

Resource Guide

# Overture

A Performing Arts Series  
for Students

# *Onstage*



**Butterfly: The Story of a Life Cycle**  
Monday, March 23, 2009



## Overture Center FOR THE ARTS

# ABOUT OVERTURE CENTER FOR THE ARTS

Overture Center for the Arts fills a city block in downtown Madison with world-class venues for the performing and visual arts. Made possible by an extraordinary gift from Madison businessperson W. Jerome Frautschi, the center presents the highest-quality arts and entertainment programming in a wide variety of disciplines for diverse audiences. Offerings include performances by acclaimed classical, jazz, pop, and folk performers; touring Broadway musicals; quality children's entertainment; and world-class ballet, modern and jazz dance. Overture Center's extensive outreach and educational programs serve thousands of Madison-area residents annually, including youth, older adults, people with limited financial resources and people with disabilities. The center is also home to eleven independent resident organizations.

Internationally renowned architect Cesar Pelli designed the center to provide the best possible environment for artists and audiences, as well as to complement Madison's urban environment. Performance spaces range from the spectacular 2,250-seat Overture Hall to the casual and intimate Rotunda Stage. The renovated Capitol Theater seats approximately 1,100 and The Playhouse, designed for live theater, seats 350. In addition, three multi-purpose spaces provide flexible performance, meeting and rehearsal facilities. Overture also features several visual art exhibit spaces. Overture Galleries I, II, III display works by Dane County artists. The Wisconsin Academy of Sciences, Arts and Letters' Watrous Gallery displays works by Wisconsin artists, and the Madison Museum of Contemporary Art offers national and international artists.

### **Resident organizations**

Bach Dancing and Dynamite Society

Children's Theater of Madison

Kanopy Dance Company

Li Chiao-Ping Dance Company

Madison Ballet

Madison Museum of Contemporary Art

Madison Opera

Madison Repertory Theatre

Madison Symphony Orchestra

Wisconsin Academy of Sciences, Arts and Letters

Wisconsin Chamber Orchestra

### **Credits:**

*Executive Editor:* Beth Racette

*Written by:* Lauri Brenning with sections provided by Hudson Vagabond Puppets

*Designer:* Victoria Horn

**Teachers have permission to copy any and all parts of this guide**

Overture Resource Guides are available online at [www.overturecenter.com/onstage/guides.htm](http://www.overturecenter.com/onstage/guides.htm)



## BUTTERFLY: THE STORY OF A LIFE CYCLE

### TABLE OF CONTENTS

- 1 Dear Teachers Letter
- 2 About the Performance
  - About the Production Company: Hudson Vagabond Puppets
- 3 Theater Conventions
- 4 Vocabulary List
- 5 Pre-Performance Activities
  - Life Cycle of a Monarch Butterfly
- 9 Post Performance Activities
  - Dance: Create a Performance
  - Language Arts: Ode to Caterpillar
- 10 Additional Resources
- 12 Wisconsin Academic Standards
- 13 Theater Etiquette

### DEAR TEACHERS

This Spotlight on Learning: Educator's Resource Guide for *Butterfly: The Story of a Life Cycle* OnStage performance is designed to:

- Maximize students' enjoyment and appreciation of the performing arts;
- Extend the impact of the performance by providing discussion ideas, activities, and further reading that promote learning across the curriculum;
- Promote arts literacy by expanding students' knowledge of music, storytelling and theater;
- Illustrate that the arts are a legacy reflecting the values, customs, beliefs, expressions and reflections of a culture;
- Use the arts to teach about the cultures of other people and to celebrate students' own heritage through self-expression.

In this Resource Guide, you will find valuable information and suggestions for activities that can help prepare students to see this performance, ideas for follow-up activities and resources you can access on the web. We've also included Wisconsin Academic Standards for each activity in order to align the experience with your curriculum requirements.

### WE WANT YOUR FEEDBACK!

OnStage performances can now be evaluated online! Provide us with feedback and ideas that are important to you. Please share this web address with others in your party:

**[www.overturecenter.com/onstage/onstage.htm](http://www.overturecenter.com/onstage/onstage.htm)**

Click on the "Fill out an online evaluation form" at the bottom right side of the page. Evaluations are vital to the future and funding of this program. Your feedback educates us about the ways the program is utilized and we often implement your suggestions. We look forward to hearing from you.

Enjoy the show!  
Overture Education Team

## ABOUT THE PERFORMANCE

# “AND SO IT BEGINS AGAIN....” BUTTERFLY: THE STORY OF A LIFE CYCLE

Based on science with “flights of fantasy,” the story of the monarch butterfly makes for incredible drama although one hero of the story is not an insect or an animal at all, but a plant. Combining puppetry with song and dance, this performance

follows the transformation of a caterpillar, from its tiny egg under a milkweed leaf, to its amazing metamorphosis in the chrysalis and emergence as a beautiful monarch butterfly. With her companions’ help—including Emma (the ladybug),

an earthworm, and dragonfly—Monarch Butterfly learns about her symbiotic relationship with milkweed. Starting the cycle over again, as winter approaches, Butterfly eventually flies 1,500 miles to Mexico where she lays her eggs in the spring.

