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| **Teacher Candidate** | Anuhea Mertens |
| **Date:** | 3/9/16 |
| **School/Grade Level:** | 2nd grade- Science |
| **edTPA Info – Definition of Terms** | <http://cuhedtpa.weebly.com/about.html> |
| **Title/Theme of Unit** | Life Cycle and the Migration of the Monarch Butterfly |
| **Estimated Unit Plan Duration:** | 1 hour & 15 minutes (Science Block)  2 weeks (Observations) |
| **Essential Question(s):** | * What are the stages of the Monarch’s life cycle? * How do things change? * What environment do butterflies need to survive and grow? * How do caterpillars transform into a chrysalis? * How does a chrysalis transform into a butterfly? |
| **Standard/Goals(s)**  List the common Core Standard(s) and/or Hawaii Content Standard(s) that align (s) with the learning objectives (s). | |  |  | | --- | --- | | **Topic** | Classification | | **Benchmark SC.2.4.1** | Explain how plants and animals go through life cycles. | | **Sample Performance Assessment (SPA)** | The student: Illustrates the stages of the life cycles (e.g. growth, reproduction, and death) of various plants and animals, pointing out some details that distinguish each stage. | |
| **Student Learning Objectives (s)** Objectives should be measurable and aligned with standard (s). | * The student(s) will identify the four different stages of a butterfly. * The student(s) will describe the story of *The Very Hungry Caterpillar* by: Eric Carle. * The student(s) will identify the Monarch Butterfly. * The student(s) will observe the changes that occur during the life cycle of the Monarch butterfly. * The student(s) will name, sequence, illustrate, and label the four stages of the butterfly. * The student(s) will explain how the Monarch butterfly goes through a life cycle. * The student(s) will explain the migration of the Monarch butterfly. |
| **Assessment (s)**  List the types of formative and summative assessments that will be used to monitor and assess student learning. Include your pre and post unit assessment(s). | *Formative Assessment:*   * Class discussions * Science Journals (daily observations of the Monarch Butterfly life cycle) * Worksheets * KWL chart   *Pre Assessment:*   * Asking students “how many of you see the butterflies flying around the environment? Do any of you know what kind of butterfly that is? If so, what do you know about them?” * Butterfly life cycle quiz   *Post Assessment:*   * Butterfly like cycle quiz * KWL chart * Story book   *Summative Assessment:*   * Group presentation of the life cycle of the Monarch Butterfly * Individual presentation * Student Portfolio |

