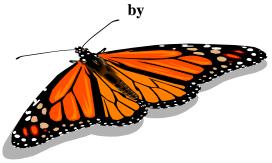
# The Lifecycle of the Butterfly A Thematic Unit that can be integrated into a larger unit on Cycles



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#### **Introduction:**

The purpose of this unit is to for the students to acquire general knowledge about different cycles in their natural world. The following 6 lessons will deal specifically with the lifecycle of the butterfly. The students will learn the anatomy of the butterfly, physical characteristics of the butterfly, and the proper terminology and vocabulary in regards to the butterfly. They will also experience, first hand, the metamorphosis of the caterpillar to a butterfly through the raising of live caterpillar larvae. The metamorphosis process takes about 3 weeks, throughout which the students will be keeping a butterfly observation journal. Each day the students will make a journal entry based on the observation of their individual larvae. Through this unit, the students will learn that a cycle is a continuous flow of changes that end in the same conclusion before repeating itself again. They will be exposed to a variety of specific cycles that occur in the natural world around them.

# **Outcomes/Objectives**

Upon successful completion of these lessons, the students will gain information about the butterfly species not already known. They will be able to identify and locate the anatomy of the butterfly. They will also be able to identify and sequence in order the stages of metamorphosis in the lifecycle of the butterfly. In addition, the students will learn the proper scientific terminology in regards to the anatomy and metamorphosis of the butterfly.

# Lifecycle of the Butterfly Lesson One

#### **Intoduction:**

The purpose of this lesson is to bring awareness of the knowledge that the students have acquired through their own experiences in regards to the subject of butterflies. This lesson will also help to guide exactly what information or questions the students would like to have answered by the conclusion of the unit.

# **Outcomes/Objectives:**

Upon successful completion of this lesson, the students will be aware of the knowledge that they already knew about butterflies, the knowledge that they want to know, and at the end of the unit, all the information and knowledge that they learned throughout the unit.

#### **Standards:**

**Standard 1: Reading-**-Students learn and effectively apply a variety of reading strategies for comprehending, interpreting, and evaluating a wide range of texts including fiction, nonfiction, classic, and contemporary works.

R-F3. Use reading comprehensionn strategies such as drawing conclusions, summarizing,

making predictions, identifying cause and effect, and differentiating fiction from nonfiction.

- PO 1. Draw conclusions based on the text.
- PO 2. Restate information from a reading selection.
- PO 3. Predict events, actions and behaviors using prior knowledge and/or details to comprehend a reading selection.

**Standard 2: Writing**--Students effectively use written language for a variety of purposes and with a variety of audiences.

- W-F1. Use the writing process, including generating topic, drafting, revising ideas and editing, to complete effectively a variety of writing tasks.
- PO 1. Generate topics through prewriting activities (e.g., brainstorming, webbing, mapping, drawing, writer's notebook, K-W-L charts, scaffolds, group discussion).
- W-F5. Locate, acknowledge and use several sources to write an informational report in their own words.
- PO 1. Use resources (e.g., video tapes, magazines, informational books, reference materials, interviews, guest speakers, Internet) and report information in their own words.

**Standard 3:** Listening and Speaking--Students effectively listen and speak in situations which serve different purposes and involve a variety of audiences.

• Use effective vocabulary and logical organization to relate or summarize ideas, events and other information.

**Standard 4: Viewing and Presenting**--Students use a variety of visual media and resources to gather, evaluate, and synthesize information and to communicate with others.

• Interpret visual clues in cartoons, graphs, tables and charts that enhance the comprehension of text.

## **Resources and Materials:**

A large piece of chart paper or butcher paper divided into 3 categories (KWL). A bold and bright marker. A variety of nonfiction books about butterflies.

#### **Process:**

This lesson works best as a group effort will continue to be a work in progress until the unit comes to a close. Have the students gather around you and the KWL chart. Explain to them that for the next few weeks they will be learning about a different kind of cycle, how a caterpillar becomes a butterfly. Explain to them the meaning of each of the letters KWL if they are not already familiar with them. Begin the first part of this lesson by first asking the students to close their eyes for a few minutes to think about all the things that they know about butterflies. Then have the students open their eyes and respond to the K part of the chart. Depending on the level of the students, it may be easier for the teacher to write the responses. After completing the K section, move into completing the W section. Upon completion of the K and W sections, explain to the students that more can be added to the KWL chart if they think of something else later. Show the students the various nonfiction butterfly books and explain that this is where we will find the answer to many of our questions about the butterflies. Invite the students to look at the books on their own time. Keep them in a place of easy access.

