Unit Title: Animal Life Cycles

Unit Context: 1st grade, Spring, Small rural school

Unit Rationale:

1st grade students are naturally curious about animals. I wanted to use their interest in a science concept to reinforce and teach literacy skills. I tried to think of questions and activities that would encourage my students to think deeper and would include several correct answers. Researching, note taking, and group discussion give my students the resources to create informative writing pieces about a specific topic.

Focus Standards being Explicitly Taught and Assessed

Writing

**CCSS.ELA-Literacy.W.1.2** Write informative/explanatory texts in which they name a topic, supply some facts about the topic, and provide some sense of closure

**CCSS.ELA-Literacy.W.1.5** With guidance and support from adults, focus on a topic, respond to questions and suggestions from peers, and add details to strengthen writing as needed

**CCSS.ELA-Literacy.W.1.6** With guidance and support from adults, use a variety of digital tools to produce and publish writing, including in collaboration with peers.

**CCSS.ELA-Literacy.W.1.8** With guidance and support from adults, recall information from experiences or gather information from provided sources to answer a question.

Language

**CCSS.ELA-Literacy.L.1.2b** Use end punctuation for sentences.

**CCSS.ELA-Literacy.L.1.2d** Use conventional spelling for words with common spelling patterns and for frequently occurring irregular words.

**CCSS.ELA-Literacy.L.1.2e** Spell untaught words phonetically, drawing on phonemic awareness and spelling conventions.

Reading

**CCSS.ELA-Literacy.RI.1.1** Ask and answer questions about key details in a text.

**CCSS.ELA-Literacy.RI.1.2** Identify the main topic and retell key details of a text.
Idaho Standards for 1st grade Science
1.S.3.1.2 Describe the life cycle of an animal (birth, development, reproduction, death)
1.S.1.6.1 Make and record observations.

Measurable Objectives:

Students will identify and describe the changes that occur during an animal's life cycle.

Students will be able to write 2 to 3 paragraphs explaining an animal's life cycle based on information gathered from stories, videos, and group discussions.

Students will work as a group to use the information they have gained about an animal’s life cycle to create a PowerPoint demonstrating the life cycle.

Students will fluently read portions of their writing to narrate the PowerPoint.

Unit Enduring Understandings Addressed:

- Change is a natural part of life.
- Every living thing grows and changes.
- Clear and understandable writing is an important way to share ideas.

Unit Essential Questions Addressed

- Why do animals change over time?
Texts/Resources Recommended

Text and Level of Complexity
The texts in this unit plan are primarily unit stories and supplemental reading materials from the 1st grade Reading Street program. The stories range in Lexile from low 200s to the 400 range. They also include sight words and phonics groupings my students are focusing on.

Central Text(s): (include rationale of appropriate complexity)
“An Egg is An Egg” by Nicki Weiss
“I’m A Caterpillar” by Jean Marzollo
*These stories are from Unit 3 of the Reading Street 1st grade curriculum. The main focus of this unit is related to the concept of change. The reading materials are at a Lexile range appropriate for first grade students in the second half of first grade.

Text Dependent Question
How does the author’s use of sound words help you understand what is happening in the story?

Supplemental Literary Texts:
“Ruby in Her Own Time” by Jonathan Emmett
“Just Like Me” by Mary Katherine Tate
“Your Amazing Body” by Lona Rios
“Nothing Stays the Same” by Sasha Griffin
“Animals Grow and Change” by Bonita Ferraro
Frog life cycle books and audio books
Chicken life cycle books and audio books
Ladybug life cycle books and audio books
Praying mantis life cycle books and audio books
*The school librarian was very helpful in putting together a variety of books on lifecycles that my students could check out and use as resources.

Scaffolds/Supports for Texts:
Students work through a three step process to reading.
1. The students read the story independently annotating the text as they go, circling words they cannot read and placing a question mark by words they do not understand.
2. When reading the text as a group, when students come to a word they are unable to read we work on decoding strategies to help them sound out the word. Similarly, when students identify words that they do not understand we work on strategies for finding meaning within the text.
3. Finally the students read the text with a partner discussing the character, setting, and interesting events.

