 3D is an interconnected scientific adventure story that spans not only thousands of miles, but generations. It's about the remarkable Monarch butterfly migration, the most incredible migration on Earth, and the determined scientist who spent 40 years trying to discover exactly where the butterflies mysteriously disappeared when they flew south for winter.

Dr. Fred Urquhart is the man obsessed with Monarchs. The obsession started in his youth, when he began to wonder where the butterflies spent the winter months. His passion became his profession as he went on to become a zoologist/biologist, teacher and university professor. Along with his wife Norah, he founded the Insect Migration Association, enlisting thousands of volunteers across North America to tag hundreds of thousands of butterflies to track their migration route. This association ultimately helped Dr. Urquhart discover, in 1975, that millions of butterflies migrated to the remote Transvolcanic Belt of central Mexico.

*Danaus plexippus* or Dana for short, is the Monarch we follow on her perilous journey from Mexico to Canada, along with her daughter, granddaughter and great granddaughter. The outstanding fourth, or “Super Generation” of butterflies travels more than 2,000 km south, all the way from the northern United States and southern Canada to Mexico, overwinters and makes one final short trip to the southern United States to lay eggs. Then, the cycle begins again. It is one incredible trip you won't want to miss.

For more information, including a digital Tiny Giants IBook and coloring sheets, visit <http://www.flightofthebutterflies.com/in-the-classroom/>

## PRE-VISIT ACTIVITY: Teacher Guide

# How does a Duck Stay Dry?

### Pre-Visit Activity Objective:

After having completed this activity, students will be able to explain how ducks stay dry in their natural habitats.

### To begin the activity, share the following information with your students:

During our field trip to the Peoria Riverfront Museum, we will explore the galleries and watch a movie called *Flight of the Butterflies 3D*. We will spend most of our gallery time in the Illinois River Encounter room. That exhibit will teach us all about the many different kinds of animals that live near the Illinois River and what kind of habitat or environment that they need to survive. We will learn a lot about fish and a lot about ducks. Today, to help us get ready for our field trip, we are going to talk about some of the ducks that live near the Illinois River and what those ducks need in their habitat to survive! Before we begin our activity, we are going to read/listen to the book *Ducks Don't Get Wet* by Augusta Goldin.

#### **\*This book is available in three formats:**

- Peoria Public Library: [https://alsi.sdp.sirsi.net/client/en\\_US/PeoriaPL/search/results?qu=ducks+don%27t+get+wet&te=&dt=list&lm=](https://alsi.sdp.sirsi.net/client/en_US/PeoriaPL/search/results?qu=ducks+don%27t+get+wet&te=&dt=list&lm=)
- YouTube: <https://www.youtube.com/watch?v=iQfDkXiE4nQ>
- Amazon: <https://www.amazon.com/Ducks-Dont-Get-Augusta-Goldin/dp/0064451879>

### Information to share with your students:

Ducks are mostly aquatic birds living in both fresh water and sea water and found on every continent except for Antarctica.

A male duck is called a drake, a female duck a hen, and a baby duck a duckling.

Ducks are omnivores. They feed on aquatic plants, small fish, insects, worms, grubs and more.

Diving ducks and sea ducks search for food fairly deep underwater. To be able to stay underwater more easily, diving ducks are quite heavy.

Dabbling ducks feed on the surface of water, on land, or by ducking their head underwater. Along the edge of their beak is a comb-like structure called a pecten, that enables them to hold slippery food and filter nutrients out of the water.

The most common and recognized species of duck is the Mallard or Wild duck. It is the most common duck found along the Illinois River. The male Mallard has a glossy green head, grey wings and belly, while the female has a brown-speckled plumage. Mallard ducks live 5 to 10 years in the wild and 8+ years in captivity.

All ducks have highly waterproof feathers due to the feathers interlocking nature and waxy coating.

