

In this lesson, students will get direct science experience by demonstrating knowledge of basic science concepts of physical science, life science, and earth and space science including and understanding of concepts related to everyday life through characteristic properties of objects, patterns and how they repeat, and cycles. Students will learn about the life cycle of a butterfly and successfully know the four stages (egg, caterpillar, cocoon, and butterfly) of the butterfly cycle. There are also art, math, language arts, and geography extensions that can be used with this lesson.

The Life Cycle of a Butterfly

Grade Level: K

1. Concepts: The life cycles of a butterfly.

2. **Objectives:**

- * Students will learn about the life cycle of a butterfly.
- * Students will successfully know the four stages of the butterfly cycle.

3. **Materials:**

- * Easel
- * Blown up picture of the "Life Cycle of a Butterfly"
- * White construction paper
- * Crayons or markers, and pencils
- * Scissors and glue
- * Copies of "Butterflies!" sheet for children from
<http://www.bry-backmanor.org/actpag36.html>
- * The book "The Very Hungry Caterpillar", by Eric Carle
- * Butterfly life cycle book made with pictures from
<Http://adver-net.com/Monemerg.html> and <http://www.monarchwatch.org>

4. **Procedures:**

A. Introduction

1. Explain to students that butterflies are insects that come in many shapes, sizes, and colors. I will then ask them what color butterflies they have seen. Most children are familiar with butterflies and will already have a mental image of them.
2. Show the students the blown up picture of the "Life Cycles of the Butterfly" that is placed on the easel and explain that they will be learning about these cycles and be expected to be able to draw and label, in order, these cycles.

B. Learning activities:

1. Ask the children to sit at the reading station and then read the book "The Very Hungry Caterpillar" to the children and show them the pictures. Read the book again and let them interact with the book and guess the words that you leave out to reinforce their knowledge of the four cycles (egg, caterpillar, cocoon, and butterfly).
2. Explain to the children that the first stage is called the egg stage and that The mother butterfly lays eggs on a leaf.
3. In the second stage the egg hatches on the leaf and a caterpillar comes out.
4. In the third stage the caterpillar will grow and pop out of it's skin to make room for it's larger size. After it does this four or five times it starts to spin a silk to make a cocoon on a leaf or a twig. It is here that the caterpillar turns into a butterfly.
5. In the fourth stage the butterfly breaks open the cocoon and lays very still To dry it's body and wings out. When it's dry the beautiful butterfly will fly away, and the cycle is started all over again.
6. Show the children the butterfly life cycle book and ask them to identify the cycles in each picture.
7. Let the children study pictures of the life cycle of a butterfly on the computer at <http://www.basilichi.it/lorenzi/butterfly/glif.htm> and read the text to them.
8. Show the children the "Butterflies" sheet and explain that they will be cutting out the butterfly and the circles showing the cycles, and then pasting the circles in the correct order on the butterfly. When they are done pasting the circles on they may color their butterflies.

C. Conclusion:

1. Ask the children what they have learned about the life cycle of a butterfly.
2. Ask the children to tell you what cycle comes first, second, third, and then fourth.

Evaluation:

1. Hand students the white construction paper and ask them to draw and label the life cycles of a butterfly. Tell them that when they are done they can color their pictures. These pictures may be displayed around the room after you have had a chance to check each one.

6. Extensions: (see attached papers for lessons)

1. For Art the children can create an Origami Butterfly and paint it and then you can hang them from the ceiling for all to admire.
2. For Math you can hand out worksheets of butterflies that are color coded by addition problems.
3. For Geography you could map out the migration patterns of butterflies and identify the states or countries.
4. For Language Arts the children can write a short story about butterflies.

"The *Very Hungry Caterpillar*", written by Eric Carle, web sites <http://adver-net.com>,
<http://www.monarchwatch.org> and <http://www.enchntedlearning.com> and
<http://ww.basilichi.it/loren2i/butterflv/glife.htni>.