Throughout the course of the next few weeks, set aside 2-3 days a week to read parts of the nonfiction books. Read for 10-15 minutes each time. After reading, look back at the W section of the chart to see if any question was answered. If new information was learned through the reading add it to the L section of the chart. Continue to do this throughout the course of the unit. The reading at this time should be done by the teacher to the class as a group.

#### **Assessment:**

Due to the group effort of this lesson, an individual assessment is difficult. The purpose is not to test the students on what they have or haven't learned. The purpose of this lesson is to bring awareness to the students of knowledge that they already had and of the new knowledge they have acquired; therefore, an assessment is not needed for this particular lesson.

# **Extensions/Modifications/Accommodations by Disability:**

Each student could be asked to reflect on one or two of the most interesting things that they learned and to write a small summary about it and to illustrate it with a picture. Perhaps the modification of just an illustration could be made for specific students. For higher-level students, the teacher could allow them to write their own answer on the KWL chart as opposed to the teacher writing it for them.

# **Technology:**

Print out a list of butterfly related websites that the students could access to find information that might answer some of the questions in the W section of the chart.

# Lifecycle of the Butterfly Lesson Two

#### **Introduction:**

The purpose of this lesson is for the students to experience and observe the metamorphosis of a caterpillar to a butterfly. The students will be able to see the caterpillar make the changes as it goes from stage to stage and finally becomes an adult butterfly.

## **Outcomes/Objectives:**

Upon successful completion of this lesson, the student will be able to recognize, identify, and sequence the stages of the butterfly lifecycle. The students will also be familiar with and able to use the proper scientific terminology in regards to the stages of the butterfly lifecycle.

#### **Standards:**

**Standard 2: Writing**--Students effectively use written language for a variety of purposes and with a variety of audiences.

- W-F1. Use correct spelling, punctuation, capitalization, grammar and word usage, and good penmanship to complete effectively a variety of writing tasks.
- PO 1. Spell high frequency words correctly.
- PO 2. Punctuate ending of sentences.
- PO 3. Capitalize sentence beginnings and proper nouns.
- PO 4. Use standard, age-appropriate grammar and word usage (e.g., basic subject-verb agreement, complete simple sentences, appropriate verb tense, regular plurals).
- PO 5. Write legibly.
- W-F3. Write a personal experience narrative or a creative story that has a beginning, middle, and end and uses descriptive words or phrases to develop ideas and advance the character, setting and plot.
- PO 2. Write a story
  - --use sensory details to describe setting and characters.
  - --develop a story line with a problem and events leading to a solution.
- W-F4. Gather, organize and accurately, clearly and sequentially report information gained

from personal observations and experiences such as science experiments, fieldtrips

- and classroom visitors.
- PO 1. Record observations (e.g., logs, lists, graphs, charts, tables, illustrations).
- PO 3. Report events sequentially.

## **Resources and Materials:**

Each student will need a pre-made observation log. Each student will need a pencil for documenting observations and crayons for illustrating. This lesson requires actual live caterpillar larvae. I use the classroom package so that each student may have their own larva to observe; however, the regular package can be substituted, but the students will be very crowded while making their observations. You will also need a large container of some sort to transfer the chrysalis to. Usually, the package will provide you with everything you need to raise the butterflies. Also needed are copies of page 14 (attached), A butterfly story starter, and writing paper.

#### **Process:**

On arrival of the larvae, the teacher will have to prepare the larvae for each individual student by following the directions that come with the larvae package. This lesson will be ongoing until the adult butterfly emerges from it's chrysalis. The process takes about 3 weeks. Each day the students will observe their larva and record their findings in the observation log. They will also add an illustration to go along. Encourage them to look for something different each day, so that the entries are not always the same. The students will continue to make daily entries until their larva has transformed into an adult butterfly.

Once their adult butterfly has formed they will then create a butterfly story about where the butterfly will fly to when it is set free. Give the student a copy of page 14, a butterfly story starter, and allow him or her to make the butterfly manipulative. After completing the butterfly manipulative, the student is to create a story about where his or her butterfly will fly to when they let it go. They must include these words in their story: beautiful, fly, away, wings, sky, and bright.

#### **Assessment:**

The actual observation log will not be assessed. The butterfly story will be assessed using the 6 trait developmental writing rubric. The student will also have the opportunity to share their story with the class during the shared writing period. The student will be assessed on the ability of sequencing the stages of the lifecycle. The student will do so by placing sequence cards in the correct order and verbally telling the name of each stage.

