

Title: From Caterpillar to Chrysalis	Date: Monday, September 24, 2007
Rationale: Students will learn about the chrysalis stage, or pupation stage, of a caterpillar’s life. Students will prepare information that is needed to continue the unit, such as dates and pictures of the chrysalis when we witness the first chrysalis formation.	
Objectives: 1) Students will begin to use the vocabulary of <i>chrysalis</i> versus cocoon. 2) Students will draw a caterpillar and label its parts.	
Standards: (based upon ICCSD Science benchmarks) - Understand the diversity and unity that characterizes life. - Compare and classify organisms on the basis of observable physical characteristics	Materials: <ul style="list-style-type: none"> ● “What happens to the caterpillar” activity sheet 6 (class set) ● Caterpillars (class set in cups) ● Hand lens (class set) ● “Draw a caterpillar” assessment sheet (class set) ● <u>The Beautiful Butterfly Book</u> by Sue Unstead
Procedure (approx. 20 min): Pre-Observations for students: <ul style="list-style-type: none"> ● <i>I know that this can be exciting and fun</i>, so let’s keep it that way. It’s a privilege to keep our caterpillars on our desks, so remember to use our Core Virtues to help us take care of the caterpillars. Ask students if they know some expectations of how we should be acting at our desks? Include shouting across the room, touching neighbors’ caterpillars, taking the lids off, etc... ● Allow students to observe their caterpillars for approx. 5-7 min. ● Circulate around; asking questions to students whose caterpillar is in the J-shape. If a student has a neighbor with a caterpillar in the J-shape, have them both make observations about that caterpillar. Introduction/Launch: <ul style="list-style-type: none"> ● Ask students what they have been noticing about their caterpillars. ● If the J-shape isn’t occurring with all of the caterpillars, pull a few samples to the side and ask students what they notice about those specific caterpillars. ● If not all caterpillars are in this J-shape, ask students if that is ok. Some caterpillars may be slower than others, and they develop at their own pace, just like people! Lesson: <ul style="list-style-type: none"> ● Read pg. 11 from <u>The Beautiful Butterfly Book</u> about “Amazing Changes” ● Explain to students that this is going to be the next stage for our caterpillars, once they’ve entered the J-shape. ● They’re in this J-shape, hanging from a silken “button” from the ceiling. Here is where they go through the final molt and expose their chrysalis. 	Gearing Up: <ul style="list-style-type: none"> ● Have students draft a creative writing assignment about a caterpillar during the pupation stage. What is the caterpillar doing, thinking about, and becoming while encased in the chrysalis. Gearing Down: <ul style="list-style-type: none"> ● Specifically direct students to the caterpillar bulletin board which includes all the labeled parts of a caterpillar. <p>Extended Notes: (Include any difficulties or simplicities that students encountered during this lesson. Keep notes thorough and include specific names and instances)</p>

- Ask students about the vocabulary word we use when caterpillars shed their skin, this last time (molt).
 - By now, students may be noticing the word chrysalis vs. cocoon. Explain that they are very similar; however, the word cocoon is often just used for moths.
 - Explain some of the changes that are occurring during pupation. But first, ask students what they think is happening in the chrysalis and why? Take volunteer suggestions.
- Include the features of a butterfly that are forming (pgs. 43 of manual)
- Evaluations/Summaries:
- Explain Activity Sheet 6 about the J-shape
- Also, explain the drawing the caterpillar sheet. This one is more of an evaluation. Students need to do their absolute best work and be as detailed as possible with drawings and labels.
- Collect students' caterpillar labels.

Assessment:

- 1) Are students noticing the vocabulary of chrysalis vs. cocoon? If so, who? Can students explain by themselves what differences may exist?
- 2) Are students able to independently work on activity sheet 6? Which students still need to be reminded to focus?
- 3) Review collection of caterpillar drawings: look for labels and details within the body.

Lesson Success

_____ **Excellent**
 _____ **Good**
 _____ **Fair**
 _____ **Flop**