## PRE-VISIT ACTIVITY: **Teacher Guide**

### **How Does a Duck Stay Dry?**

#### **Begin the activity:**

A duck's natural habitat is on or near the water. Most days, they spend the majority of their time in ponds, rivers, lakes, streams, and even swamps, looking for food. If we spent that much time in the water, our skin would be wrinkly and we would get cold. Ducks don't have this problem, however, because ducks don't get wet! Today we are going to do an experiment to figure out how a duck stays dry while it is in the water.

#### **Supplies:**

- Mallard duck example pictures
- Mallard duck printout (page 10)
- Crayons for each student
- Spray bottles with water (blue coloring optional)
  - ⇒ You can use large spray bottles, or something much smaller like an [atomizer spray bottle](#)
- Paper towels for clean up

#### **Instructions:**

1. Let the kids look at examples of mallard ducks and observe the colors they see and the patterns they see on the example pictures.
2. Pass out the mallard duck printouts and crayons. Instruct the kids to color in their duck (it can be realistic looking or unique). Make sure that they cover all of the white spaces in the duck with crayon. If they want part of their duck to stay white, they must color it with white crayon. The heavier and more saturated the color, the better the "experiment" will work.
3. Remind the students NOT to color in the feather in the box on the right side of their paper.
4. When the ducks have been completely filled in with crayon, allow students to spray their papers with water (the results will be more obvious if the water has been died blue with food coloring or liquid water-colors before hand).
5. Have the students compare the results of getting their mallard duck wet with the results of getting their uncolored feather wet. The waxy coating on the mallard duck should repel the water, letting it pool up on the drawing rather than absorbing the water, whereas the uncolored feather should absorb the water. This is how ducks stay dry -- their feathers are covered in a waxy, oily substance that stops them from absorbing water.

*Original Craft: [https://www.primroseschools.com/blog/learn-how-ducks-stay-dry-with-this-crafty-experiment/?utm\\_content=buffer7f685&utm\\_medium=social&utm\\_source=pinterest.com&utm\\_campaign=buffer](https://www.primroseschools.com/blog/learn-how-ducks-stay-dry-with-this-crafty-experiment/?utm_content=buffer7f685&utm_medium=social&utm_source=pinterest.com&utm_campaign=buffer)*

#### **Conclude the activity:**

When we visit the Peoria Riverfront Museum, we will get to see many different types of ducks, and learn more about the habitat in which they live!