## ABOUT THE PRODUCTION COMPANY

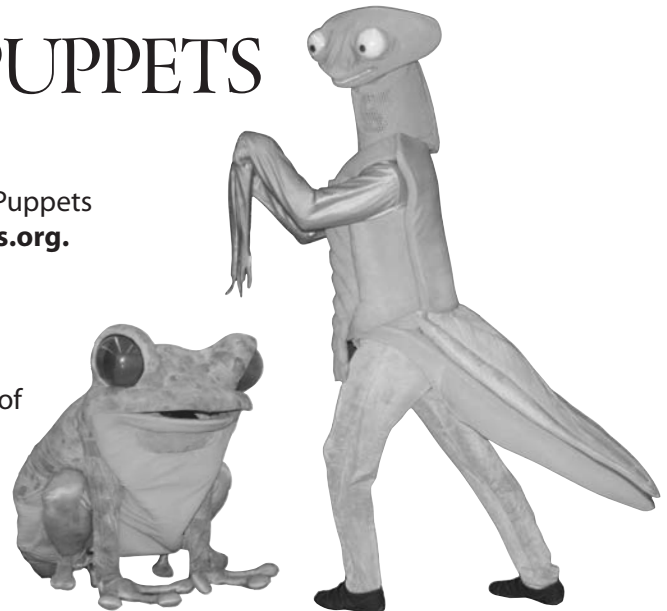
# HUDSON VAGABOND PUPPETS

Incorporated in 1980 as a not-for-profit company, Hudson Vagabond Puppets creates larger-than-life puppetry and mask programs designed to fit into the school curriculum as well as to entertain children and their families. With support from the Jim Henson Foundation, *Butterfly: The Story of a Life Cycle* has been created to magnify the microscopic insect world in an unforgettable larger-than-life bunraku-style musical performance.

### Getting Started:

Visit the Hudson Vagabond Puppets website at: [www.hvpuppets.org](http://www.hvpuppets.org). This site provides a good introduction to the artists and the performance.

View a nine minute preview of the *Butterfly* performance at: [www.youtube.com/hvpuppets](http://www.youtube.com/hvpuppets).



## ART ACTIVITY

### Where in the US is HV Puppets?

Research the 2009 *Butterfly: The Story of a Life Cycle* performance locations and dates at: [www.hvpuppets.org/booking/TouringSchedule.asp](http://www.hvpuppets.org/booking/TouringSchedule.asp)

- The 2009 Butterfly tour began on February 10 in Rolla, MO. and traveled all over the U.S. before their

performance in Madison. Plot the tour on a map. How many miles did they travel in total?

- If the artists performed this show 41 times during their 2009 tour, on how many days did they not perform while on the road?
- If there are four artists in the *Butterfly* show and 24 people in the production crew, how many hotel rooms will they need in each city of their tour if four people stay in each room?

- If each of the artists and crew members eat breakfast every day of the tour, how many breakfasts will they eat during the tour?
- If on one of their days off, two artists go hiking with three crew members, one artist goes shopping with four people from the crew, and ten members of the crew go to a movie, how many total artists and crew members will still be looking for something to do?

**Wisconsin Academic Standards: Math – Processes (A)**

# THEATER CONVENTIONS



Theater productions can be broadly divided into two categories based upon how they represent reality to the audience - presentational and representational. Although we all know that what happens on stage is not real, when we watch a play, we willingly suspend our disbelief. We let ourselves pretend that the characters are real people and not actors and that the events we see are actually happening. This is called representational performance, and in this format the artists strive to recreate reality on stage through the use of set designs, props, costumes and acting styles, which mimic real life.

In a presentational performance, the artists make a deliberate attempt to show the theatrical aspects of a production (set design, props, costumes and acting styles) in a non-realistic fashion. In other words, the audience is let in on the 'secret' of theater-making, with actions that are normally performed backstage being shown on stage to the audience.

This production of *Butterfly: The Story of a Life Cycle* is being performed in a presentational format. This style

of theater may be challenging to a young audience member, who is only familiar with theater's representational format, and they may have difficulty keeping up with what is happening on stage as the story is told. To prepare your students for this production, we recommend that you discuss the following theater conventions with your class, prior to attending this performance.

## Setting

The set design for this production is minimalist, and centered around a 10-foot tall screen that depicts close-up images of the plant world. The set and prop pieces consist of a whimsical giant milkweed leaf, a cocoon, and a flower petal, all constructed from plastic pipes covered with painted fabric.

## Performers

Four dancers portray all the characters, including a butterfly, caterpillar, dragonfly, bumblebee, horse fly, earthworm, beetle, grasshopper, bird and frog. Only the bird, frog, grasshopper and beetle are portrayed by dancers in costume. The remaining characters are puppets.



The butterfly puppet is operated by two people, one behind the other. The front puppeteer carries and operates the head and body with a flag pole holder. There is a pole that extends up into the head, which allows the puppeteer to turn the head from side to side. A bicycle brake lever operates the eyes. Bellows push air into the proboscis, which is made from a party favor blower. The back puppeteer has bamboo poles that manipulate the wings. The wings are made of a thin, wire frame, covered with painted fabric. The puppet characters of dragonfly, bumblebee and horse fly are operated by a single dancer in a similar manner.

The caterpillar is built like a giant slinky. There are steel rings covered with a sleeve of white fabric. The white fabric is layered with bands of yellow and black fabric. The puppeteer's hand slides inside the mouth in order to open and close it. There is a hole inside the mouth, which allows the puppeteer's hand to draw in the pieces of the leaf. The puppet characters of Emma (the ladybug) and the earthworm are operated in a similar manner.



# VOCABULARY LIST

**Asclepias**—the species of plants that the milkweed belongs to

**Chrysalis**—the case in which a caterpillar changes into a butterfly

**Danaus**—Classification of the genus of the Danaidae, which includes the monarch butterflies

**Filament**—a thread-like object, including the sensory tentacles of a caterpillar

**Hibernation**—spending part of the cold season in a more or less dormant state (sleeping)

**Larvae**—the newly hatched worm-like feeding stage of insect life which must metamorphose into an adult form

**Linneo**—Carlos Linneo created the classification system used in ecology

**Metamorphosis**—a change of physical form, structure or substance

**Migration**—a long journey, usually every year, from one region or climate to another for feeding or breeding

**Molting**—shedding of skin or exoskeleton

**Nectar**—A sweet liquid secreted by flowers of various plants

**Plexippus**—Classification of the species of monarch butterflies

**Pupa**—Caterpillar's life during transformation inside the chrysalis

**Proleg**—fleshy leg of a caterpillar used for gripping

**Oyamel**—type of fir forest in Mexico where monarch butterflies spend the winter

**Sanctuaries**—Places of protection

**Spinneret**—a gland in the caterpillar's mouth which creates the attachment for the caterpillar to hang upside down to create its chrysalis

**Spermatophore**—a mixture of sperm plus fat and other nutrients

**Stigmata**—scent glands found on the hind wings of male monarch butterflies

**Symbiotic**—a relationship in which two organisms (plants or animals) depend on each other for survival

**Tagging**—the act of marking an animal in order to keep track of its migratory patterns

## Word Finder

Language Arts Connection. Find the hidden words related to the monarch butterfly in the puzzle.

