



LESSON PLAN FOR PASTA BUTTERFLY LIFE CYCLE

Episode Four 204 – Life Cycles (Life Science)

So which came first, the chicken or the egg? Award-winning science teacher and host Rick Crosslin shows you how life, whether it's plants or creatures, is really one endless, fascinating circle! Imagine a seed that grows so fast, it's a full plant in just over a week – and dead less than a month later, right here in Indiana. From insects to people, from seeds to DNA – learn how we are part of the cycles that keep turning 'round and 'round in the world around us.

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Overview

Students will gain an understanding of the life cycle of a butterfly using pasta life cycle model.

Background information

There are many ways to study a complete life cycle of an organism. A complete life cycle has four stages: egg, larva, pupae and adult. In this exercise students learn the stages in a complete life cycle by using pasta shapes to create a model of a simple life cycle. Pasta comes in a variety of shapes. Students will enjoy creating a life cycle model from pasta shapes.

Connections to the Indiana Academic Standards for Science, Grades 4 - 7

4.1.1, 4.1.3, 4.1.4

5.1.1, 5.1.3, 5.2.7, 5.2.8, 5.6.2

6.1.2, 6.2.6, 6.7.2

7.1.3, 7.2.7, 7.7.2

Science Process Skills

- Calculating
- Classifying
- Communicating
- Measuring
- Posing questions

Estimated Time Requirement

One - 35 minute session

Materials for Pasta Butterfly Life Cycle

- Paper Plates
- Pasta: four different types (couscous, rotini, shells, bow-ties)
- Elmer's Glue
- Hand Lens
- Marker

Objectives

Students will be able to:

- Identify the stages in a butterfly life cycle
- Create a model of a complete life cycle
- Demonstrate the correct order of a butterfly life cycle

Procedure

Anticipatory set:

- Visit the website:
www.IndianaExpeditions.org
- View the *Life Cycles* Indiana Expeditions segment
- View the video lesson from the this episode

Preparation prior to the lesson:

- Gather materials
- Produce or view images of butterfly life cycles

Lesson sequence:

- Inform the students that today they are all going to the life cycle model of a butterfly. A butterfly has a complete life cycle with four stages: egg, larva, pupae, and adult butterfly. Explain that they are going to make a diagram for the life cycle using pasta.
- Give each student a paper plate
- Using a marker and have them write out the names of the four stages on the paper plate. "Egg" at the top, "Larva" at the right, "Pupae" at the bottom and "Adult" at the left
- Draw arrows clockwise from "Egg" to "Larva" and from "Larva" to "Pupae" and so forth
- Put a dot of glue under "Egg."
- Take a pinch of couscous and drop in on the glue for the egg
- Put a dot of glue next to "Larva"
- Place two rotini pasta on the glue for the two larva



- Put a dot of glue next to “Pupae”
- Place two of the shells on the glue for the pupae
- Put a dot of glue next to “Adult Butterfly”
- Place the bow-tie on the glue for the adult butterfly

Closure:

- Discuss, as a class and then ask the students how this relates to the life cycle of a butterfly
- Discuss, as a class the life cycles of other animals
- Describe how this model is similar and different to the real life cycle of a butterfly

Suggested Student Assessment

Objectives:

Ask students to write and/or illustrate what they did during this activity and what they learned from their participation in the activity.

Ask students to compare this life cycle to that of another organism.

Extending the Lesson

Ask students to

- Research different types of life cycles,
- Investigate and illustrate the life cycles of other organisms,
- Make a flip book of a the life cycle of a butterfly
- Compare and contrast their model of a pasta butterfly life cycle with a real butterfly life cycle.

Source of Lesson

Rick Crosslin

To learn more, visit the website at www.IndianaExpeditions.org