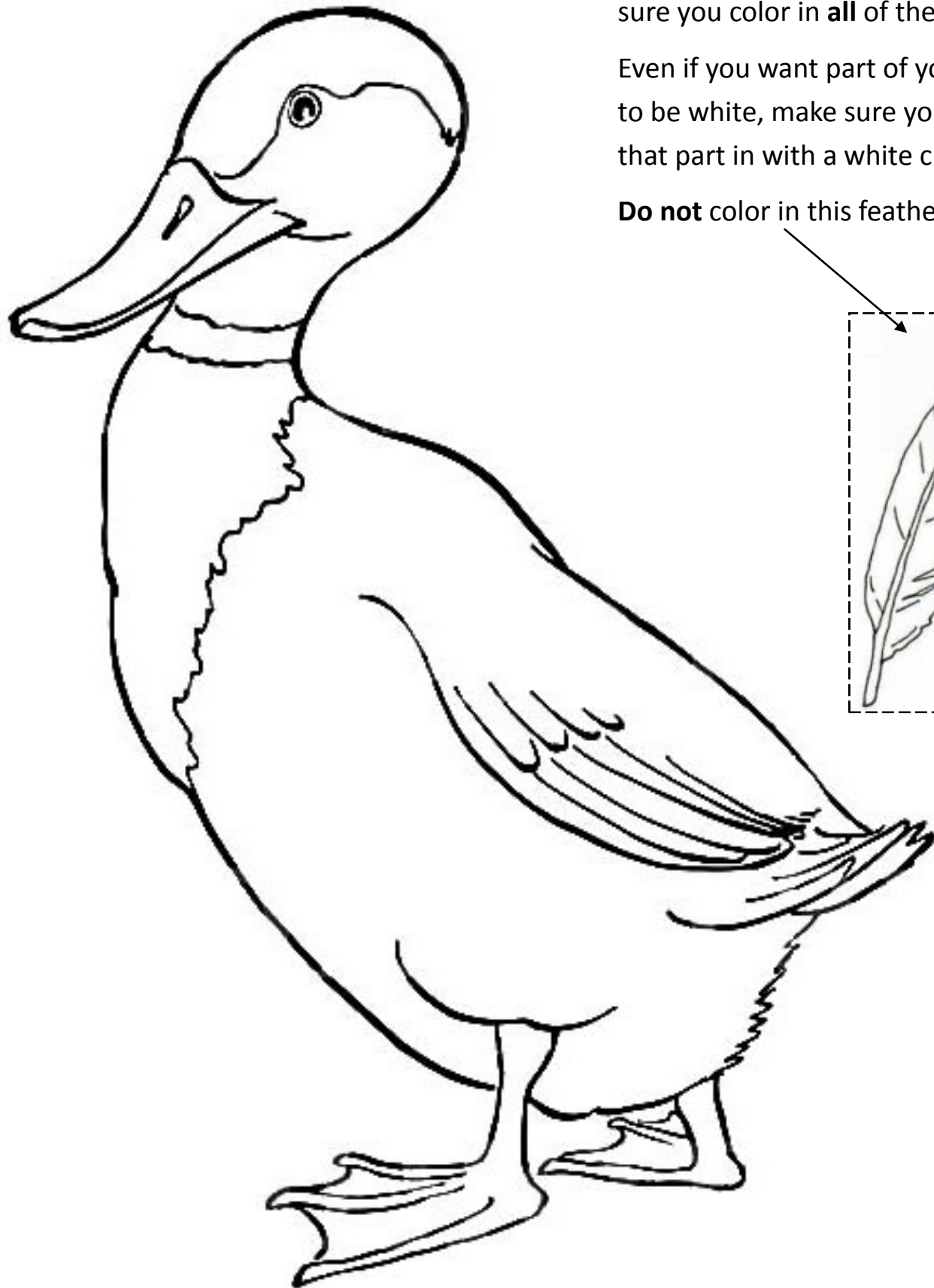
# HOW DOES A DUCK STAY DRY?

## Directions:

Color in your mallard duck. Make sure you color in **all** of the spaces.

Even if you want part of your duck to be white, make sure you color that part in with a white crayon.

**Do not** color in this feather.



## POST-VISIT ACTIVITY: Teacher Guide

### Monarch Life Cycle Project

#### Post-Visit Activity Objective:

After having completed this activity, students will be able to correctly relay the stages in a monarch butterfly's life cycle in sequence, and say on which kind of plants monarchs lay their eggs.

#### To begin the activity, share the following information with your students:

During our field trip to the Peoria Riverfront Museum, we explored the galleries and watched a movie called *Flight of the Butterflies 3D*. The movie told the story of a monarch butterfly named Dana and her very long flight to spend the winter in Mexico. We learned all about how these butterflies make such a long journey to a place they've never even seen before, and about how scientists figured out where they were spending the winter each year. To help us remember some of what we learned at the museum, we will be making a project today that tells us about the monarch butterfly's life cycle.

#### Information to share with your students:

Monarchs are large, beautifully colored butterflies that are easy to recognize by their striking orange, black, and white markings. They live in North, Central, and South America as well as Australia, some Pacific Islands, India, and Western Europe. The wingspan of a full-grown monarch can reach nearly five inches. Their markings include bright orange wings covered with black veins and rimmed with a black border and white dots. A monarch's brilliant coloring tells predators: "Don't eat me. I'm poisonous." The butterflies get their toxins from a plant called milkweed, which is their only food source in the caterpillar stage.