Look from left to right, right to left, top to bottom, and bottom to top.

1. Butterfly
2. Monarch
3. Danaus
4. Metamorphosis
5. Egg
6. Larvae
7. Caterpillar
8. Chrysalis
9. Pupa
10. Asclepias
11. Forest
12. Hibernation
13. Oyamel
14. Canada
15. Mexico
16. Linneo
17. Migration
18. Nectar
19. Plexippus
20. Sanctuaries

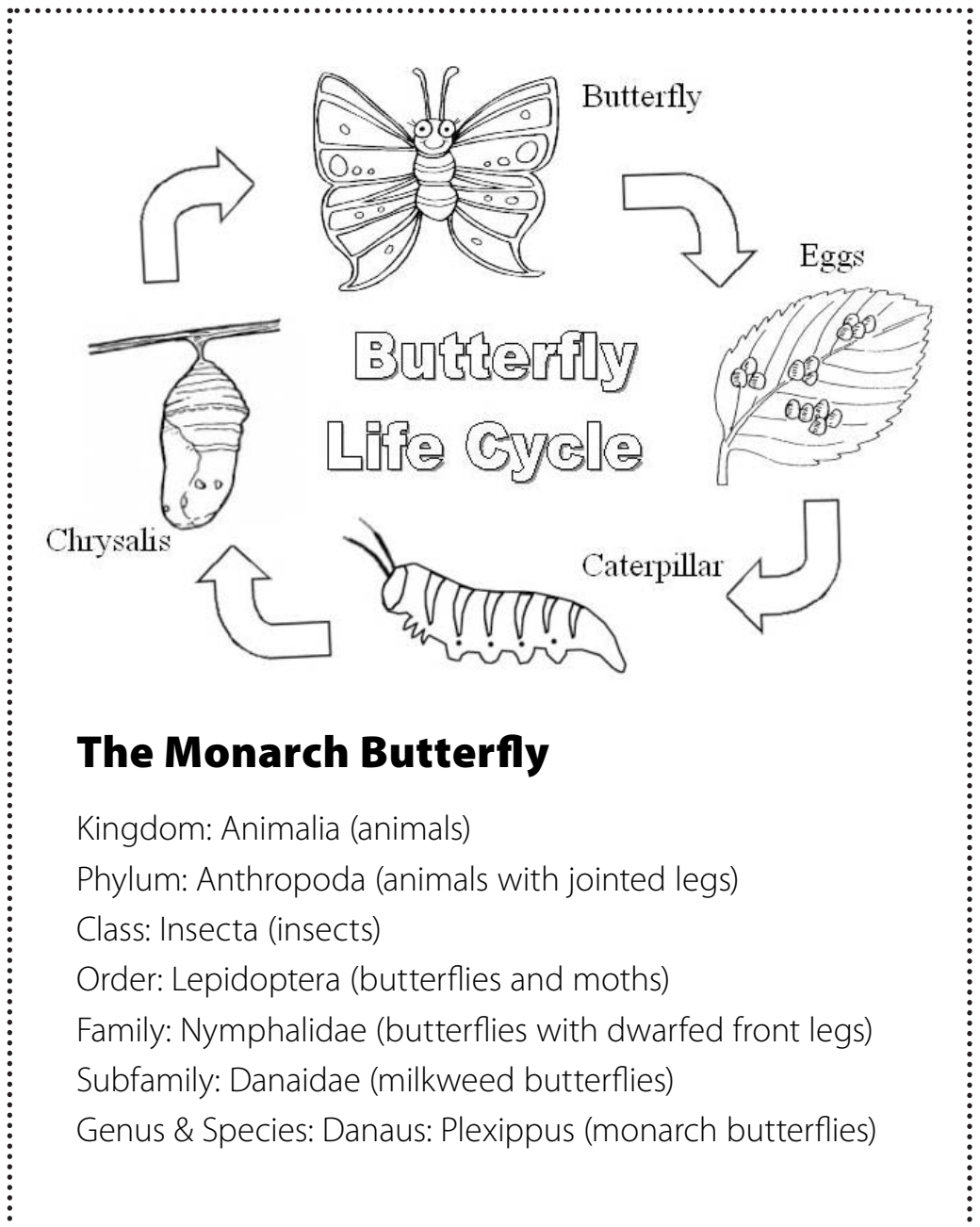
S	W	I	M	O	N	A	R	C	H	N	R	V	N	I
A	B	C	I	C	H	A	S	C	L	E	P	I	A	S
D	E	F	G	F	P	L	E	X	I	P	P	U	S	A
G	H	I	R	O	J	A	D	A	N	A	C	P	D	N
L	M	N	A	R	O	P	Q	O	R	S	A	U	A	C
B	U	T	T	E	R	F	L	Y	U	V	N	P	N	T
X	Y	Z	I	S	A	B	C	A	C	H	A	A	A	U
M	E	F	O	T	E	G	G	M	G	H	U	O	U	A
E	J	K	N	L	M	N	O	E	P	Q	S	C	S	R
X	C	A	T	E	R	P	I	L	L	A	R	S	T	I
I	S	I	S	O	H	P	R	O	M	A	T	E	M	E
C	U	L	A	R	V	A	E	V	W	X	Y	Z	A	S
O	B	C	C	H	I	B	E	R	N	A	T	I	O	N
D	E	N	G	H	I	S	I	L	A	S	Y	R	H	C
L	I	N	N	E	O	J	K	L	R	A	T	C	E	N

# LIFE CYCLE OF A MONARCH BUTTERFLY

## Getting Started

Guide a class discussion on the life cycle of butterflies.

