

# Manchester College

Education Department

*Stephanie Alva*

Lesson Plan: adapted from Lynne Kepler

*Website:* <http://teacher.scholastic.com/lessonrepro/lessonplans/instructor/science2 .htm>

Lesson: Life Cycle of the Monarch Butterfly

Length: 45 minutes

Age or Grade Intended: 3rd Grade

## **Academic Standard(s):**

**3.1.3** Read aloud grade-level-appropriate narrative text (stories) and expository text (information) fluently and accurately and with appropriate timing, change in voice, and expression.

**3.1.6** Use sentence and word context to find the meaning of unknown words.

**3.2.2** Ask questions and support answers by connecting prior knowledge with literal information from the text.

**3.2.3** Show understanding by identifying answers in the text.

**3.4.2** Discuss ideas for writing, use diagrams and charts to develop ideas, and make a list or notebook of ideas.

**3.7.3** Answer questions completely and appropriately.

## **Performance Objectives:**

\*Each student will complete a K-W-L chart at the beginning of the lesson to show their prior knowledge with 100% accuracy.

\*The students will all participate by taking turns reading and showing the illustrations on the page when divided into the group read aloud with 90% accuracy.

\*Each student will write out and define the six vocabulary words on a sheet of paper with 95% accuracy.

\*Upon completion of the task, students will be able to show the 4 stages of a butterfly's life by illustrating it and explain what happens in each stage with 95%

## **Advanced Preparation by Teacher:**

1. The teacher needs to have five books of the *Monarch Butterfly* by Gail Gibbons. A book for the teacher along with four other books to use in groups will be used during the reading stage. (If the classroom is able to have enough books for each student that would be the ideal way to go, but otherwise the students may have to share the books in the group)
2. Make sure to have a K-W-L chart ready for the students to write in their knowledge in the introduction of the lesson.
3. Have the list of vocabulary words already on the blackboard, but cover them up with something like a pull down screen or map so the students cannot see the words before the read the book.

4. Have the cycle of the four stages already drawn up on their own piece of paper to refresh how they will draw the pictures of the four stages and the arrows to show that it is continuous.
5. Have the list of Bloom's Taxonomy questions for the conclusion of the lesson typed up on a piece of paper.

**Procedure:**

**Introduction/Motivation**

To gain the students attention, the teacher will introduce the lesson by asking questions about butterflies to see what the students know already. For example the teacher could ask, "What are some facts you already know about butterflies? (**Bloom's Taxonomy: Comprehension**) The teacher could also ask a question like, "What part of the year do we usually see butterflies? (**Bloom's Taxonomy: Knowledge**) They will do a K-W-L chart to show what they already know. Having the students write down what they know will help the teacher do part of the assessment before the actual lesson. I think K-W-L charts are a great way to assess the students as well as a way for the students to assess themselves. (5-7 minutes)

**Step-by-Step Plan:**

1. Now that the students are thinking about butterflies, read a little excerpt about monarch butterflies from the book called *Monarch Butterflies* by Gail Gibbons to begin the actual lesson. Then have a grand discussion making predictions on what the students think the book will be about based on the excerpt the teacher reads. (A good passage to start with would be the first two inside pages and then the page about the eggs, which the butterfly laid, hatching and crawling out is a small caterpillar.) (**Gardner's: Intrapersonal Intelligence**)(5 minutes)
2. Once the grand discussion is done divide the students up into four groups to read the book. While in the groups somewhere around the room on the floor, each student will read at least a few times until the book is finished, while showing the illustration. (During the reading on the floor the teacher will be walking around the room observing their social skills and reading fluency.) Then once the group is done reading have the students come back to their seats for the next part of the lesson. (15 minutes)
3. During this part of the lesson have the students write down the vocabulary words that were found in the book leaving space for the definitions. Have about five to six vocabulary words found by the teacher that were important in the text, such as caterpillar, chrysalis, larva, pupa, and metamorphosis. (Refer to the end of lesson for complete definitions) Some of these words are tough, but if the teacher explains the definitions by using context clues the students will see how to find the meaning of vocabulary. The teacher needs to model and show how to use the context clues. A great way of doing this would be to ask questions. For example ask, "Based on what the picture shows about a chrysalis in the book, how would you define this vocabulary word?" (**Bloom's Taxonomy: Evaluation**) (**Gardner's: Linguistic Intelligence**) (10 minutes)
4. For the last part of the lesson, have a discussion about how the butterfly develops through four stages of metamorphosis-egg, larva (caterpillar), pupa (chrysalis, and