The most amazing thing about monarch butterflies is the enormous migration that North American monarchs undertake each year. Every fall, as cold weather approaches, millions of these delicate insects leave their home range in Canada and the United States and begin flying south. They continue until they reach Southern California or central Mexico, more than 2,000 miles away! Scientists aren't sure how migrating monarchs know which way to go, since they only live a few months and none make the journey more than once. Toward the end of winter, the monarchs in Mexico and California mate. The males then die, while the females head north, depositing eggs **on milkweed plants** along the way and eventually dying themselves. From these tiny, round eggs come small green-and-white-striped caterpillars, which feed on the milkweed leaves. For about two weeks, they eat constantly and grow by shedding their skin. They are then ready to transform into pupa. To become a pupa, also called a chrysalis, a monarch larva attaches itself with silk to a leaf or branch, sheds its skin, and forms a hard shell. This vase-shaped case starts out green with shiny golden dots and slowly becomes white, then see-through. After 9 to 15 days, a fully formed butterfly emerges.

The entire egg-to-butterfly process, called metamorphosis, takes about a month. Once out of the pupa, the damp butterfly inflates its wings with blood stored in its abdomen. It must wait for its wings to dry before it flies away. Adult butterflies don't grow. They survive by drinking nectar from flowers, including milkweed, clover, and goldenrod.

Monarch butterflies **ONLY** lay their eggs on the leaves of milkweed plants, which are most commonly found on the edge of farmers' fields or on the side of the road. Because it is a weed, most people will get rid of milkweed if they find it growing in their yard. When milkweed is harder to find, monarch butterflies don't lay as many eggs, which means their population starts to shrink. We can help the monarchs by planting milkweed in our yards!

(More information is available at <http://kids.nationalgeographic.com/animals/monarch-butterfly/#monarch-butterfly-grass.jpg>).

## POST-VISIT ACTIVITY: **Teacher Guide**

### **Monarch Life Cycle Project**

#### **Begin the activity:**

Today we are going to create a project that will help us remember the steps in the monarch butterfly's lifecycle. To do that, we will first color pictures of each of the steps: the eggs on a milkweed leaf, the yellow, black, and white striped monarch caterpillar, the green chrysalis, and finally the orange and black adult monarch butterfly. After our pictures are colored in, we will cut each of the pictures out along the dotted lines. Then, we will glue the pictures in the correct order onto our sequence worksheet.

#### **Supplies:**

- Butterfly lifecycle stages graphics (page 13) and project template (page 14)
- Butterfly lifecycle sequence template (pages 15 & 16)
- Crayons or markers
- Scissors
- Glue