- Ask students what they know about butterflies.
- Have they ever seen one?
- Have they ever touched one?
- What did it look like?
- Was it colorful?
- Ask students if they know what the butterfly was before it was a butterfly.
- What do caterpillars look like?
- How do you think they got to be caterpillars?
- What do they feel like?
- Are they furry? Slimy?
- How does a caterpillar turn into a butterfly?



## The Monarch Butterfly

Kingdom: Animalia (animals)

Phylum: Anthropoda (animals with jointed legs)

Class: Insecta (insects)

Order: Lepidoptera (butterflies and moths)

Family: Nymphalidae (butterflies with dwarfed front legs)

Subfamily: Danaidae (milkweed butterflies)

Genus & Species: Danaus: Plexippus (monarch butterflies)

## The Milkweed

This large leaf weed has a beautiful seedpod and scrumptious purple flowers that support bees and beetles as well as butterflies. For the monarch butterfly, it provides a home, food, and a special defense mechanism against predators. The monarch lays its eggs on the underside of the leaves which taste nasty to everything except the monarch. Once hatched, the newborn caterpillar eats them up for breakfast, lunch, and dinner. The monarch caterpillar and butterfly inherit the milkweed taste, making them an unwelcome meal to predators.



### Egg

A monarch takes one month to mature from an egg to an adult butterfly. An egg is about 3 millimeters long, spherical, ridged and white. The female lays about 400 eggs on separate milkweed leaves in the spring and summer. It takes about a week for each egg to hatch.

### Caterpillar

A newborn caterpillar is 2 millimeters long. First it eats the egg shell, then it eats the milkweed leaf that housed the egg, and then it keeps eating milkweed plant until it is 1/2 centimeter long and weighs 2700 times more than when it was hatched. It eats so much that its skin becomes too tight, so it sheds its skin for more room. Then it eats some more until its skin gets tight again and it repeats the process. This is called molting.

Eating the poisonous milkweed plant causes the caterpillar (and subsequently the butterfly) to be poisonous, which provides protection from predators. Its bright yellow and black stripes warn its predators that the caterpillar might be a dangerous meal. A caterpillar has 3 pairs of thoracic legs and 5 pairs of large prolegs, which are used to grip. It has 2 pairs of filaments, sensory tentacles, one on the head and one on the abdomen.

After about two weeks, the caterpillar becomes restless and leaves the milkweed plant in search of a safe transformation place. Once it finds a twig or leaf, it uses its spinneret, a special gland in its mouth, to weave a small silk button. It attaches its tail end to the lump and hangs upside down in the shape of a “J”.

## ART ACTIVITY

### Got Milkweed?

Visit [www.kidzone.ws/animals/color-caterpillar.htm](http://www.kidzone.ws/animals/color-caterpillar.htm) and print this drawing of a monarch caterpillar on a milkweed plant for your students to color.

**Wisconsin Academic Standards:**  
Visual Arts – Visual Thinking (H)

“Everyone except me knows what wonderful thing is going to happen. It’s like I’m turned upside down.”

— Caterpillar in *Butterfly*



## DRAMA ACTIVITY

**Hello World**—Pretend you are a tiny little caterpillar! You are growing inside the little white egg your monarch mother laid a few days ago on a delicious milkweed leaf. When the time is exactly right, you begin to chew a hole in the top of your eggshell. Your body has begun to grow and you are feeling very squeezed and cramped! There isn’t very much room left inside that eggshell. How exciting it is when you chew through the top of the shell. Keep chewing and when the opening is big enough, you can crawl out . . . push . . . tug . . . wiggle . . . squirm . . . squEEEEEEEEZE your way out! WOW

**Wisconsin Academic Standards:**  
Theater – Performance (B) Theater – Performance (B)



## Pupal Stage (Chrysalis)

The caterpillar wriggles for 5 hours to molt one last time until it looks like a giant, green droplet. This “droplet,” called a chrysalis, is about 3 or 4 cm long and slowly changes shape and color as the outer layer hardens into an emerald case with golden dots. Inside the chrysalis, the caterpillar’s body parts completely break down into a liquid and are reformed into the organs and wings of the butterfly. This change is called metamorphosis and takes about two weeks. The case becomes transparent and you can see the butterfly inside.

## Adult (Butterfly)

Once the butterfly breaks through, it clings to the casing of the chrysalis while fluids from the body are pumped into the veins of the wings, expanding

them. After a few hours, the wings are dry and the butterfly flies away. Adult monarchs have 2 pairs of bright orange-reddish wings that feature black veins and white spots along the edges. Their wingspan is about 4 inches and they weigh less than ½ an ounce. It takes five monarchs to equal the weight of one penny.

Males are slightly bigger than females and have scent glands called stigmata. You can see them as a spot of dark scales in the center of its hind wings. The females have broader black vein lines compared to the males. The butterfly obtains energy for flying by sipping nectar from flowers, such as milkweed, red clover, thistle and golden rod. It does this by uncoiling its proboscis, a long, flexible tongue that is used like a straw to sip the nectar.