**Chaminade University – Lesson Plan Template**

Lesson Title: Life Cycle and the migration of the Monarch Butterfly

Grade Level: 2

**Learning Central Focus**

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| Central Focus    What is the central focus for the content in the learning segment?    Reference subject specific criteria for this and all edTPA terms at<http://cuhedtpa.weebly.com/about.html> | * The central focus is for students to understand that organisms, like the Monarch Butterfly go through different stages in their lives. They are born; they grow, develop into adults, and reproduce. |
| Content Standard    What standard(s) are most relevant to the learning objective (s)? | |  |  | | --- | --- | | **Topic** | Classification | | **Benchmark SC.2.4.1** | Explain how plants and animals go through life cycles. | | **Sample Performance Assessment (SPA)** | The student: Illustrates the stages of the life cycles (e.g. growth, reproduction, and death) of various plants and animals, pointing out some details that distinguish each stage. | |
| Student Learning Objective(s) | * The student(s) will identify the four different stages of a butterfly. * The student(s) will describe the story of *The Very Hungry Caterpillar* by: Eric Carle. * The student(s) will identify the Monarch Butterfly. * The student(s) will observe the changes that occur during the life cycle of the Monarch butterfly. * The student(s) will name, sequence, illustrate, and label the four stages of the butterfly. * The student(s) will explain how the Monarch butterfly goes through a life cycle. * The student(s) will explain the migration of the Monarch butterfly. |
| Prior Academic Knowledge and Conceptions    What knowledge, skills, and concepts must students already know to be successful with this lesson?    What prior knowledge and/or gaps in knowledge do **these**students have that are necessary to support the learning of the skills and concepts for this lesson?    What do you know about your students’ everyday experiences, cultural backgrounds and practices, and interests? | * The learner should have prior knowledge on the concept of a butterfly. * The student should be able to read, write, illustrate, and understand sequencing. * The student should demonstrate the ability to work individually and cooperatively in groups. * Basic computer/technology knowledge to utilize the Internet for resources. * My students enjoy constructive learning- such as doing hands-on activities and working in cooperative groups. They enjoy drawing and role-play. * At this stage my students are developing their sense of wonder. They are very curious about the environment. Curiosity will support student engagement throughout this lesson. * Prior to this lesson, I researched key vocabulary words (e.g. butterfly, pupa, chrysalis, etc.) in their home languages. I am hoping to use this as a tool to effectively communicate with my ELL’s. |
| Common Errors, Developmental Approximations, Misconceptions, Partial Understandings, or Misunderstandings    What are common errors or misunderstandings of students related to the central focus of this lesson?    How will you address them for **this group** of students? | * Butterflies have similar appearance and tendencies to a moth. Students may identify a moth as a butterfly. * Different organisms have different life cycles; students’ may get confused between different life cycles. * I will provide photos of both a moth and butterfly. Addressing similarities and differences between the two. * After learning about the Monarch butterfly, we will focus on the life cycle of amphibians “the frog”. Comparing and contrasting the two life cycles. |

**Instructional Strategies and Learning Tasks**

*Description of what the teacher (you) will be doing and/or what the students will be doing.*