## **Extensions/Modifications/Accommodations by Disability:**

The observation log can easily be modified to favor higher-level and lower-level students. It allows the freedom for students to expand the expectations. For the special ed. student or the severely LEP student the observation log allows them to convey the knowledge and recording through illustration only, if needed. Other resources, such as word walls, dictionaries, and informational books, are always welcome for all students to use as needed.

#### **Technology:**

Provide a print out of websites that are butterfly related where students can receive further information on the topic. Allow the students to use a cd-rom encyclopedia as a resource for further information also.

# Lifecycle of the Butterfly Lesson Three

#### **Introduction:**

The purpose of this lesson is to provide the students with reinforcement of the stages of metamorphosis while they are also observing with their own larva. This lesson will provide further understanding and reinforcement of the concepts being learned and observed already.

# **Outcomes/Objectives:**

Upon successful completion of this lesson, the students will be familiar with and using the correct terminology when referring to the lifecycle of the butterfly. They will have a clear understanding of the sequence of metamorphic stages. They will also have the understanding that the lifecycle is nothing more than a circle of constant changes that continually repeats itself.

## **Standards:**

**Standard 1: Reading**--Students learn and effectively apply a variety of reading strategies for comprehending, interpreting, and evaluating a wide range of texts including fiction, nonfiction, classic, and contemporary works.

- R-F1. Use phonetic skills to decode words
- PO 1. Decode words in context using beginning, middle and final letter/sound relationships.
- R-F2. Use word recognition and decoding strategies such as phonetic skills, context clues, picture clues, word order, prefixes and suffixes to comprehend written selections.
- PO 1. Derive meaning from a written selection using reading/decoding stategies:
  - --phonetic clues
  - --context clues
  - --picture clues
  - --word order
  - --structural analysis (e.g., prefixes, suffixes)
  - --word recognition
- R-F4. Identify facts and the main idea, sequence events, define and differentiate characters, and determine an author's purpose in a range of traditional and contemporary literature.
- PO 2. Sequence a series of events from a reading selection.

**Standard 2: Writing**--Students effectively use written language for a variety of purposes and with a variety of audiences.

- W-F2. Use correct spelling, punctuation, capitalization, grammar and word usage, and good penmanship to complete effectively a variety of writing tasks.
- PO 5. Write legibly.

**Standard 3: Listening and Speaking**--Students effectively listen and speak in situations which serve different purposes an involve a variety of audiences.

- Use effective vocabulary and logical organization to relate or summarize ideas, events and other information.
- Give and follow multiple-step directions.

### **Resources and Materials:**

The students will each need scissors, glue, pencil, and crayons. Each student will also need a copy of The Butterfly Book worksheet packet.

#### **Process:**

This lesson should be broken up into small parts. I usually finish the book with in a week. We do 1-2 pages at a time, and then go back over them, rereading them several times. The book is an interactive book requiring participation by both student and teacher. It is done best in small groups or as a whole class together. Simply take it day by day, page by page. The teacher needs to constantly monitor the classroom to ensure that all students are kept on task and stay with the pace set by the teacher. She will also need to monitor to helps those students who have questions or don't quite understand.

#### **Assessment:**

This lesson provides the students with information to reinforce what they are observing from their live larva. I do not intend that they be assessed on this information at this moment; however, the information and practice given to this lesson will be helpful for future assessments.

## **Extensions/Modifications/Accommodations by Disability:**

A good extension to this lesson would be to view an insect video that goes into great detail about the metamorphosis process and uses actual footage to show it. This lesson can be modified in many ways to accommodate a variety of situations. The fact that the book involves cutting and pasting allows severely LEP students or students with other disabilities to be able to portray their knowledge through performance rather than reading and writing alone. The word bank also helps students by narrowing their choice of options. The word bank is very helpful to LEP students who understand the concepts but haven't yet grasped the vocabulary to express it. Since this is an active participation lesson, students don't have to rely on themselves alone. They may use other students and the teacher as resources as well. This lesson can challenge the gifted students by pairing them up with a less capable student to help guide.

#### **Technology:**

Allow the students to use the computer, under an art type of program (kid pix), to design their own butterfly. They could even draw the metamorphic stages that happen previous to the adult butterfly.

# Lifecycle of the Butterfly Lesson Four

#### **Introduction:**

The purpose of this lesson is to give the students the skill of plotting coordinate points on a graph. They will be required to locate the point and plot it according to the directions given. This lesson gives great attention to listening skills. Other math concepts that are intertwined are patterns and symmetry.