## Migration

Most monarchs have a life span of four to five weeks, but a special generation born in late summer survives for seven or eight months. This generation makes the migration, the long journey south from Canada and the northern US all the way to Mexico, Cuba or southern California in search of warmer weather to survive the winter

## ART ACTIVITY

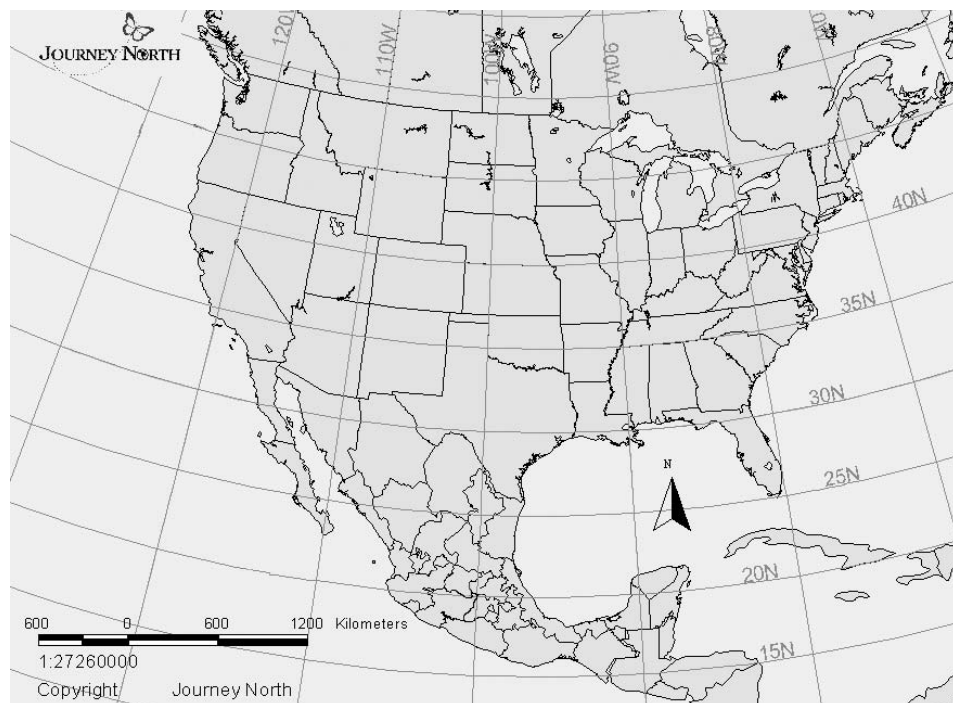
### Monarch in Flight

Visit [www.kidzone.ws/animals/monarch\\_color.htm](http://www.kidzone.ws/animals/monarch_color.htm) and print this drawing of a monarch butterfly for your students to color.

**Wisconsin Academic Standards:  
Visual Arts –Visual Thinking (H)**

Their migration is guided by the sun’s orbit. They have an internal, biological compass that functions according to the movement of the sun. Butterflies are most active from the morning until about 1pm, flying an average of 50 to 80 miles per day. During their journey, they are at great risk from predators and bad weather.

After about two months of traveling, they reach their destination at the end of October or beginning of November. From mid-November to mid-February they hibernate in giant clumps and then come down from the slopes to mate. It is their offspring that begin the trip back north.



## SCIENCE ACTIVITY

### The “Birth” of a Butterfly

View pictures and watch a video of the ‘birth’ of a monarch butterfly at: [www.monarchbutterflyusa.com/Chrysalis.htm](http://www.monarchbutterflyusa.com/Chrysalis.htm).

**Wisconsin Academic Standards:  
Science – Life and Environmental  
Science (F)**

## Reproduction

The courtship of monarch butterflies is fairly simple and takes place in two stages. During the aerial phase, the male pursues, nudges, and eventually takes down the female. In the ground phase, the male transfers its spermatophore to the female. For the over-winter population, the spermatophore contains sperm plus fat and other nutrients. This provides the female with energy to find the nearest milkweed plants to lay her eggs.

## MATH ACTIVITY

### From Egg to Egg

Create a time line that shows the complete monarch butterfly life cycle starting with the female butterfly laying an egg, to the caterpillar stage, creating a chrysalis, transforming into a butterfly, migrating to warmer climates, courtship, and—once again—laying an egg.

**Wisconsin Academic Standards: Math – Processes (A)**

## SCIENCE ACTIVITY

### Conservation

Monarchs are in danger. Humans have had a negative impact on their habitat for two main reasons:

1. There has been logging in the fir trees in the central Mexico highlands where the monarchs have their overwintering sites.
2. Milkweed is being cut away all over the US for development.

How can you help the monarchs?

Plant native milkweed and encourage others to do the same. Create monarch waystations, places that provide resources necessary for the monarch's survival. You can do this in home gardens, at schools, businesses, zoos, nature centers, along roadsides and other unused plots of land.

Write letters encouraging people to preserve the monarchs' sanctuaries, and plant milkweed and other plants for the butterflies. Help to educate the public on the importance of protecting monarchs and their habitat. Start locally! Mount a campaign in school or community groups to get the word out about the monarch butterfly.

Report sightings or tag monarchs. There are many unanswered questions about the fall migration of the monarchs east of the Rocky Mountains. In order for scientists to track the butterflies to learn about their patterns, they depend on the efforts of volunteer taggers to obtain sufficient data to answer these questions.

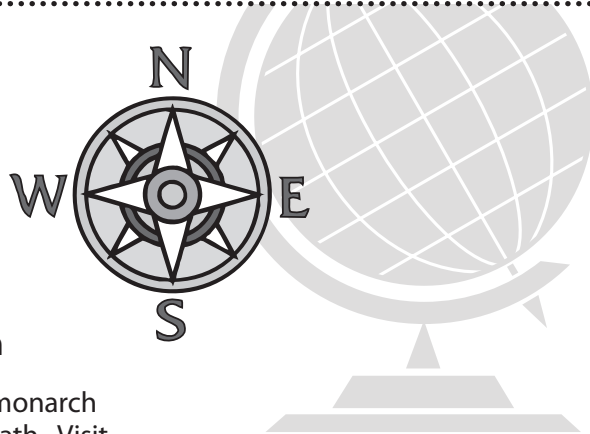
**Wisconsin Academic Standards: Science – Life and Environmental Science (F)**

## SCIENCE ACTIVITY

### Migration South

Create a map of the monarch butterfly migration path. Visit [www.learner.org/jnorth/images/graphics/maps/NorthAmericaBlank.gif](http://www.learner.org/jnorth/images/graphics/maps/NorthAmericaBlank.gif) and print a map of North America that includes lines of latitude. Review with students the location of the lines of latitude, and how to approximate location of some of the in-between lines of latitude -- for example, 27 North and 42 North. Next, share with students that each fall monarch butterflies fly from the cooler northern climates to warmer areas of California, Mexico, Texas, and Florida. Write on a board or chart the following information.