Students who are significantly below grade level pre-read the story with a teacher or a teacher assistant prior to the class reading activity. During this time they work on decoding strategies as well as comprehension. Students with advanced reading skills will be given related text at a higher lexile range.
Additional Materials Recommended

Butterfly: http://www.youtube.com/watch?v=5GGuEr-MQf4
Frog: http://www.youtube.com/watch?v=cAUSKxWMh0
Mantis: http://www.bing.com/videos/search?q=life+cycle+of+a+praying+mantis&FORM=QBVR&amp;lifecycle%20of%20a%20pr&sc=8-17&amp;sp=1&amp;os&amp;sk=##view=detail&amp;mid=359E55924CAEBFB0CC2A359E55924CAEBFB0CC2A
LadyBug: http://www.bing.com/videos/search?q=life+cycle+of+a+ladybug&amp;lifecycle+of+a+lady&amp;sc=8-20&amp;sp=1&amp;as&amp;sk=##view=detail&amp;mid=960C6235DACB4A331B0E960C6235DACB4A331B0E

Student Photos
Pictures of babies and children from Magazines

Key Vocabulary Terms: Content and Academic

Review: change, timeline, close reading, fact, main idea

Explicitly Taught: life cycle, metamorphosis, pupa, egg, chrysalis, adult, topic, supporting details, research (each group will add terms related to the life cycle of their specific animal)

(The students will be creating a picture dictionary to add terms and definitions to as they work through group and independent activities)

Procedures

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<tr>
<th>Time Frame</th>
<th>Sequenced Activities, including evidence of text-dependent questioning</th>
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<tr>
<td>2-3 hours</td>
<td>• Frontloading:</td>
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<td>Introduction of the concept of change. Students will listen to and read along with the audio story “An Egg is An Egg”. Group discussion of how the things and people in the story have changed over time. Ask the students how they have changed since the beginning of the year, or since they started school.</td>
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<td>Three step group close reading of “Your Amazing Body” and “Just Like Me”. As a group students will work together to create a Venn Diagram comparing how the characters changed. Group discussion relating how the characters have changed to how the students have changed in their lives.</td>
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</table>
Review how timelines are used to show change over time. Students will have 6 or 7 pictures of themselves from early childhood to current. They will place these pictures in order from youngest to oldest and write a brief description under each one. I sent home a student letter describing the activity and asking parents to provide a brief description on the back of the photo. I also scheduled a few parent helpers to join us for the activity. Students who are unable to bring pictures will illustrate their timelines with drawings or pictures from magazines.

### Building Knowledge

Animal and Insect Life Cycles

- Teacher led group reading of “I’m a Caterpillar”
- Students will read through the story independently, or with assistance from the teacher as needed. Those students who finish early will be asked to pre-read the questions and start writing down key words and ideas on their white board.
- When all students have had a chance to work through the story independently they will be asked to read the story with their seat partner looking closely for details in the text and discussing them. The teacher will use this time to observe students and ask questions about the story.
- Group discussion of the terms life cycle, metamorphosis, pupa, and chrysalis. The students will use information from their text and white board notes to create definitions for these words. The teacher will record their definitions and they will add those terms to their picture dictionaries.
- Review the text and students close reading to draw and illustrate a life cycle graphic organizer to go along with the story.
- View a video of the life cycle of a butterfly and complete a See, Think, Wonder chart.
- Group review and completion of a See, Think, Wonder chart.

### Guided Practice

Students will choose an animal of interest to study in a small group (frogs, chicken, ladybug, or praying mantis). I grouped the students by having them place their animal choices in order from most to least interesting. Using that information and knowledge about who my students work best with I arranged them into 4 groups.

- The student groups will meet with a teacher for 15 to 20 minutes daily. The students will work together with the guidance of a teacher to read and decode text about the animal they choose. They will use this time for close reading of the text to find out factual information about an animal’s life cycle. The students also reviewed reading strategies for nonfiction stories. We discuss how to sound out unknown words and look for clues in the surrounding text that could help them define words.

- While the teacher is meeting with one small group the other groups will be performing more independent activities. They will be viewing a video of the animals life cycle and recording key points on a See, Think, Wonder chart. The students will also independently complete a life cycle graphic organizer that will later be reviewed by their group. A third group of students will be working with a classroom aide or parent helper to record terms in their picture dictionaries. They will find the definition to these terms in their animal research books. I plan to have the students rotate through each of these activities in 20 minute intervals.