## **Outcomes/Objectives:**

Upon successful completion of this lesson, the students will gain the skill of finding a coordinate point and plotting it on a graph. They will also have to use the skill of listening to know what they need to do at that coordinate point. They will discover that upon the completion of the butterfly art graph that it is symmetrical in design, and many students will catch on to this well before it is completed.

## **Standards:**

**Standard 3: Listening and Speaking**--Students effectively listen and speak in situations which serve different purposes and involve a variety of audiences.

- Use effective vocabulary and logical organization to relate or summarize ideas, events and other information.
- Give and follow multiple-step directions.

**Standard 2: Data Analysis and Probability**--Students use data collection and analysis, statistics, and probability to make valid inferences, decisions an arguments and to solve a variety of real-world problems.

2M-F2. Construct, read and interpret displays of data to make valid decisions, inferences,

and prediction.

- PO 5. Locate points on a line graph (grid) using ordered pairs.
- PO 6. Draw Conclusions (e.g., valid decisions, conjectures and predictions) from graphed data.

**Standard 3: Patterns, Algebra, and Functions**--Students use algebraic methods to explore, model and describe patterns, relationships and functions involving numbers, shapes, data and graphs within a variety of real-world problem-solving situations.

- 3M-F2. Formulate generalizations about patterns (e.g., color, shape, size, direction, orientation) to make predictions.
- PO 1. Make predictions based on a given pattern.

#### **Resources and Materials:**

Each student will need a pencil, crayons, and a copy of the butterfly art graph. The teacher will need the an overhead, an overhead transparency of the butterfly art graph, and overhead markers.

#### **Process:**

Before beginning, the students must be prepped about the importance of listening in this activity. If they do not listen then their butterfly will not turn out properly. The students must also be shown how to locate the coordinates before beginning. Have the students take notice of the numbers along the left hand column and the row of letters along the bottom. The teacher should demonstrate first on the overhead how to locate a coordinate. The best way that I have found is to use your fingers. For example, to find the coordinate 2C, place one finger on the 2 and another finger from the other hand on the C. Slowly, move the fingers in their proper directions until they meet and touch. That is the coordinate 2C. Next have the students locate the same coordinate 2C. Then have the students practice finding other coordinates that you tell them for practice. Once the majority of the class is able to locate coordinates, the teacher can now begin the lesson. The teacher will call out a random coordinate, the students will find it and then listen for the instructions of what to do in that coordinate. For example, "Find 6H and put three orange polk-a-dots inside it." So the students will find it and put 3 orange polk-a-dots, just as the teacher said. The teacher will give some "wait time" and then do the same on the overhead transparency so that the students can self-check and stay caught up. The teacher continues until all the boxes are filled. The teacher must be sure to make a symmetrical design (one wing is an exact reflection of the other). After a while, the students will pick up on the pattern. When the teacher gives one coordinate, they will immediately find it's corresponding coordinate and be one step ahead. They also will like to make predictions in regards to which coordinate the teacher will call next. It's a fun activity.

## **Assessment:**

The lesson is an assessment in itself. The teacher will be able to tell instantly who is listening and following instructions. The teacher will also be able to tell who has a grasp on the concept of locating and plotting points by a simple glance of the student's final product. Many times the most difficult part of this lesson is listening and following directions. This lesson also gives the teacher an idea of which students can predict and truly understand the concept of symmetry.

## **Extensions/Modifications/Accommodations of Disability:**

An extension to this activity would be to allow the students to create their own symmetrical butterfly using a new butterfly graph art paper. Since this is a math embedded lesson, LEP students should be able to perform. Yes, they may have difficulty listening to and following the directions; however, that is the reason for the use of the overhead. They are able to check themselves and remain on task by referring to the overhead as a resource. This lesson allows the freedom for the gifted students, who catch on very early to the symmetrical pattern, to go ahead and complete the butterfly without the assistance of the teacher. Another way to enrich the higher students is to have them help the other students that don't understand it or are having difficulty.

#### Technology:

Have student write a descriptive paragraph or poem on the computer about their butterfly.

# Lifecycle of the Butterfly Lesson Five

#### **Introduction:**

The purpose of this lesson is for the student to create, identify and sequence the stages of metamorphosis in the lifecycle of the butterfly.

# **Outcomes/Objectives:**

Upon successful completion of this lesson, the student will be able to identify, verbalize, and sequence the stages of metamorphosis in the lifecycle of the butterfly.