This data shows the approximate latitude of migrating butterflies throughout the fall migration:



August 15 - 49 North Latitude  
 September 1 - 47 North Latitude  
 September 15 - 41 North Latitude  
 October 1 - 35 North Latitude  
 October 15 - 29 North Latitude  
 October 30 - 25 North Latitude  
 November 1 - 20 North Latitude

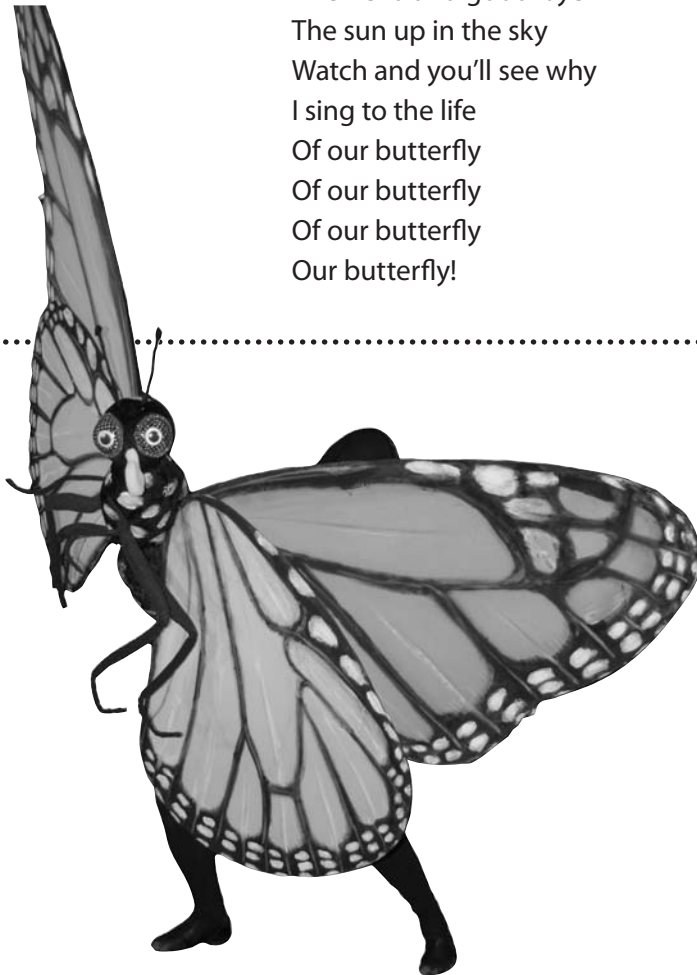
Have students draw on their maps the approximate locations of the lines of latitude listed above. Then have students use crayons or markers to color each band on their map a different color. Finally, have students create a map key that shows the approximate date represented by each band of color.

**Wisconsin Academic Standards: Science – Science Inquiry (C), Life and Environmental Science (F)**

## DANCE ACTIVITY

Create a dance performance using the lyrics to the theme song from *Butterfly: The Story of a Life Cycle*. Appoint a director of the production. Have each student (or pair of students) create a movement gesture about the life cycle of the butterfly. The director will determine which movements go with which words. The class can either memorize the lines or have one person read them aloud as the rest of the class performs the movement.

**Wisconsin Academic Standards:**  
**Dance – Improvisation (C),**  
**Choreography (D)**



### Butterfly: The Story of a Life Cycle

Round...round...and round it goes  
 For as long as I can recall  
 Round like a rubber ball  
 Like summer into fall  
 Round...round...and round it goes  
 Like a circle with no end  
 From here...to here...and then  
 It all begins again  
 And it happens over and over  
 But it's special...every one  
 From life...to life...to life...to life...  
 And a new one's just begun!  
 Round...round...and round it goes  
 Like hello and good-bye  
 The sun up in the sky  
 Watch and you'll see why  
 I sing to the life  
 Of our butterfly  
 Of our butterfly  
 Of our butterfly  
 Our butterfly!

## LANGUAGE ARTS ACTIVITY

### Ode to Caterpillar

Choose one of the following forms of poetry and create an ode to a caterpillar or a butterfly.

**Haiku** is a Japanese form of poetry which is usually about nature. The 17-syllable verse is formed by three lines. The first line consists of 5 syllables, the second has 7, and the third has 5.

**Limerick** has a highly controlled rhyming pattern. Lines 1, 2 and 5 rhyme; lines 3 and 4 rhyme.

**Couplet** contains a pair of lines of poetry that are usually rhymed.

**Diamante** is made of descriptive words that form the shape of a diamond. The first line is one word, the second line is two words, the third is three, the fourth is four, the fifth is three, the sixth is two, and the seventh is one. If you center all of the lines, the poem looks like a diamond.

**Wisconsin Academic Standards:**  
**Language Arts – Writing (B)**

## ADDITIONAL RESOURCES

Bringing the  
Magic of Monarchs  
to Your Classrooms, Homes  
and Communities.

The Monarch **Magic** Co.



