



Where Do Eggs Come From?

Introduction

Want to help your students see how the ordinary is really eggs-traordinary? Then introduce this lesson plan, and you'll engage your class in a fun, yet educational, 60-minute learning experience focused on where eggs come from.

Grade Level

2nd – 3rd grade

Time Requirements

60 minutes

Learning Objectives

After completing this lesson, students will be able to:

- Explain where eggs comes from
- Recognize the nutritional value of eggs
- Use their imagination to create an animal from an egg and other art tools
- Develop a fictional or non-fictional piece on a particular farm animal
- Use observation and critical thinking skills to identify differences in eggs

Indiana Education Standards

Math/Science

- Standard 1: The Nature of Science and Technology (3.1.3) – Keep and report records of investigations and observations using tools, such as journals, charts, graphs and computers
- Standard 3: Algebra and Functions (3.3.7) – Plot and label whole numbers on a number line up to 10

Art

- Standard 2: Creating Art (2.7) – Understand and apply elements and principles of design in personal works of art, utilizing a variety of media, tools and processes



English

- Standard 3.5: Writing (3.5.2) – Write descriptive pieces about people, places, things or experiences that: develop a unified main idea and use details to support the main idea
- Standard 2: Writing (2.4) – Write clear sentences and paragraphs that develop a central idea. Progress through the stages of the writing process, including prewriting, drafting, revising and editing multiple drafts.
- Standard 3: Write clear sentences and paragraphs that develop a central idea. Students progress through the stages of the writing process, including prewriting, drafting, revising and editing multiple drafts.

Materials

- Graph paper
- Hard boiled eggs (1 per student as well as 1 per group for science experiment B)
- Raw eggs (3 per group for science experiment A)
- Latex gloves
- Cooler of ice
- Insulated container/towels
- Art supplies
 - Glue
 - Yarn
 - Pipe cleaners
 - Colored paper
 - Googly eyes
 - Scissors
 - Fabric
- Paper
- Pencils/pens
- Computer



Instructional Approach

1. The Poultry Poll:

Step 1: The night before this lesson plan is introduced in class, assign the following as homework:

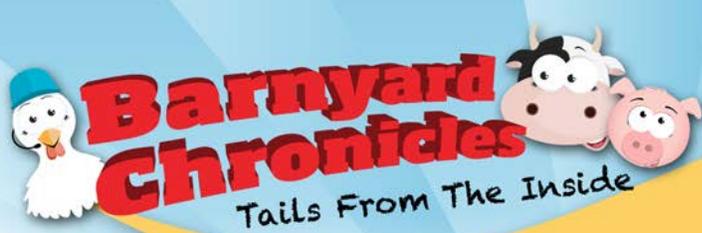
- a. Poll 10 people (friends, family members, neighbors) asking them to respond to the following question:
What is your favorite way to have eggs prepared?
 - *Options: scrambled, poached, sunny-side up, deviled, hard-boiled*
- b. Chart your responses on the sheet of graph paper provided. Clearly label each type and its corresponding tallied results.
- c. Bring your completed graph to school the next morning, and be prepared to share your results with the class.

Step 2: [5 minutes]

In class, ask students to share the results of their poll reporting their group's favorite way to have eggs prepared. Keep a tally of the collective results (by type) on the whiteboard or chalkboard. Once all students have shared their results, announce the winning type.

2. Discussion: "Where do eggs come from?" [15 minutes]

- a. Solicit responses to this question from students.
- b. Ask, "What food group in the MyFood Pyramid do eggs belong to? (*Answer: the meat and beans group. All foods made from meat, poultry, fish, dry beans or peas, eggs, nuts, and seeds are considered part of this group.*)
- c. Have students brainstorm the many ways eggs can be part of a menu. (*Responses could include stand-alone meals, or as an ingredient of a particular dish*)
- d. Using the information below, discuss the nutritional value of eggs and how they are important to the students' body development and function.
 - i. One egg has 13 essential vitamins and minerals.
 - **Choline:** Helps maintain normal functioning of cells, including those involved with brain and nerve function, memory and the transportation of nutrients throughout the body.
 - **Selenium:** Works hand-in-hand with vitamin E to protect against some chronic diseases.
 - **Riboflavin:** Helps produce energy in all the cells of the body.
 - **Vitamin B12:** Supports normal digestion and nerve cell function.
 - **Phosphorus:** Builds healthy bones, teeth and cell membranes.
 - **Pantothenic Acid:** Breaks down food and assists body cells in producing energy.
 - **Folate:** Promotes proper fetal development.
 - **Iron:** Plays an important role in red blood cell production and oxygen transport.