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| Launch  10 Minutes    How will you start the lesson to engage and motivate students in learning? | * I will instruct students to gather on the blue carpet in front of the class. * “One, two, three, eyes on me” students are to look; I bring out the butterfly container which holds two Monarch butterflies. I will be explaining to the class we will be learning the life cycles of these beautiful creatures known as the “Monarch Butterfly.” * I will direct students’ attention to the projector where they will watch a short video from Brain Pop Jr. on butterflies. * As a class, students will participate in the short interactive quiz about the butterfly life cycle from Brain Pop Jr. |
| Instruction  15-20 Minutes    What will you do to engage students in developing understanding of the lesson objective(s)?    How will you link the new content (skills and concepts) to students’ prior academic learning and their personal/cultural and community assets?    What will you say and do?  What questions will you ask?    How will you engage students to help them understand the concepts?    What will students do?    How will you determine if students are meeting the intended learning objectives? | * To continue on our introduction of the Monarch butterfly, I will read aloud the story “*The Very Hungry Caterpillar”* by Eric Carle. * While reading the story, I will stop in between pages to ask questions and check for understandings. I will ask students “*What do you predict will happen next to the caterpillar”* I will ask them to talk with their elbow partners and will call upon a few students to share their answers. * Suspected answers will be- He will eat too much food and maybe throw up. He will get very sleepy and fall asleep. * I will inform students that the caterpillar in the story is preparing himself for his transformation into a butterfly. Caterpillars need to eat as much food to prepare for hibernation, which is part of their life cycle. * After reading the story I will ask a few more questions to connect their prior understandings of a butterfly. * Me: *By the show of hands how many of you have seen a butterfly either out on the playground or somewhere else? Did you know that a butterfly is first a caterpillar?* * I will inform my students these butterflies can be found flying around the school grounds. The Crown flower tree is where the caterpillars (that turn into a butterfly) like to hang out. * My students will be instructed with their *small cooperative groups* (Bruning, Schraw, & Norby, 2011, p. 350) to go outside to collect one caterpillar per group. * I will have students place the caterpillars in a new butterfly container. They will be observing the butterfly container over the next two weeks. Every day, they will begin to see changes of the caterpillar as it begins the life cycle journey of becoming a butterfly. * Students will be directed to the front of the classroom where a blank KWL chart is hanging above the white board. Class discussion begins…. ME: *Lets work together on completing this KWL chart on butterflies as a class. At the end of our lesson I will have you individually complete your own chart in your science journals.* I will hand out two pages of a blank diagram for students to illustrate the life cycle of the Monarch Butterfly. * ME: *Now that you have recognized what kind of butterfly we see in the playground, let us see how much you know about the butterfly life cycle. Do NOT worry if you don’t know all of these phases or if they are not in the correct order. We will be learning and observing these phases throughout this lesson. This is just for my understanding, so do the best you can.* Students will work on their butterfly life cycle diagram for 5 minutes. * The students will then be directed to the projector on the white board to watch a brief video on the Monarch Life Cycle (found on National Geographic Education, <http://www.natgeotv.com/ca/great-migrations/videos/growing-up-butterfly>) * Once the video is finished, I will teach them a song “*The Fuzzy Caterpillar”* to help extend the concepts of the Monarch butterfly life cycle. * Students will sing along the song (Tune: Itsy Bitsy Spider) * After learning the song, I will call upon a representative from each table to pass out: (1) another life cycle worksheet, now students should be able to complete the diagram accurately. (2) Butterfly fact sheet, which provides students with more information about butterflies. * I will make sure my students are meeting the intended learning objectives by walking around the classroom to see if they are completing the life cycle diagram. Also by asking questions throughout the story of *The Very Hungry Caterpillar.* Students will later be creating their own stories to show they understand the Monarch butterfly life cycle process. * Students will also be required to label, all parts of the butterfly, stages of the life cycle, and explain their migration journey. |
| Structured Practice and  Application  30 Minutes    How will you give students the opportunity to practice so you can provide feedback?    How will students apply what they have learned?    How will you determine if students are meeting the intended learning objectives? | * After watching the video, students will return to their desks. Where they will complete the life cycle diagram. Independently labeling the four stages of the butterfly life cycle. * Once they are finished, students will compare their diagram with their tablemates. Checking to see if everyone on the table has similar illustrations. I will be walking around making sure ALL students are actively participating. * We will have a class discussion on these creatures and how they change during their lives. * Students will be working in their small cooperative groups to construct their “big” diagram of the Monarch butterfly life cycle. Each group member will have a specific role (leader, facilitator, recorder, timer). This will ensure all students are participating. At the end of this lesson groups will present their posters to the class. Posters will be displayed in the classroom. * After working in groups, students will be instructed