Extend: How will students deepen their conceptual understanding through use in new context?	Have the children seen other animals that use strands of silk? (Spiders, of course!) What are the similarities and differences in the ways caterpillars and spiders use silk?	• https://www.youtube.com/watch?v=g5iN0ZaoW7M	Use observations to describe patterns and/ or relationships in the natural and designed world(s) in order to answer scientific questions and solve problems.		
Lesson Title/Number: Caterpillars enter the pupa stage in their development to become a butterfly / Lesson 7		**Learning Objective(s):** Students observe the formation of a chrysalis, the third stage in the butterfly's life cycle.			**Lesson Duration:** 40-50 minutes
Learning Cycle ***What lesson elements will support students' progress towards mastery of the learning objectives(s)?*** ****Elements do not have to be in conducted in sequence.***	***Learning Activities*** ***What specific learning experiences will support ALL students' progress towards mastery of the learning objective(s)?***	***Resources/Materials*** ***What curricular resources/materials are available to facilitate the implementation of the learning activities?***	***Science and Engineering Practices*** ***What specific practices do students need to use in order to progress towards mastery of the learning objective(s)?***	***Disciplinary Core Ideas*** ***What core ideas do students need to understand in order to progress towards mastery of the learning objective(s)?***	***Crosscutting Concepts*** ***What crosscutting concepts will enrich students' application of practices and their understanding of core ideas?***
Elicit: How will you access students' prior knowledge?	Students will view pictures of the caterpillars in their chrysalis stage. They will then generate questions about the pictures that will be revisited at the end of the lesson.		Asking Questions and Defining Problems		
Engage: How will you capture students' interest and get students' minds focused on the concept/topic?	Interactively read about the chrysalis stage in STC Literacy Series, The Life Cycle of Butterflies, "A Caterpillar Becomes a Butterfly" pgs. 12–13				
Explore: What hands-on/minds-on common experience(s) will you provide for students?	Distribute the caterpillars and hand lenses. Allow time for observations. To help students focus on the changing caterpillar, ask them to notice the size of their caterpillars (about 25 to 35 mm, or 1 to 1½ inches), their level of activity (relatively inactive), whether or not they have spun a silk button on the lid of the cup, and their position in the cup (may be hanging in J-shape from lid).				