



Bio/Diversity Project  
Lesson Title: The Lifecycle of a Butterfly

Teacher: Amber Maggi & Moïse Makabu  
Grade Level: Kindergarten

<b>Arizona State Science Standard:</b>	<b>K.LIU1.6:</b> <u>Obtain, evaluate, and communicate</u> information about how organisms use different body parts for survival. <b>K.LIU1.7:</b> <u>Observe, ask questions, and explain</u> how specialized structures found on a variety of plants and animals (including humans) help them sense and respond to their environment.
<b>Content Objective:</b> Math, Reading, Science, Writing, Other:	<ul style="list-style-type: none"> <li>● <i>Students will be able to draw the lifecycle stages of a butterfly.</i></li> <li>● <i>Students will be able to identify the pollen, eggs, larva and chrysalis of a butterfly.</i></li> <li>● <i>Students will be able to identify a native species caterpillar, White-lined Sphinx.</i></li> </ul>
<b>Language Objective:</b> (Optional)	N/A

<b>Vocabulary</b>		<b>Materials</b>		
Provide a bulleted, alphabetized list of words that students will hear, speak, write, and/or read about in the lesson. These words are integral to developing content understanding: <ul style="list-style-type: none"> <li>● Butterfly</li> <li>● Lifecycle</li> <li>● Eggs</li> <li>● Larva</li> <li>● Chrysalis</li> </ul>		Provide a bulleted list of relevant materials for the lesson. <ul style="list-style-type: none"> <li>● Blank paper</li> <li>● Colored pencils/markers</li> <li>● Pencils</li> <li>● “Butterfly, Butterfly” song by: Harry Kindergarten music</li> <li>● Pictures of real eggs, caterpillars, chrysalis</li> <li>● Lifecycle worksheets</li> </ul>		
<b>Seasonality:</b> Any season/spring works especially well.				
<i>Monsoons</i> July-Sept.	<i>Autumn</i> Oct.-Nov.	<i>Winter</i> Dec.- Feb.	<i>Spring</i> Mar.-Apr.	<i>Dry Summer</i> May-June
<b>Guiding Questions:</b> What do you already know about butterflies? What would you want to know about butterflies? Where have you seen a butterfly? Does anyone know what a pollinator is?				

**Engagement/Introductory Activity:**

- First, ask students whether or not they have ever seen a butterfly.
- Next, draw a KWL (know, would like to know, learned) chart on the board.
- Begin an open class discussion about what the students already know about butterflies and their lifecycle.
  - Refresh student’s memory of what a life cycle is.

- Have students raise their hands to add to the discussion and write their input on the board under the “K” column.
- Next, ask students what they would like to know about butterflies, filling in the “W” column.

**Exploratory Activity:**

- After the “K” and “W” columns are filled out on the board, play the song “Butterfly, Butterfly” by Harry Kindergarten Music, which explains the lifecycle of a butterfly.
- Pick out keywords from the song such as butterfly and caterpillar, chrysalis and egg. Include simple pictures and definitions of each word on the board or projector.  
(<https://www.youtube.com/watch?v=8rvGUevGxDk>)
- Next, show pictures of real butterflies’ caterpillars, chrysalis and eggs. Slowly pause in between pictures to check for understanding
- Pass out the lifecycle of a butterfly hand out along with colored markers and pencils and have students complete it independently

**Explain:**

- Come back together as a class and fill the “L” column of the KWL chart.
- Start out by asking students what they think the most interesting part of the lifecycle is and why.
- Then go back over the “W” column and check off all questions, making sure that everything was covered by the lesson.
- Review the stages of the butterfly lifecycle once again while doing this.
- Introduce the Sonoran Desert caterpillar, White-lined Sphinx based on what the students have learned and depict pictures of the caterpillar and the adult White-lined Sphinx to promote further understanding of its life cycle in the Sonoran Desert.

**Extension Activity/Questions:**

- Students will choose to observe an organism (plant or animal) native to the Sonoran Desert and make inferences on its lifecycle.
- Have students write on the back of their lifecycle of a butterfly worksheet the organism they chose and the inferences they made.
  - Encourage students to pick an organism different to that of the students sitting around them.
- Ask students to observe the differences in the organism they chose compared to the other students around them. How does this relate to Biodiversity?

**Evaluation Activity:**

- Check student’s lifecycle of butterfly worksheet for correctness.
- While checking student’s worksheets, ask them to repeat the lifecycle of a butterfly in their own words to check for understanding.