- **Vitamin A:** Supports growth and maintains healthy skin, vision and immune function.
 - **Vitamin D:** Strengthens bones and teeth.
 - **Zinc:** Helps maintain the body's immune function.
 - **Vitamin B6:** Keeps nerve transmission running smoothly.
 - **Calcium:** Builds strong bones and teeth and plays an important role in nerve function, muscle contraction and blood clotting.
- ii. At around just \$0.14 each, eggs are the most affordable source of high-quality protein.
- e. Possible discussion questions:
- i. What did you learn from this discussion?
 - ii. Is there anything that surprised you?
 - iii. Based on what you have learned about its nutritional value, do you get enough egg in your diet? If no, what actions do you plan to take to improve this?

3. **“EggArt!” Activity** [20 minutes]

This hands-on activity allows students to use their imagination and understand how art can be created from everyday objects—even food!

Instructions:

- a. In advance, boil enough eggs so that you may distribute one hard-boiled egg per student.
- b. Also in advance, set up a craft station with all the possible items the students may use to create their art piece. *(See recommended list at beginning of lesson.)*
- c. Give each child a hard-boiled egg. *(You may consider writing initials on the eggs in advance.)*
- d. With the hard-boiled egg as the body, students are to use the supplies provided to them to create an egg farm animal of their choosing. *(Suggestions include chickens, cows, pigs, sheep, horses)*

4. **Homework: From “Chicken Scratch” to “Eggs-cellent”** [5 minutes]

With their new farm animal now created, students can use their writing skills to hatch another creative idea. Choose – or give students the choice of – one of the following writing assignments:

- a. Bring your farm animal to life and create a one-page “tall tale” about the animal. *(Suggest sharing the Barnyard Chronicles books for inspiration!)* [2nd or 3rd grade]
- b. Write a one-page description of what you think life would be like if you grew up on a farm. [2nd or 3rd grade]
- c. Research your farm animal and write 3-4 paragraphs about the animal. Be sure to share anything you learned that surprised you and what you'd like to learn more about. [3rd grade]
- d. Write a one-page description of the life of a farmer responsible for caring for the student's farm animal. Consider what the animal must be fed, how they must be cared for, etc. [3rd grade]



5. Engaging Egg-periments [15 minutes]

Instructions:

- In advance, set up the two experiment stations described below. The goal is to allow the students explore and use observation, recording and critical thinking skills.
- Have students work in groups of three. (*Note: You may consider dividing the class in half, with one group creating EggArt while the other group performs the experiments.*)
- Give students about 5-7 minutes at each station before switching.

For both experiments, students should wear latex gloves to prevent a mess from the raw eggs.

Egg-periment A

Place one raw egg and one hardboiled egg at the station. Ask students to figure out which one is which—without cracking them open! After a couple minutes of observation and discussion, give them an envelope with the following instructions:

Spin it! If the egg spins easily, it is hard-cooked. If the egg wobbles, it is raw.

Egg-periment B

Have students observe the strength and breakability of three different raw eggs:

- One that is normal room temperature
- One that is being kept cool in a cooler of ice
- One that is being kept warm in a warm towels or a insulation pack

Ask students to observe and answer the following:

- Are there are any changes in appearance or feel?
- Does the temperature of the egg affect its breakability?
- Tap on the eggs and press on them on both ends. Is one easier to break than another?

(Hypothesis: The temperature of all substances affects how brittle they are. Typically, the colder something it, the more likely it is to break.)