#### **Standards:**

**Standard 2: Writing**--Students effectively use written language for a variety of purposes and with a variety of audiences.

- W-F2. Use correct spelling, punctuation, capitalization, grammar and word usage, and good penmanship to complete effectively a variety of writing tasks.
- PO 1. Spell high frequency words correctly.
- PO 2. Punctuate endings of sentences.
- PO 3. Capitalize sentence beginnings and proper nouns.
- PO 4. Use standard, age-appropriate grammar and word usage (e.g., basic subject-verb agreement, complete simple sentences, appropriate verb tense, regular plurals).
- PO 5. Write legibly.
- W-F4. Gather, organize and accurately, clearly and sequentially report information gained

from personal observations and experiences such as science experiments, fieldtrips

and classroom visitors.

- PO 1. Record observations.
- PO 3. Report events sequentially.

## **Resources and Materials:**

Each student will need a large piece of construction paper (I use white). Each student will need water color paints (or substitute real leaves), pencil, scissors, and glue. In addition each student will also need a few grains of white rice, a few spiral macaroni noodles, a few small shell macaroni noodles, and a few bowtie macaroni noodles. The rice and noodles represent the different stages of metamorphosis (rice=egg, spiral=caterpillar larva, shell = chrysalis, bowtie = adult butterfly)

#### **Process:**

Start by distributing the materials to the class. Demonstrate how to fold the paper into fourths. Instruct the students to do the same and to cut their rectangles apart. They should have 4 separate rectangles in front of them. Explain that the students will be creating the stages of metamorphosis from the rice and noodles. Show each type of noodle and explain what it represents. Complete the first stage with the students as an example of how they will continue with the rest of the stages. On each paper rectangle the student will paint a leaf. For the first stage the student will glue the rice on the underside of the leaf. This represents the egg stage. Have them write in a sentence or with just a word, depending on their level, what is happening at each stage. Second, the student will glue the spiral macaroni on the leaf to represent the caterpillar larva stage. They may paint their caterpillar like the true caterpillar or how they wish. Next, the student will glue the shell macaroni to represent the chrysalis stage, and once again paint it accordingly. Last, the student will glue the bowtie macaroni to represent the last stage of an adult butterfly and paint it also.

#### **Assessment:**

Once the student is finished they will get the teacher's attention. The teacher will come over to the student and ask the student to place the stages in sequence on their desk. The teacher will ask the student the name of each stage and have them verbalize what is happening in each. This will serve as the assessment piece of this lesson. The student will be scored on a 4 point rubric.

## **Assessment Grading Rubric for Lifecycle Assignment**

3	exceeds the standard achieving the standard	the student is able to identify/ sequence all events correctly and able to verbally explain what is happening in each stage the student is able to identify/ sequence all events correctly
2.	annua ahina tha atandand	and give some verbal explanation as to what is happening in each stage, though the explanation may not be entirely correct
2	approaching the standard	the student is able to identify/ sequence 1/2 of the stages and give limited verbal explanation as to what is happening
1	far below the standard	the student is able to identify/ sequence less than 1/2 of the stages of metamorphosis and gives no attempt of verbal explanation

## **Extensions/Modifications/Accommodations by Disability:**

This lesson is a creative expression of the knowledge that the students have learned throughout the unit. It allows students with very little oral language or written skills to prove that they too learned the material and understand the concepts taught. Resources, such as word walls, dictionaries, and informational books, are welcome for all students to use as needed. Because of it's tactile nature, it is a good activity for even severely disabled students. If it is a special ed. student in your class for "social purposes" they can still participate without having to have mastered all the previous knowledge. They can simply create a beautiful butterfly art piece. The assessment piece of the activity allows the gifted to excel verbally in the amount of information mastered.

# Lifecycle of the Butterfly Lesson Six

#### **Introduction:**

The purpose of this lesson is to teach the students the anatomy of an insect and why butterflies are included in the insect species.

# **Outcomes/Objectives:**

Upon successful completion of this lesson, the students will be able to locate and label (visually and verbally) the anatomical parts of an insect. They will also come to the conclusion of why a butterfly is labeled an insect.

#### **Standards:**

**Standard 2: Writing**--Students effectively use written language for a variety of purposes and with a variety of audiences.

