

## **Teacher Instructions**

**Title:** Butterfly Life Cycles

**Grade Focus:** 2, 3, 4

**Subject:** Science

**Technology Integration:** Discovering the Internet

**Recommended Time to Completion:** 3-4, 45-minute class periods

**INTRODUCTION:** This is a cross curriculum lesson that introduces the life cycle of the butterflies as well as allows students to learn about another culture. The lesson introduces students to the area in Mexico where the monarchs migrate for winter. Students are introduced to the region, physical characteristics of the area, and the people who live there.

### **PREREQUISITE EXPERIENCE:**

Students will need to have basic knowledge of how to operate a computer if you are using a computer lab. They should have already been taught proper behavior in a computer lab.

### **TEACHER PREP TIME:** 1 – 2 Hours

This lesson is designed for the computer lab, however, if you don't have a lab, you can do it whole class with a link to your television, or other display mechanism, or at a literacy or science center if you have several computers in your room.

You will want to review the web site used for information, video clips, and audio segments about the monarch migration and the area in Mexico where the butterflies "winter." You may want to identify specific pages. The web site page is:

<http://www.learner.org/jnorth/tm/monarch/AboutFall.html>

You may collaborate with a technology teacher to prepare the lab (mark with bookmarks) or plan the demonstration in your classroom, being sure to have all necessary hook-ups and to bookmark the computers students will use.

Prior to the lesson, make sure your students have turned in the parental permission form for student use of the Internet. Group together any students who do not have permission and demonstrate the web site for them.

Review this training video from Nortel LearnIT

Discovering the Internet,

[http://nortellearnit.org/technology/Discovering\\_the\\_Internet/](http://nortellearnit.org/technology/Discovering_the_Internet/)

## **MATERIALS:**

- 5x8 index cards (or construction paper),
- *Gotta Go! Gotta Go!* By Sam Swope,
- chart paper for K-W-L chart,
- markers
- science journals
- sentence strip paper
- construction paper/ art supplies
- computer lab/ access to Internet
- large sheet of craft paper to make a class cluster map OR Inspiration software and an ability to project the screen image
- directions for the Virtual Migration (see the following link:  
<http://www.learner.org/jnorth/tm/symbolic/Make.html> )
- butterfly template
- Microsoft Paint program (From the "Start" menu, go to "all programs" then go to "Accessories," then click on "Paint.")
- color printer

*Tip: The folks at Journey North have VERY specific guidelines on the making and mailing of the butterflies. Read the information VERY CAREFULLY so that your students will not be disappointed in the spring.*

If you do not have access to the paint program and/or color printers, students can make the butterflies with traditional art media decorations.

## **PROJECT:**

This lesson begins the Life Cycles word wall/display and starts students wondering about butterflies and developing questions for the "Want to know" section of the K-W-L chart. In this lesson, students create butterflies and notes in Spanish to send on the Virtual Monarch migration.

**ASSESSMENT/GRADING:**

There are many different ways to evaluate student performance. Collect student journals and read the information students have learned about the area in Mexico where butterflies winter. Look for indications of misconceptions in their writing. What do students already know? What do they think is true that is not? Have students turn in their drafts of their friendly notes in English. Check for grammar errors and punctuation. Students may create two butterflies, one to send and one to keep.

**TIME MANAGEMENT TIP:**

Several parts of this lesson can be completed over different class periods. Consider including the readings during Language Arts class or drawing the 'imaginary' butterfly during Art class. Also, you can pair up or group the students to help facilitate the process.

## Engage

### Engage

This section can be completed on different days or during different classroom subjects.

1. Have you ever seen butterflies? Where did you see them? What did you notice about the butterflies? Have you ever studied butterflies before? As a class, read *Gotta Go! Gotta Go!* by Sam Swope. Discuss with your classmates what you learn from this book. Do you think all butterflies go to Mexico? What are things you would like to know about butterflies and how they live? Write your ideas and questions in your science journal.
2. You will be completing a KWL chart as you complete this lesson. The **K** stands for **Know**, which is the prior knowledge activation question. The **W** stands for **Will** or **Want**. What do I think I will learn about this topic? What do I want to know about this topic? The **L** stands for **learned**. What have I learned about this topic? Today, you will do the "W" section of the chart.
3. Identify some key words that you will use in writing about your caterpillars and butterflies. Help your teacher write these words on sentence strips and decide as a class where to display these words.
4. With a partner, draw an illustration for each word.
5. Who knows what the word "virtual" means? ("like-real"- using the computer we can take a virtual trip somewhere) You are going to virtually migrate with the monarchs to Mexico this year with butterflies that you are going to make! Your task today and tomorrow is to make a butterfly on the computer and write a thank you note, in Spanish, to a Mexican student who will take care of the butterflies while they are in Mexico. You are going to have to translate them into Spanish, since most people in that area do not speak English.