#### **Instructions:**

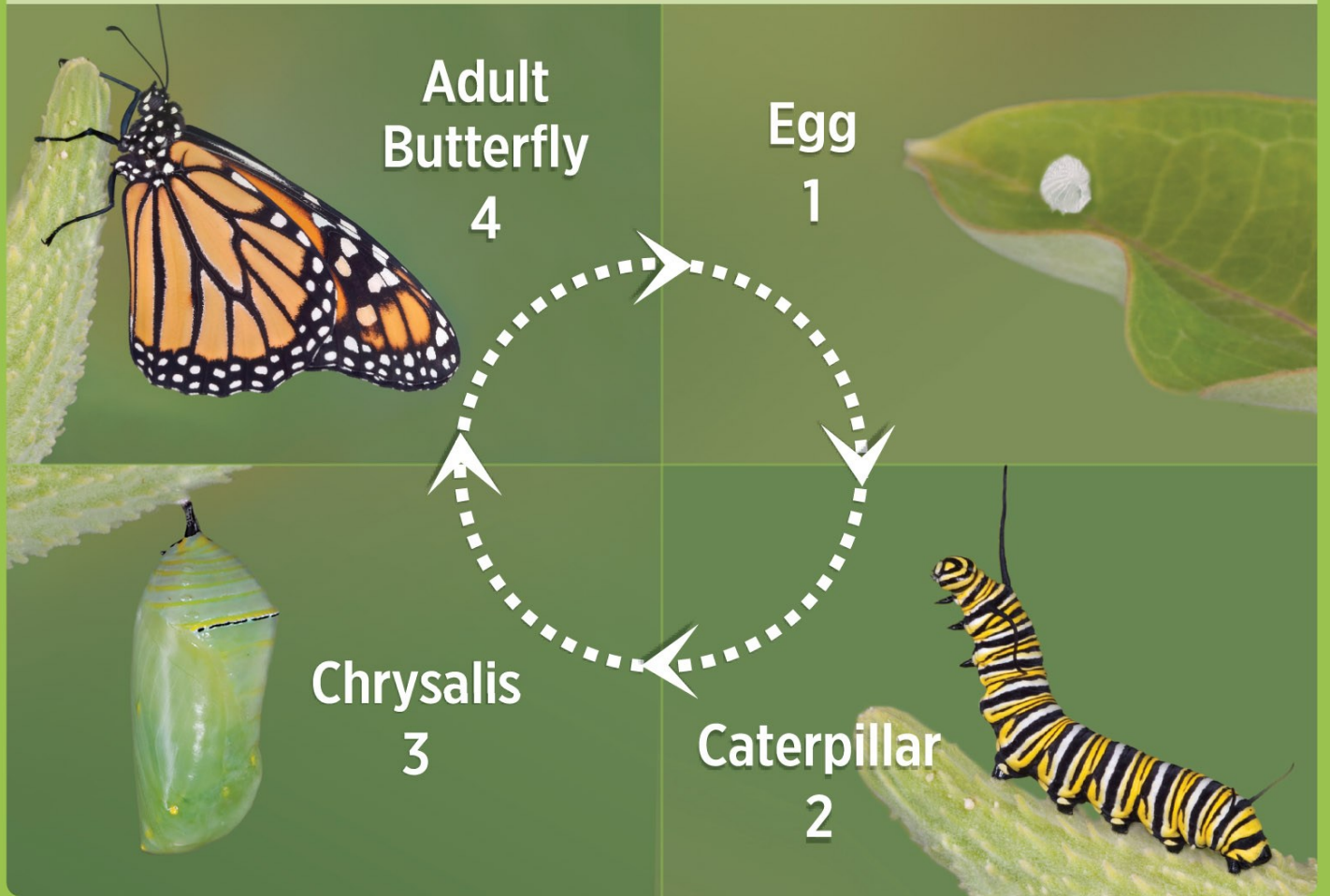
1. Pass out one copy of the life cycle worksheet found on page 10 of this packet to each student; pass out scissors and coloring supplies as well.
2. Allow students to color in the pictures of each of the four stages of the monarch life cycle. Encourage students to use realistic colors to color the pictures.
3. Instruct students to cut out the four pictures they have colored in by following the dotted lines.
4. Pass out one copy of the Life Cycle Sequence worksheet found on page 11 & 12 (please print this double sided) to each student.
5. Instruct students to cut along the three short dotted lines.
6. Instruct students to fold along the longest dotted line so that their paper is folded in half "hot-dog style" with the words "first," "next," "then," and "finally" facing the students.
7. Students may now take their colored pictures of the life cycle steps and glue them in the correct order underneath the corresponding flaps of their project. The order should be: egg, caterpillar, chrysalis, butterfly.

*Original Craft:* <http://www.tickledpinkinprimary.com/2015/04/my-students-are-loving-our-spring-units.html>