MONARCH  
LIFECYCLE  
KITS

FUN  
MONARCH  
STUFF

ORDER  
FORM

WORKSHOPS  
AND  
PRESENTATIONS

LEARN THE  
LIFECYCLE

LINKS

FAQ

### University of Wisconsin-Madison Insect Ambassador Program

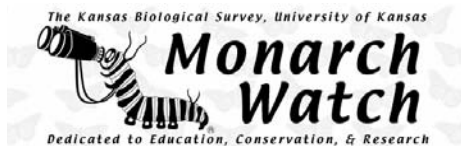
The UW Insect Ambassadors students volunteer their time to give interactive presentations about insects. Contact information for Insect Ambassadors:

UW-Madison Department of  
Entomology  
237 Russell Labs, 1630 Linden Drive,  
Madison, WI 53706

FAX: 608-262-3322

E-mail: [insectambassadors@  
entomology.wisc.edu](mailto:insectambassadors@entomology.wisc.edu)

[www.entomology.wisc.edu/  
insectam/index.html%20](http://www.entomology.wisc.edu/insectam/index.html%20)



### Monarch Watch

[www.monarchwatch.org/](http://www.monarchwatch.org/)

A cooperative network of students, teachers, volunteers and researchers dedicated to the study of the Monarch Butterfly. This site sells a Monarch Waystation Seed Kit with complete instructions on how to create a garden that will both attract and help monarchs on their migration. It also sells Monarch Tagging Kits (recommended for 2nd Graders and older), which contain instructions and materials to tag butterflies.

### Monarch Magic

[www.monarchmagic.com/](http://www.monarchmagic.com/)

Monarch Magic sells Monarch Life Cycle Kits, books and videos for the classroom.

### The Monarch Butterfly Sanctuary Foundation

[www.learner.org/jnorth/sm/about-  
mbsf.html](http://www.learner.org/jnorth/sm/about-mbsf.html)

This foundation is dedicated to protecting the Mexican overwintering grounds for the monarchs. This site also contains materials for teachers, an in-depth resource for teaching tools, classroom lessons and student materials.

### Friends of the Monarchs

[www.pgmonarchs.org](http://www.pgmonarchs.org)

Works to protect and preserve the area in and around Pacific Grove, California and throughout the world.

### Journey North

[www.learner.org/jnorth/](http://www.learner.org/jnorth/)

Journey North engages students in a global study of wildlife migration and seasonal change. K-12 students

share their own field observations with classmates across North America. They track the coming of spring through the migration patterns of monarch butterflies and other birds and mammals; the budding of plants; changing sunlight; and other natural events. Find migration maps, pictures, standards-based lesson plans, activities and information to help students make local observations and fit them into a global context.

### Raising Monarch Butterflies

[www.nicertutor.com/sketches/  
monarch/monarch.html](http://www.nicertutor.com/sketches/monarch/monarch.html)

Here you can find information on observing monarch butterflies in their native habitat.

### Monarch Butterfly USA

[www.monarchbutterflyusa.com/  
Cycle.htm](http://www.monarchbutterflyusa.com/Cycle.htm)

This website gives an in-depth view of the life cycle with pictures at every stage. It even includes a video of the butterfly emerging from the chrysalis and a map of migration routes.



NEWS THIS SEASON SIGHTINGS MAPS TEACHERS HOME

Welcome...Spring's Journey North is About to Begin!

February - June, 2009 >>



**Monarch Lab**

[www.monarchlab.org/default.aspx](http://www.monarchlab.org/default.aspx)

Here you can learn about the University of Minnesota Monarch Lab, the Monarchs in the Classroom program, plus find lots of information about the Monarch Butterfly. Monarchs in the Classroom is a program of University of Minnesota Extension and Department of Fisheries, Wildlife and Conservation Biology.

**Monarch Picture Story**

[www.kidzone.ws/animals/monarch\\_butterfly.htm](http://www.kidzone.ws/animals/monarch_butterfly.htm)

This site features crafts and jigsaw puzzles of the monarch butterfly.

**National Wildlife Refuge System**

[www.fs.fed.us/monarchbutterfly/conservation/index.shtml](http://www.fs.fed.us/monarchbutterfly/conservation/index.shtml)

This site is a resource for activities for teachers and students, identified by grade level from pre-k through 12th grade. It also contains in-depth information about the continental conservation of the monarch. [monarch\\_butterfly@fws.gov](mailto:monarch_butterfly@fws.gov)

**World Wildlife Foundation**

[www.worldwildlife.org/species/finder/monarchbutterflies/item3004.html](http://www.worldwildlife.org/species/finder/monarchbutterflies/item3004.html)

World Wildlife Fund, in collaboration with the Mexican Fund for the Conservation of Nature, has designed an innovative conservation strategy to protect and restore the monarch butterflies wintering habitat in Mexico.

**BOOKS**

**The Monarch Butterfly: Biology and Conservation**

by Karen S. Oberhauser (Editor); Michelle J. Solensky (Editor)

Covers of every aspect of the monarch butterfly's life cycle (breeding, migration, and overwintering) from the perspective of monarch populations worldwide.

**Monarch Magic! Butterfly Activities & Nature Discoveries**

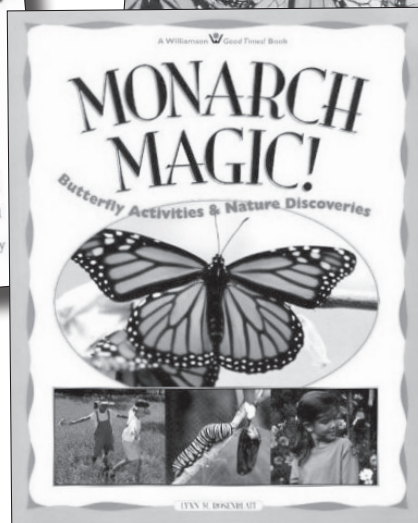
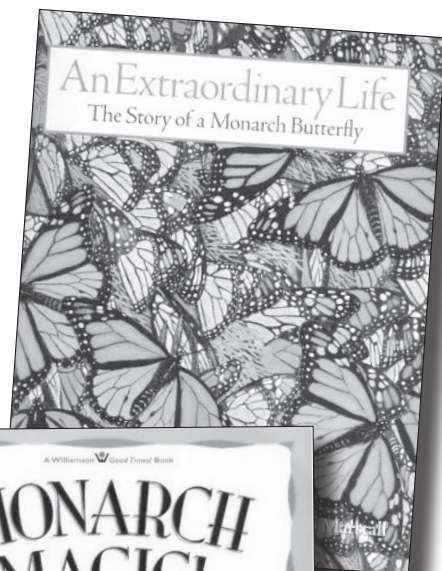
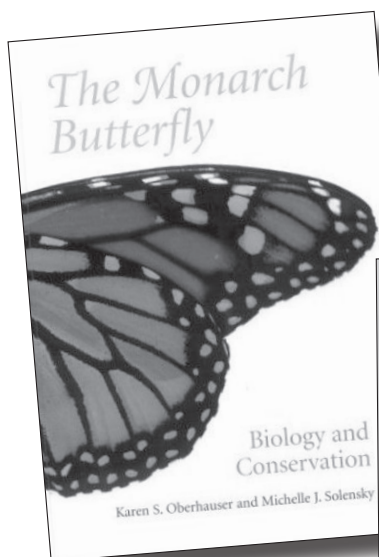
by Lynn M. Rosenblatt