to individually read the fact sheet handed out earlier. * ME: *One, two, three, eyes on me* (to get their attention) I will call upon students individually to share a fact they took away from reading about the Monarch butterfly. * As a class we will learn key vocabulary relating to the life cycle of the Monarch butterfly. Students will be asked to define and write new words in their science journals. I will also be passing out index cards for them to write the words and definitions. These will be utilized as flash cards to prepare them for end of unit test. They will recite, and recall terms. All vocabulary from this lesson will also be added to our class word wall. * Students will be creating a picture book of the butterfly life cycle. Using the book, fact sheet, videos, group poster boards, additional online resources, and observations in butterfly container. Students are to include ALL vocabulary words, factual information, detailed illustrations, descriptions of behavior, illustration of adult butterfly labeling all it’s parts, narrative that includes butterfly migration. By creating a book will help me determine if students are meeting the intended learning objectives. * Students will present their storybook to the class. |
| Closure  15 Minutes    How will you end the lesson? | * Students will write in their science journals, reflecting on the activities done. They will complete their KWL charts. * Students will have a closing class discussion on what facts they took away from learning about the Monarch butterfly and it’s life cycle. * Students will take short butterfly quiz. * **Post activity**- Over the next two weeks students will continue their observations watching the butterflies grow, adding daily notes of changes in their science journals. Once butterflies are grown, they will release them into the wild.  1. Day 1 (after lesson): Students will record questions about butterflies. Making their predictions of what will happen over the next two weeks. 2. Four to Ten Days (Larva stage): Students are to have at least two journal entries. Entries may include, describing the behavior of the caterpillar, observations using specific descriptive words to describe, shape, size, color, or illustrating a larva which includes identifying the head, abdomen, and thorax. 3. Seven to Ten Days (pupa stage): Students are recording the transformation of caterpillar to chrysalis, illustrating the process and have vocabulary words included (chrysalis, metamorphosis, larva, caterpillar). 4. Birth of butterfly: Students record their observations about the birth of the butterfly. Including pictures, identifying body parts. 5. Adult Stage: For a few days students will observe the butterfly behavior. What are they doing? 6. Feeding the Butterflies: Students feed and record their behavior eating. 7. Release of Butterflies: Students will describe the process of releasing their butterflies. They will also make predictions of where they will migrate. 8. Reflections: Students will reflect in their journals this experience including at least five things they learned about the Monarch Butterfly life cycle. |
| Differentiation/ Planned Support    How will you provide students access to learning based on individual and group needs?    How will you support students with gaps in the prior knowledge that is necessary to be successful in this lesson? | *Whole Class*:   * I will explain to the class the lesson and activities we will be doing. As a visual, a butterfly exhibit will be provided for students to experience/observe the life cycle personally. Students will be actively engaged and participating. I will walk around the class to visit with each group to determine if they may have any questions or provide additional support.     *Individual students*:   * I will direct their attention to the butterfly life cycle posters and the class word wall with new vocabulary words displayed. * I will remind students they may also use the fact sheet as a reference, along with additional books or online resources.   *Groups of students with similar needs:*   * There are a few students who are ELL’s. I have researched key vocabulary words (used throughout this lesson) in their home language to support their learning during this lesson. I will allow these students to observe what their classmates are doing. For group poster presentations, they not be required to speak in front of class, but are still required to actively participate with providing information of life cycle and doing at least one illustration on poster.   *Students with IEP’s or 504 plans:*   * These students will still be placed in groups, but will work closely with peers who show they possess a clear understanding of the Monarch butterfly life cycle. I will walk around checking to see how they are learning. If additional help may be needed myself or educational assistant will work closely with he/she. For individual book assignment, these students will come together on one table where I will sit and provide guidance.   *Gaps in prior knowledge:*   * I will address gaps in prior knowledge by referring back to fact sheet, video, and poster boards explaining more in detail these different phases in the butterfly life cycle. |
| Student Interactions    How will you structure opportunities for students to work with partners or in groups?  What criteria will you use when forming groups? | * Students will work with their small cooperative groups in creating on poster-sized paper their understandings of the butterfly life cycle. They will illustrate, explain, and label all stages. Each member of the group has a role so they are ALL actively participating. * Groups will present their posters. * Other students will give positive feedback to the presenters. They will have a rubric to evaluate each group. * During class discussion students will share with their elbow partner what they are learning. * Students will work cooperatively in collecting their class caterpillars to watch transform into a butterfly. |
