

Overview:

After listening to books and discussing the stories, students identify the life cycle of a butterfly and a frog.

Targeted Alaska Grade Level Expectations:

Science

- [3] SC2.2 The student demonstrates an understanding of the structure, function, behavior, development, life cycles, and diversity of living organisms by observing and comparing external features of plants and animals that may help them grow, survive and reproduce.
- [3] SA1.1 The student demonstrates an understanding of the processes of science by asking questions, predicting, observing, describing, measuring, classifying, making generalizations, inferring and communicating.

Materials:

- *From Caterpillar to Butterfly* by Deborah Heiligman
- *From Tadpole to Frog (How Things Grow)* by Jan Kottke
- Spiral pasta (one piece per student)
- Shell pasta (one piece per student)
- Bow tie pasta (one piece per student)
- Small beads (one per student)
- Glue
- Butterfly pattern (one per student)
- Crayons or markers
- STUDENT WORKSHEET: "Life Cycle of the Butterfly"
- STUDENT WORKSHEET: "Life Cycle of the Frog"

Activity Preparation:

1. Make a KWL chart (what you know, what you want to learn, what you learned).

Activity 1 Procedure:

1. Ask students what they know about butterflies. List the responses on the board.
2. Read the book, "*From Caterpillar to Butterfly*." Discuss the story. The teacher should draw the four stages of the butterfly's life cycle on the board as the students discuss them. Discuss how a butterfly looks the same on both sides (symmetrical).
3. Tell students they will be making a model of a butterfly life cycle. Show them the various types of pasta and the bead and ask what each represents in the life cycle (bead = egg, spiral = caterpillar, shell = chrysalis, bowtie = butterfly). Instruct them to use the bead and pasta to show the life cycle of the butterfly. Give each student the STUDENT WORKSHEET: "Life Cycle of the Butterfly" to complete.

Extension Ideas:

1. Write a story from the perspective of being a caterpillar who becomes a butterfly.
2. Create a butterfly garden. These can be ordered from monarchwatch.org.
3. Read the following books aloud: *Insects* by Robin Bernard, *The Bug Book* by Robin Bernard, and *The Very Hungry Caterpillar* by Eric Carle.

Activity 2 Procedure:

1. Tell students they will be learning about another life cycle, the life cycle of frogs. Ask them to help fill in the K and W sections of the KWL chart by telling what they know about frogs and what they want to learn about frogs.
2. Read the book, *"From Tadpole to Frog (How Things Grow)"*. Discuss the story and the life cycle of the frog. Have students help complete the KWL chart by adding any additional items to the W section and completing the L section.
3. Ask students to do the STUDENT WORKSHEET: "Life Cycle of the Frog."
4. Ask students to share with a partner what they learned about frogs.

Extension Ideas:

1. Have students act out the four stages of the frog life cycle.
2. Have students touch tapioca pudding and have them compare the consistency of pudding to frog eggs.
3. Read the following books aloud: *Why Frogs are Wet* by Judy Hawes, *A Wood Frog's Life* by John Himmelman, *The Life Cycle of the Frog* by Bobbie Kalman and *Frogs and Toads and Tadpoles Too* by Allan Fowler.

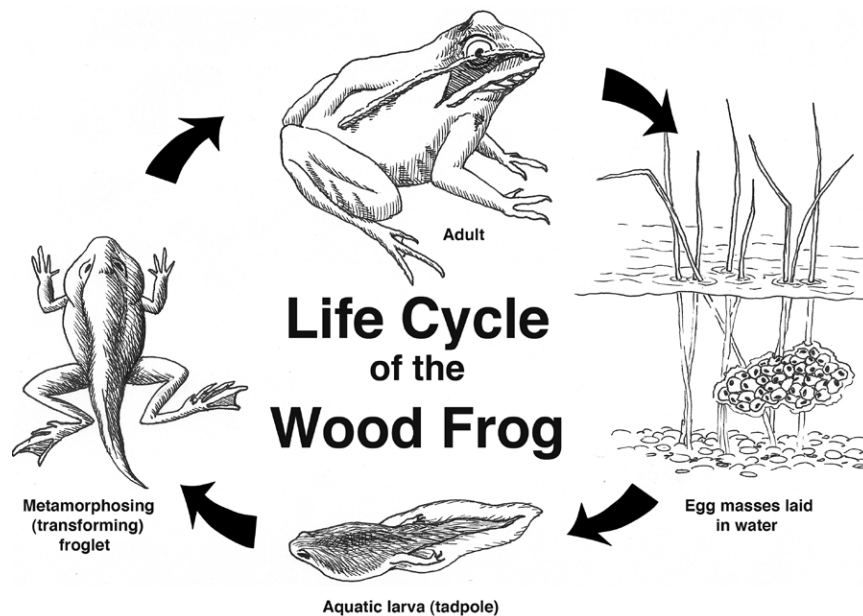
Answers:

STUDENT WORKSHEET: "Life Cycle of the Butterfly"

1. egg
2. caterpillar
3. chrysalis
4. butterfly

STUDENT WORKSHEET: "Life Cycle of the Frog"

1. egg
2. tadpole
3. froglet
4. frog



NAME: _____

LIFE CYCLE OF THE BUTTERFLY

Directions: Glue the bead and pasta pieces in the correct boxes to show the life cycle of the butterfly.

1. Egg	2. Caterpillar
3. Chrysalis	4. Butterfly

Write what you learned about the life cycle of a butterfly.

NAME: _____

LIFE CYCLE OF THE FROG

Directions: Cut out the pictures and glue them in the correct boxes to show the life cycle of the frog.

<p>1.</p> <p style="text-align: center;">Egg</p>	<p>2.</p> <p style="text-align: center;">Tadpole</p>
<p>3.</p> <p style="text-align: center;">Froglet</p>	<p>4.</p> <p style="text-align: center;">Frog</p>