Consider using this web site to help translate.

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

6. Your teacher will read A Day in the Life of a Mexican Student to your class. This information will help you understand the daily life of children in the Monarch's wintering region. How is life different for children in this region of Mexico, than for you, here in your community?

## **Explore**

### **Explore**

1. The web site you are going to visit today has information about the monarch's migration to Mexico. It also starts off with questions to explore. If you think of additional questions as you read, write them down and add them to the K-W-L chart. Visit the following web site:  
<http://www.learner.org/jnorth/tm/monarch/AboutFall.html>  
On the first page-click on the "Wonder" section, "Where do Monarchs go for the winter?" Click on the red arrow that points to the spot in Mexico where they go. That takes you to a page with three options. Today you will focus on:
  - a. Where do the Monarchs go?
  - b. What is it like there?
  - c. How is the environment similar/different from the environment in your community?
2. Next, view the "Habitat" section. This section has video clips of butterflies and the area in Mexico. At the end of this session, write down information that you learned from the web site. Be sure as you explore that you are thinking about what information is new to you, and what you would like to remember.
3. Share what you have learned with your classmates. Add the new information learned to the K-W-L chart.

## **Explain**

### **Explain**

1. What is a life cycle? A cycle is like a repeating pattern. It is when something starts, goes through predictable stages or steps, and then the pattern starts again. In the life cycle of people, a baby is born, and grows from a child to an adult, and they have new babies to start the cycle all over again. Use a 5x8 index card or blank sheet of paper to draw what you think the life cycle of a butterfly looks like. Share these pictures with your class.
2. Now that you have learned lots of interesting things about monarchs and their winter habitat, you will begin your "virtual" butterfly migration. Open the butterfly template into the "Paint" program.
  - a. Open the "Paint" program
  - b. Click on "file" and "open".
  - c. Choose file with the butterfly template.
3. Explore the paint program and practice on a butterfly or two before you create a final butterfly to print.
4. When you have completed your butterfly, begin working on your thank you note to the students who will be taking care of your newly designed butterfly. Make sure your punctuation is appropriate and your message is appropriate.

## Elaborate

### Elaborate

1. Your group is going to be developing a cluster map (or bubble chart) about what we are learning. You will start by making a bubble in the center and label it "Butterfly Life Cycles." Then, you will draw a line off of this bubble and make another bubble at the end of it, and label it, "Monarch Migration." Who can share a big piece of information about the monarch migration? *Hint: What country did you learn about?* Now, who has information about the area they go to? Add bubbles to your chart around the "Mexico" bubble.

*If you have Inspiration Software you can do this on your computer instead of on craft paper. You can download a 30 day free trial of Inspiration or Kidspiration Software at: <http://www.inspiration.com/> "Created for K-5 learners, Kidspiration develops thinking, literacy and numeracy skills using proven visual learning principles. In reading and writing, Kidspiration strengthens word recognition, vocabulary, comprehension and written expression. With visual math tools, students build reasoning and problem solving skills. Across the curriculum, students express their creativity and thinking with pictures, words and numbers."*

## **Evaluate**

### **Evaluate**

You will be evaluated in several ways. Your student journals will be collected and assessed. Did you use vocabulary words when you wrote in your journal? You will also be assessed based upon your participation during the activities. Did you offer suggestions during the K-W-L chart?

## **Extend**

### **Extend**

Consider these suggestions for extending the lesson.

Have a “packing party” to ceremoniously pack the envelope to mail off to Journey North. Invite the parents, and serve Mexican treats.

Go home and talk to someone at home about what they know about butterflies. You may talk to a parent, a sibling, a neighbor, anyone you see when you are at home. You may also talk to more than one person to find out what people believe or know about butterflies. Using the attached Optional Homework Sheet, write down the information that people shared at home about butterflies. Did anything surprise you? Did you agree with everything people told you? On your homework paper right now, put a (+) sign in the box in front of information you believe is correct, and a (–) sign in front of information you believe is a misconception (a misconception is something someone believes is true, but is not quite correct).

The Day of the Dead, or La Dia de la Muertos, is celebrated when the Monarchs arrive. They arrive during the last corn harvest of the season. People in the region believe that the butterflies are the souls of their loved ones, returning for an annual visit. Some information about the celebration is at:

<http://www.learner.org/jnorth/tm/monarch/DiaMuertosTG.html>.

Research Dia de la Muertos and celebrate with some traditional recipes.

### **Related Resources**

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