| What Ifs    What might not go as planned and how can you be ready to make adjustment? | * The assignments should be fairly simple. If students are finished early they will be instructed to read independently. * If some may need additional time, they will be able to stay in for recess to complete. * I will provide more books about butterflies for students to read. * If some students may not be cooperating well with one another in a group, they will be moved to another group. This group will be appropriate to support their learning needs. |
| Theoretical Principles and/or Research–Based Best Practices    Why are the learning tasks for this lesson appropriate for your students? | .  The learning tasks for this lesson are appropriate for my students because they provide effective learning strategies for ALL learners. I have adapted methods to make learning constructive which is highly engaging for my students. According to Bruning, Norby, & Schraw (2011), “Learning is constructive, not a receptive, process.  Knowledge is not simply acquired; it is created and re-created on the basis of previous learning” (p. o6).  As educators, I believe we need to be familiarized with student prior knowledge. At the beginning of the lesson I ask my students if they have ever recognized butterflies either at the playground or another place in the environment. I listen and they respond. From there I am connecting their prior experiences and knowledge utilizing their responses and applying it towards this lesson. Every lesson I ask myself, What do students know? How do they learn? How can we achieve our goal of effective learning? So for this lesson I can see that they have prior understandings that butterflies do exist, but do they know where butterflies come from? To understand that learning comes from prior knowledge we should assess and review students’ past and present learning.  In the text *Cognitive Psychology and Instruction* (2011), It is suggested for educators to utilize methods that encourage students to describe what they already know and how they felt about it, to link new information with the old, to use analogies and metaphors as tools for understanding, and to create their own structures for organizing new information (p. 06). The KWL chart students’ complete pre and post lesson supports the argument above. Throughout this lesson, students’ are participating in both class discussions and partner discussions. Helping me to gage what they know.  I then continue to formulate additional learning tasks most appropriate for effective learning. For increasing their cognitive capabilities, my students’ are given vocabulary words pertaining to the Monarch butterfly life cycle. They are given index cards, and then instructed to create flash cards including these words in their poster boards, life cycle diagram, storybook, and science journals. I also have my students’ do reflective writing and questioning in their journals. According to Bruning et al; self-questioning, reflective journal writing, and discussions about their thought processes with other peers helps build their metacognitive skills. This lesson also provides learners with reading and questioning about their reading. As a class we read, *The Hungry Caterpillar* in between reading I ask questions, along with asking students’ their predictions on what will happen next. For extended learning they are given the opportunity to read and utilize as resources additional books about the Monarch butterfly. The authors address the importance of reading “Reading gives children entry into the literate world; learning to read makes an important transit point.  If we successfully teach reading to our students they are more likely to learn, retain, and recall information” (p. 255). By approaching reading as a meaningful activity, students are more engaged and will learn effectively. I take away from the text, the basic reasons for literacy is learning, communicating, and enjoyment. Throughout this lesson I continue to promote constructive learning by providing an *inquiry-based classroom.* This type of classroom specifically focuses on posing questions with high cognitive demand, and asking more follow up questions. They begin lessons with thought-provoking questions and focus on student understanding rather than looking for right or wrong answers (p.350). Questions asked throughout this lesson are to seek understanding of what is being learned. From there, I place my students in *small cooperative groups*. Bruning et al., (2011) notes in these groups, each student develops a particular area of expertise which have been found to promote learning via “distributed cognition” as students learn from one another.My students are predicting their outcomes of what is happening in the process of the Monarch butterfly life cycle, they predict where the butterfly migrates, they reflect on what they observe and have learned. This is all an example of *reflective thinking and self-assessment skills.* These methods are directly teaching students metacognitive strategies that have been shown to increase understanding of the subject (p. 350). Students are also doing science journaling, helping to create dialogue between student and teacher, helping students to reflect on their knowledge and beliefs. It is evident all learning tasks used in this lesson are significant for learning the life cycle of the Monarch Butterfly.  Reference:  Bruning, R. H., Schraw, G. J. & Norby, M. M. (2011). *Cognitive Psychology and Instruction Fifth Edition.*Boston, MA: Pearson Education. |
| Materials    What materials does the teacher need for **this lesson?**    What materials do the students need for **this lesson?** | * Book: *The Very Hungry Caterpillar by:* Eric Carle * Laptop * Projector and speakers * Internet connection * Video: *Growing up Butterfly* [*http://www.natgeotv.com/ca/great-migrations/videos/growing-up-butterfly*](http://www.natgeotv.com/ca/great-migrations/videos/growing-up-butterfly) * KWL charts * Worksheets-Diagram of the butterfly life cycle * Butterfly fact sheet * Brain pop Jr. video * Fuzzy Butterfly Song Lyrics * Butterfly quiz * Caterpillar/butterfly exhibit * Poster-sized paper (1 per group) * Construction paper for story book * Crayons * Markers * Bug catcher/net (to collect caterpillar from Crown flower tree) * Digital Camera (students use to take photo of the live process |