- W-F2. Use correct spelling, punctuation, capitalization, grammar and word usage, and good penmanship to complete effectively a variety of writing tasks.
- PO 1. Spell high frequency words correctly.
- PO 2. Punctuate endings of sentences.
- PO 3. Capitalize sentence beginnings and proper nouns.
- PO 4. Use standard, age-appropriate grammar and word usage (e.g., basic subject-verb agreement, complete simple sentences, appropriate verb tense, regular plurals).
- PO 5. Write legibly.
- W-F4. Gather, organize and accurately, clearly and sequentially report information gained

from personal observations and experiences such as science experiments, fieldtrips

and classroom visitors.

PO 1. Record observations.

**Standard 3: Listening and Speaking**--Students effectively listen and speak in situations which serve different purposes and involve a variety of audiences.

- Use effective vocabulary and logical organization to relate or summarize ideas, events and other information.
- Give and follow multiple-step directions.
- Prepare and deliver information by generating topics; identifying the audience; and organizing ideas, facts or opinions for a variety of speaking purposes such as giving directions, relating personal experiences, telling a story or presenting a report.

## **Resources and Materials:**

For the first part of the lesson, each student will need a pencil, crayons, and a copy of the insect diagram. The teacher will need an overhead projector, an overhead transparency of the insect diagram, and overhead markers. For the second part of the lesson, each student will need 3 large marshmallows, 6 pretzel sticks, 2 chocolate chips, 2 potato chips, 2 shoestring licorice, a spoonful of creamy peanut butter (a popsicle stick works too), and a paper towel or two.

#### **Process:**

This lesson is designed to be broken up into 2 days. Both parts of the lesson are designed to be done whole group. The first part is very straight forward. The students will be learning the specific body parts of an insect and labeling the insect diagram accordingly. The teacher will lead the instruction and use the overhead as demonstration. After the diagram has been labeled, the teacher will lead an active participation review type game. "Touch the abdomen. Where are the antennae? etc..." The students can then color the rest of their diagram. The second part (1-2 days later) will start with a review of the body parts. Put the overhead transparency back up and take the time to review it for a few minutes. Next, distribute the food materials to each student, making sure that you mentioned not to eat it beforehand. The teacher will also need the materials to use as a demonstration model. Once all materials are distributed, explain that the students are going to be constructing an insect from all the food products. Hold up each food product and ask the students which part of the insect body it will be. Tell them the correct answers before actually starting. Continue to construct the insect together. The first step is to use the peanut put to join the 3 marshmallows together (head, thorax, abdomen). Next, poke the pretzel sticks into the thorax (2nd marshmallow) for the legs. Then, with the peanut butter, attach the chocolate chips as eyes, the licorice on the head for antennae, and the potato chips on top of the thorax for the wings. Now the insect is complete, but they can't yet eat it. Play a little verbal active participation recall game similar to the day before. Have the students locate on their insect the body part called out. Play for a few minutes or so, then explain to the students that if they want to eat their insect they must first correctly identify all parts of their insect to the teacher.

## **Assessment:**

The teacher goes around and has the students verbally and physically identify all the insect parts. If the student does so correctly, he or she gets to eat it. If the student has difficulty, they receive a quick review from the teacher, a few minutes to practice alone and another chance to identify. Ultimately, those students having extreme difficulty will be at the discretion of the teacher. The grade of the assessment will be indicated by a teacher made check list (basically yes or no), or the following 4 point rubric.

# **Assessment Grading Rubric for Insect Anatomy Assignment**

4	exceeds the standard	the student is able to identify/ locate all body parts and verbalize the use of each part and it's significance to the insect
3	achieving the standard	the student is able to identify/ locate all body parts and verbalize the purpose of each part
2	approaching the standard	the student is able to identify/ locate most of the body parts and give reason to their purpose
1	far below the standard	the student is able to identify/ locate very few of the body parts correctly and gives no attempt to their purpose

## **Extensions/Modifications/Accommodations by Disability:**

A good extension of this lesson would be to create a Venn Diagram comparing and contrasting insects and humans, or butterflies and humans. Modifications and accommodations to this lesson require very little adjustment. It is a very multi-sensory lesson and allows a multitude of students to be able to convey their level of knowledge in a variety of ways. The assessment, if it is a LEP student, could be done by the teacher calling a body part and the student showing it's location on the insect. The student may not have the oral ability yet but knows the location. The same can be said for other disabilities as well. This lesson allows an avenue for all students to have their knowledge known in some way. Due to it's tactile nature, all students are actively engaged and can rely on one another or the teacher for help.

#### **Technology:**

Allow the students to use a graphics art program (kid pix) to create their own insect; however, it must include the different body parts that the students just learned about. The students could also use a word processing program to publish a story about their newly created insect.