At the conclusion of each teacher led group the students will review their check off form and update...
When the students have completed their check off form they will answer the unit essential question.

After completion of their individual life cycle report, students will meet back in their groups to create a PowerPoint presentation. They will narrate information from their reports to a teacher who will act as the recorder filling out a slide outline. They will then create or select pictures that will be used to create their PowerPoint. The students will use sections of their reports to narrate their presentation using a screen cast-o-matic program. The final slide of their presentation will explain why animals change over time.

The student groups will work with a 5th grade partner to type the information from their slide outline into a PowerPoint presentation. They will present their PowerPoint presentations at the school academic fair and to the kindergarten class.

- **Student Groupings**
  Students will be placed in small groups of 4 or 5 students, based on their area of interest.

- **Independent Practice**

  The students will use information from small group study and their graphic organizer to write a 2 to 3 paragraph report explaining the animal’s life cycle. They will work to write one paragraph to reflect information in each of their graphic organizers. The students will use their all about animals and lifecycle graphic organizers to introduce the animal and give background information in their writing. They will then use interesting information from text decoding activities from their research books to write a conclusion.

  The students will meet for peer and teacher editing of their report. We will review the steps to the writing process, research, draft, review, edit and final. At this point I will share with the students, information from the grading rubric and examples of writing that is at the beginning stage, near the standard, and meets the standard. I will discuss with the students how editing their writing helps them create the best paper they can. Each section of their report will be edited during small group time. The peer editing portion will be done in a guided setting. I will ask the students to help me identify things that I am looking for while reviewing each paper; capitals, punctuation, picture dictionary words and word wall words. As I read sections I will ask students to decide if the sentences make sense. The students will orally make suggestions and I will write corrections on the student drafts. They will then create a final draft of their report complete with drawn or computer generated illustrations. The illustrations will help the reader clearly visualize each step in the lifecycle process.

**Differentiation (based on principles of UDL):**
http://www.udlcenter.org/aboutudl/whatisudl/3principles

Adapted by Idaho Core Coaches, 2013
Assessments

**Multiple Modes of Representation:**
- Books
- Audio books
- Videos
- Class discussion
- Hands on arrangement of timeline pictures

**Multiple Modes of Expression**
- Picture dictionary
- Graphic organizer
- Written report
- PowerPoint
- Narrating
- Student Illustrations
- See, Think, Wonder Charts

**Multiple Means of Engagement**
- Group actives
- Individual study
- Student choice
- Goals Sheets

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**Formative**

**Group goals check lists** - The students will use their checklist to reflect back on their learning goals and project needs while working with a teacher during small group time. They will also use their understanding to answer the unit essential question. Why do animals change over time?

**See, Think, Wonder chart** – The teacher will model how to complete a See, Think, Wonder chart during a whole class viewing of the life cycle of a butterfly. The students will complete and review this chart together after the video. The students will later use a See, Think, Wonder chart to independently take notes while watching a video of the life cycle of their animal. Their notes will be reviewed and used during group discussions.

**Life cycle graphic organizer** – The students will complete a life cycle graphic organizer together as a whole class guided activity after completing the story “I’m a Caterpillar”. The teacher will demonstrate how this graphic organizer can be helpful in creating text to describe an animal’s life cycle. The students will later complete a life cycle graphic organizer to record the information they gained while studying an animal’s life cycle. These graphic organizers will be reviewed by their group and used to help write their final report. The graphic organizers will also be used in a specific order to create a report that flows.
**Picture dictionary** – Students will record new terms in their picture dictionary along with a brief explanation and picture.

**Summative**
**Timeline** – The students will use photos and illustrations to create a timeline of their lives.

**Written Report**
**PowerPoint**

**Rubric/Scoring Guide (Attach)**
The grading rubric includes information that I need to clearly score the students work. However, the information included in the rubric would be difficult for a first grade student to read and comprehend. Adding writing samples that clearly meet or do not meet the targets would be helpful in communicating my expectations for student work. I have attached student samples for work that is below, near, and meets the standards.