**Academic Language Demand(s):**

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| **Academic Language:** What academic language will you teach or develop? What is the key language demand? What are the key vocabulary and/or symbols? | Key vocabulary words:   * Butterfly * Migrate * Caterpillar * Larva * Life Cycle * Pupa * Chrysalis * Transparent * Feast * Toxins * Metamorphosis * Adult * Head * Thorax * Abdomen * Antennae * Stage * Proboscis * Meconium   Academic Vocabulary:   * Observe * Question * Predict * Describe * Explain * Label * Record |
| **Language Function:** Identify the purpose for which the language is being used with attention to goal and audience – the one verb from the standards; ex: analyze, argue, categorize, compare/contrast, describe, explain, interpret, predict, question, retell, summarize, etc. | * Students will *analyze* what is happening during the caterpillar to butterfly change (metamorphosis). * Students will *compare and contrast* moths and butterflies. They will also be *comparing and contrasting* their poster boards of life cycle. * Students will *explain* their poster diagram. They will also *explain/share* their storybook. * Students will *identify* the different stages of the Monarch life cycle. * Students will *predict* in their science journals what will happen next during the observations of butterfly/caterpillar exhibit. * Students will *predict* the migration journey of the Monarch butterfly. * Students will *summarize* the story of *The Very Hungry Caterpillar*. * Students will *label and record* illustrations, notes, and observations in science journals. |
| **Academic Language Demand:** Given the language functions and learning task, describe the opportunities to practice using the language function in ways that support the essential strategy. The demand will require more or less scaffolding (support) depending on the needs of students. In language arts, these are syntax or discourse. | * The student will practice language function by writing complete sentences to describe the different stages of the life cycle. Also by explaining their migration. * Students will give oral presentations of their storybook. Reading it to the class. * Students will be able to listen to the story and be able to comprehend. |
| **Planned Supports:**  Instructional strategies, learning tasks and materials and other resources deliberately designed to facilitate student learning of the central focus. | Throughout this lesson the class are participating in active learning with class discussions, partner discussions, and collaboration through group work. One instructional strategy I use is the IRE Pattern, of initiating, respond, and evaluate (Bruning, Schraw, & Norby, 2011, p. 203). I present a question about what is being read or seen in the video about the life cycle process, my students respond with their answer, and then I am evaluating what is being learned. This supports additional learning as well as modifications for extended activity. The authors also address the *Core Model* *of instruction* (connecting, organizing, reflecting, and extending) that I also utilize to facilitate student learning. We begin the lesson by building and connecting prior knowledge of butterflies. From there the discussion helps me to organize knowledge for instruction. The authors write, “Knowledge construction is now simply a matter of accumulating particular facts or even creating new units of information. It also involves organizing old information (prior knowledge) into new forms” (p. 205). Students at the end of the lesson continue with another discussion and journal writing of reflecting what they learned, how or what could have been changed. This part of the lesson provides students with any follow-up questions or concerns. It also helps them to reflect on what they learned and if they extended their comprehension on butterflies. Extended learning will also be used to create their individual project of a storybook. The storybook will express student learning of Monarch butterfly life cycle.  Reference:  Bruning, R. H., Schraw, G. J. & Norby, M. M. (2011). *Cognitive Psychology and Instruction Fifth Edition.*Boston, MA: Pearson Education. |

**Assessments:**

*Describe the tools/procedures that will be used in****this lesson****to monitor students’ learning of the lesson objective(s).  Attach a copy of the assessment and the evaluation criteria/rubric in the resources section at the end of the lesson plan.*

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| Type of assessment  (Informal or Formal) | Description of assessment | Modifications to the assessment so that all students could demonstrate their learning. | Evaluation Criteria - What evidence of student learning (related to the learning objectives and central focus) does the assessment provide? |
| Informal | Verbal sharing of observations-class discussion | Voluntary-not all students are required to participate. | -Shows class has a general idea of butterflies.  -Has a general idea of what we will be doing in class. |
| Informal | Observation | Each student in their group takes turns drawing and labeling on the poster board. Groups will have specific roles (leader, material manager, recorder, facilitator) | -Shows students working together and understanding concepts. |
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| Informal | Grading | Allow students to individually construct a picture book representing the butterfly life cycle. | -Shows student understand the life cycle of the Monarch butterfly. |
| Informal | Test/Quiz | Allow student to retake if score lower than 70% | -Shows student’s understanding of the butterfly life cycle and key vocabulary from lesson.  -Pre & post quiz shows what student prior and learned knowledge. |
| Informal | Science Journal | Allow students to complete the diagram worksheet. | **-**Shows the student’s progress of learning the butterfly life cycle at both beginning and ending of lesson. |
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**Evaluation Rubrics:**