adult (butterfly). Have the students draw the cycle of metamorphosis by using arrows to show how the process is continuous. Draw the four stages with them on the blackboard to help them see the process and make sure they understand how it is continuous. Along with the illustration write brief explanation by the picture. (There are also reproducible of graphic organizers that teachers can use and have the students fill out the stages, but see the picture already drawn for them. Either way is optional for the lesson), (Refer to the end of the lesson for the four stages of metamorphosis) The adult barely resembles the larval stage in appearance or behavior. This is known as a complete metamorphosis. (**Gardner's: Spatial Intelligence**) (10 minutes)

### **Closure:**

Now that the students know the main vocabulary words that provide vital information for the book's content, the students should connect those vocabulary words to what they just read, know the process of metamorphosis, and understand each vocabulary words meaning. To close do a quick review and end the lesson by asking some simple questions like, "What is the life cycle of monarch butterflies?" (**Bloom's Taxonomy: Knowledge**), "How would you define the vocabulary work chrysalis?" (**Bloom's Taxonomy: Comprehension**)

### **Adaptation:**

The teacher will divide the groups up by putting both lower and higher level fluency readers together. Allowing these different level readers to be together with higher level readers will allow the students to interact and help each other through the reading.

### **Enrichment:**

The vocabulary words are more likely to be at a higher level of reading, but defining these six words the teacher models how to find the meaning in the surrounding details of the sentence. Modeling this process is a great way for lower level readers to comprehend what they just read because the teacher is explaining how to find the meaning and then finally defining the each vocabulary words meaning.

### **Self-Reflection:**

*How do you know if you've done a good job?*

As a the teacher I will know if the students have done good job based on their answers to my Bloom's Taxonomy questions. Answering the questions gives me feedback and allows me to clear up any misconceptions that may be unclear or confusing to the students. I will also know if I have taught the four stages of metamorphosis well if the students illustrate the cycle correctly. Seeing their own cycles will show me what their thought process and where it may have went wrong if it did go wrong.

*How do you know if you've met your criteria?*

I will know if I have met the criteria by the objectives. Comparing the lesson from the beginning to the end of the lesson will definitely show the improvements of the students' knowledge about the metamorphosis of monarch butterflies. By comparing what the students knew before the lesson to what the students know after the lesson will hopefully show me if my students comprehend what I am teaching to them.

**\*\*\*Other Great Resources\*\*\***

<http://bsi.montana.edu/web/kidsbutterfly/welcome>

<http://www.butterflies.com/>

<http://www.exhibits.pacsci.org/insects/metamorphosis.html>

<http://www.butterflyschool.org/new/meta.html>

**\*\*\*Vocabulary definitions\*\*\***

**Caterpillar:** the larval stage of a butterfly or moth

**Chrysalis:** the hard shell covering the pupa; shaped like an upside down teardrop

**Larva:** the second stage of metamorphosis, during which an insect is wormlike and has new wings

**Pupa:** the third stage of metamorphosis; encased by a chrysalis

**Metamorphosis:** a series of developmental stages often marked by body changes

**\*\*\*Stages of Metamorphosis\*\*\***

**Stage 1:** The egg

**Stage 2:** The larva

**Stage 3:** The pupa

**Stage 4:** The adult