

Class: Grade 2 Science

Lesson Title: Metamorphosis – Butterfly Life Cycle

Class Size: 20
Time: 50 mins

Curriculum Outcomes:

2.1.1 describe growth and development of familiar animals during their life cycle

Learning Objective:

1. Students will be able to demonstrate an understanding of the stages of metamorphosis for a butterfly.

Materials:

- Butterfly Life Stages book (any book on the stages of metamorphosis, or simply tell students a made up story of a caterpillar becoming a beautiful butterfly)
- Blankets (or jackets for each student to roll up into in the chrysalis stage)

Preparation beforehand:

- Make sure there is enough space for students to move around (possibly on the floor) within the classroom

Introduction:

1. Start off the day with a story about the life of a caterpillar turning into a butterfly. This will set the activity up by giving students an introduction to the life stages of the caterpillar and give them a little bit of background to work from.
2. Ask students what they know about caterpillars and butterflies from person experience, or whether any student has ever seen one emerge from the cocoon.
3. Explain what a kinulation is (broken up into kinesthetic and simulation). Tell them that these are used to help students learn difficult concepts that are otherwise difficult to picture. It allows students to become part of the demonstration, and therefore easier to remember and learn. Ask students if they would like to try one.

Activity: Butterfly Life Stages

1. Discuss with the students how they think the life of the caterpillar should start (should we start all the way from the egg and then become a baby caterpillar – larvae – and then go from there or should we start as caterpillars).
2. Have students talk you through the remaining stages (using their past knowledge or new knowledge from the story to help them).
3. Let students know that they have special props for them to use during the cocoon stage (blankets/jackets) and that we will invite all students to start acting out the stages.
 - a. Students will start as eggs (they can sit on the ground with head between their legs).
 - b. Once the students “hatch” from the eggs, they can become larvae by laying with their arms at their sides and legs closed together; they may wiggle a little bit, but not move anywhere within the room yet.
 - c. As students age into caterpillars, they can start to wiggle around and move on the floor.
 - d. When students think they are ready to enter the cocoon stage, they can grab a blanket or jacket and wrap themselves up on the floor.
 - e. The time that students are to stay in the cocoon is completely up to them. When they emerge from the cocoon, they should move about the class as “butterflies” and flap their arms or do whatever they think they would do as a butterfly.
4. Discuss with students different features of the stages of metamorphosis and ask students about how they knew when to leave the cocoon: Did they feel like there was a certain amount of time they needed? Did they feel pressure from other butterflies? Were they impatient?

Conclusion – Possible wrap-up questions:

1. How long do you think the whole process actually takes (see image to the right)?
2. Do you think butterflies can ever go back to being caterpillars?
3. What do you think they eat at each stage of their life?