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| **Unacceptable** | **Acceptable** | **Target** |
| * The student will be unable to summarize the story of *The Very Hungry Caterpillar.* * The student could not explain the life cycle of the butterfly by writing 2-3 sentences. * The student could not illustrate the butterfly cycle using the diagram or creating a picture book. | * The student can summarize parts of the story. * The student can explain the lifecycle by writing at least one sentence, which follows their illustration of the four stages of the Monarch life cycle. * The student’s illustrations are accurate and clear. | * The student can summarize all-important parts of the story. * The student correctly explain the life cycle with the their illustrations in chronological order. * The student writes at least 2-3 sentences in their picture book describing the four stages and the butterfly’s behavior accurately. * They include key vocabulary in picture book. |

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| **Listening and Speaking Rubric** | | | | |
|  | Excellent  4 | Satisfactory  3 | Progressing  2 | Not Progressing  1 |
| Listening | Listens to others while waiting for turn to talk and stays on the topic | Listens to others most of the time while waiting for turn to talk and stays on topic | Difficulty in listening to others; difficulty waiting for turn to talk and staying on topic | Cannot listen to others and cannot wait for turn to talk and cannot stay on the topic |
| Asks appropriate questions | Asks insightful age appropriate questions regarding the topic at hand | Asks questions about the topic | Attempts to ask questions about the topic | Asks inappropriate questions and makes inappropriate comments |
| Speaks clearly | Articulates well and is easily understood | Articulates fairly well able to understand | Articulates some of the time, difficult to understand | Does not articulate, cannot make self understood |
| Volume | Speaks loudly, clearly, easily heard | Good volume, able to hear | Difficult to hear | Cannot hear |
| Shares ideas and feelings in a sequence | Ideas and feelings expressed were in a sequence | Expressed ideas and feelings | Difficulty expressing ideas and feelings | Cannot express ideas or feelings |
| Body posture | No fidgeting, standing tall | Little fidgeting, standing tall some of the time | Fidgeting and slouching | Fidgeting, slouching and inattention to detail |

Science Journal Rubric

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| Category | 4 | 3 | 2 | 1 |
| Quality of Information | Information clearly relates to topic on Monarch butterfly life cycle. It includes several supporting details and/or examples. | Information clearly relates to the topic on Monarch butterfly life cycle. It provides one or two supporting details and/or examples. | Information clearly relates to the topic on Monarch butterfly life cycle. No details and/or examples are given. | Information has little or nothing to do with the topic on Monarch butterfly life cycle. |
| Mechanics | No grammatical, spelling, or punctuation errors. | Almost no grammatical, spelling or punctuation errors. | A few grammatical, spelling, or punctuation errors. | Many grammatical, spelling, or punctuation errors. |
| Diagrams & Illustrations | Diagrams and Illustration are neat, accurate, and add to the reader’s understanding of the topic on Monarch butterfly life cycle. | Diagrams and illustrations are accurate and add to the reader’s understanding of the topic on Monarch butterfly life cycle. | Diagrams and illustrations are neat and accurate and sometimes add to the reader’s understanding of the topic on Monarch butterfly life cycle. | Diagrams and illustrations are not accurate OR do not add to the reader’s understanding of the topic on Monarch butterfly life cycle. |
| Notes | Notes are recorded and organized in an extremely neat and orderly fashion. | Notes are recorded legibly and are somewhat organized. | Notes are recorded. | Notes are recorded only with peer/teacher assistance and reminders. |