This book is written by an elementary school teacher in easy-to-follow text and filled with more than 100 full-color photos.

**An Extraordinary Life: The Story of a Monarch Butterfly**

by Laurence Pringle with paintings by Bob Marshall

This is a biography of Danaus, a caterpillar who transforms into a monarch butterfly. The story is scientifically sound and includes an interesting account of the life of a monarch. The book contains realistic, full-color paintings of Monarchs in all stages of their development and their habitats. Colorful sidebars and a variety of maps are accompanied by informative captions.



## LANGUAGE ARTS

### Writing

B.4.1 Write creative pieces (poetry, fiction, and plays) employing basic aesthetic principles appropriate to each genre

## MATH

### Processes

A.1 Use reasoning abilities to—evaluate information, perceive patterns, identify relationships, formulate questions for further exploration, evaluate strategies

A.2 Communicate mathematical ideas in a variety of ways, including words, numbers, symbols, pictures, charts, graphs, tables, diagrams, and models

## THEATER

### Performance

B.1 Create a character through physical movement, adapting movement and making physical choices to fit the requirements of the scene

## VISUAL ARTS

### Visual Thinking

H.1 Study the patterns and color in nature

H.2 Use drawing to examine objects closely

## SCIENCE

### Science Inquiry

C.5 Use data they have collected to develop explanations and answer questions generated by investigations

C.6 Communicate the results of their investigations in ways their audiences will understand by using charts, graphs, drawings, written descriptions, and various other means

### Life and Environmental Science

F.1 Discover how each organism meets its basic needs for water, nutrients, protection, and energy in order to survive

F.3 Illustrate the different ways that organisms grow through life stages and survive to produce new members of their type

F.7 Investigate how organisms both cooperate and compete in ecosystems

F.8 Show through investigations how organisms both depend on and contribute to the balance or imbalance of populations and/or ecosystems, which in turn contribute to the total system of life on the planet

F.9 Explain how some of the changes on the earth are contributing to changes in the balance of life and affecting the survival or population growth of certain species

## DANCE

### Improvisation

C.1 Use improvisation to explore, discover, and invent movement

C.2 Improvise spontaneous dances using poetry, stories, and props

### Choreography

D.1 Create a sequence with a beginning, middle, and an end, with and without rhythmic accompaniment

D.5 Demonstrate the ability to work effectively alone, cooperatively with a partner, and in small groups

# THEATER ETIQUETTE AND EXPERIENCES

We have a wonderful opportunity at this performance to help youth learn about attending live performances.

Please discuss the following with your students:

1. Sometimes young people do not realize how a live performance differs from watching a movie or television show. A live presentation has not been pre-recorded with the mistakes edited out. This makes it riskier for the performer and more exciting for the audience. It also means the audience has a real contribution to make to the overall event. Each audience member affects those around him/her as well as the performer. Concentrate to help the performers. The audience gives energy to the performer who uses that energy to give life to the performance.
2. An usher will show you where to sit. Walk slowly and talk quietly as you enter the theater.
3. For safety's sake, do not lean over or sit on the balcony railings or box ledges. Please be careful on the stairs. Avoid horseplay and running throughout the building.
4. If necessary, use the restroom before the performance begins. Adults need to accompany young students.
5. You may talk quietly to the people next to you until the performance begins.
6. When the lights in the theater begin to dim, it is the signal that the performance is about to begin. Stop talking and turn your attention to the stage.
7. Stay in your seat throughout the entire performance.
8. During the performance, listen quietly and watch closely. Talking during the performance will distract other audience members and performers. Try not to wiggle too much and don't kick the seat in front of you. These disruptions make it hard for others around you to concentrate on the show.
9. Sometimes during a performance you may respond by laughing, crying, or sighing. By all means feel free to do so! LAUGHING IS APPROPRIATE. (Teachers, please do not hush the students while they are laughing.) If something is funny, it's good to laugh. If you like something a lot, applaud. This will let the performers know that you are enjoying the show.
10. At the end of the show, applaud to say thank you to the performers. The performers will bow to acknowledge your appreciation and thank you for coming.
11. When the lights get brighter in the theater, the show is over. Stay in your seats until your school is dismissed
12. Please remember:
  - Taking photographs and using recording devices are strictly prohibited.
  - Beverages and food, including gum and candy, are not allowed in the theater.
  - You are only one person among several hundred in the audience.
  - Please respect the performers and your fellow audience members.

Please inform your adult chaperons that ushers will be available throughout the performance if there are any difficulties.



## American Girl's Fund for Children

Funding for this resource guide and the OnStage Performing Arts Series for Students is provided by a generous grant from American Girl's Fund for Children, a philanthropic foundation created to support programs and services for school-age children in Dane County. Since its founding in 1992, American Girl's Fund for Children has supported programs in the arts, culture, and environment.

### OVERTURE CENTER FOR THE ARTS

Tom Carto, President

Susan Crofton, Vice President of Programming

Tim Sauers, Director of Education and Community Engagement

Beth Racette, Education and Community Program Coordinator

Lauri Brenning, Resource Guide Writer

© 2009 Overture Center for the Arts