#### **Conclude the activity:**

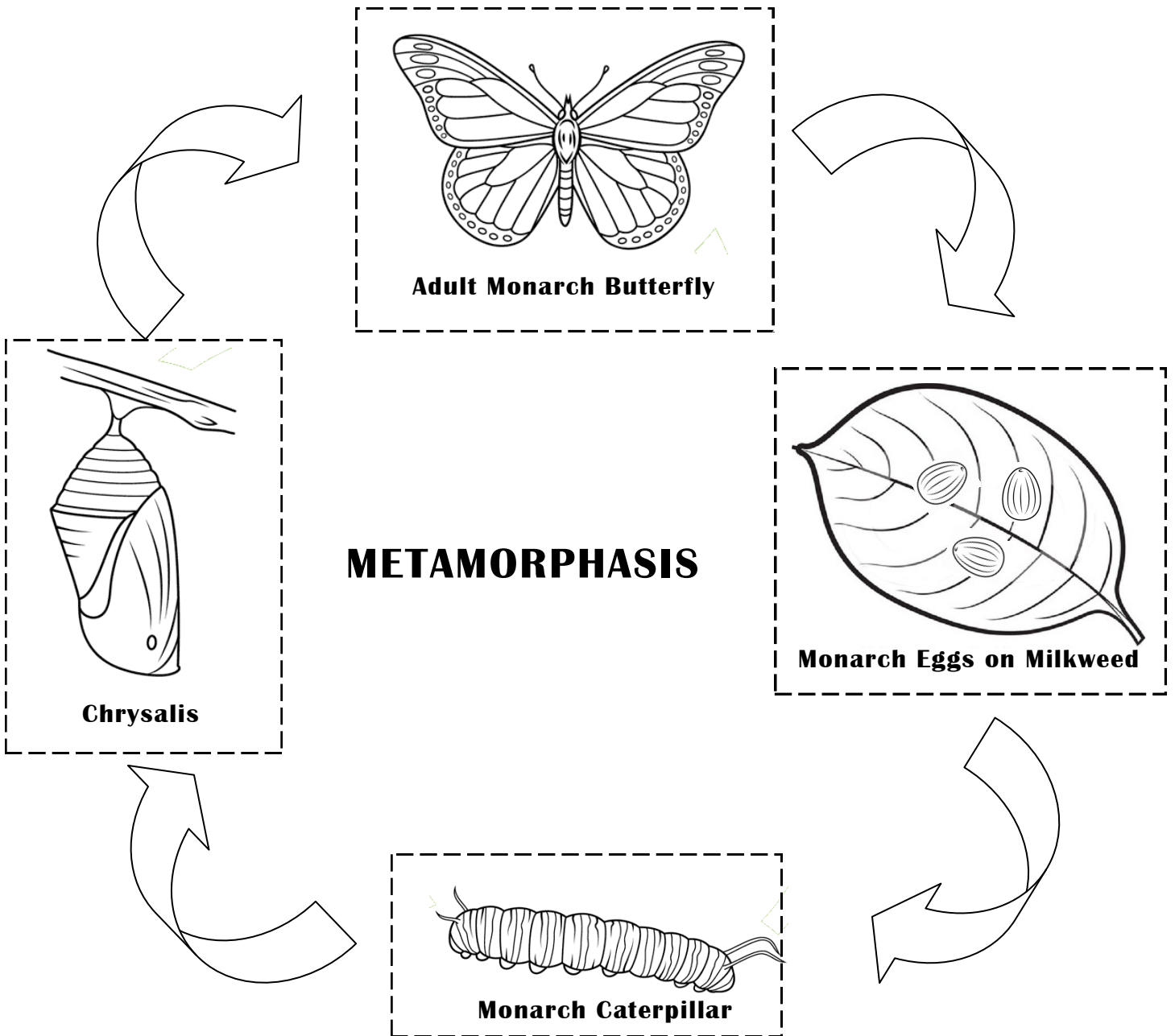
Monarch butterflies are the state butterfly of Illinois, but the population of monarchs in Illinois is shrinking. We can help the monarchs on their journey by planting milkweed so that they have a place to lay their eggs and food for their caterpillars to eat.

# THE LIFE CYCLE OF A MONARCH BUTTERFLY



# Life Cycle of a Monarch Butterfly

Color in the pictures of each stage of the monarch's lifecycle, then cut them out along the dotted lines. To finish your project, glue the pictures in the correct order onto your lifecycle sequence worksheet.





*Common Milkweed*

Fold

**LIFECYCLE OF A BUTTERFLY**

**First**

**Next**

**Then**

**Finally**



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