

GRADE KINDERGARTEN:

Classroom Hatching

Activity Time:

Four 30 to 45 minute sessions in person or virtual.

Three weeks of supply use incubation and observation in class.

Core Expectations:

K-LS1-1.

Use observations to describe patterns of what plants and animals (including humans) need to survive.

K-ESS2-2.

Construct an argument supported by evidence for how plants and animals (including humans) can change the environment to meet their needs.

K-ESS3-1.

Use a model to represent the relationship between the needs of different plants or animals (including humans) and the places they live.

Program Alignment with Iowa Core Curriculum

Disciplinary Core Ideas

- **LS1.A Structure and Function:** All organisms have external parts. Different animals use their body parts in different ways to see, hear, grasp objects, protect themselves, move from place to place, and seek, find, and take in food, water, and air. Plants also have different parts (roots, stems, leaves, flowers, fruits) that help them survive and grow.
- **LS1.B Growth and Development of Organisms:** Adult plants and animals can have young. In many kinds of animals, parents and the offspring themselves engage in behaviors that help the offspring to survive.
- **LS1.D Information Processing:** Animals have body parts that capture and convey different kinds of information needed for growth and survival. Animals respond to these inputs with behaviors that help them survive. Plants also respond to some external inputs.
- **ESS2.E Biogeology:** Plants and animals can change their environment.
- **LS3.A Inheritance of Traits:** Young animals are very much, but not exactly, like their parents. Plants are also very much, but not exactly like their parents.

Science and Engineering Practices

- Students will be able to describe the life cycle of poultry
- Students will observe needs of living things at various life stages and how environments provide for needs
- Students will model embryo development and environmental change

Cross Cutting Concepts

- **Scale, Proportion, and Quantity:** Students will compare and describe observations of proportion, quantity, and size
- **Structure and Function:** Students will explore structure and function of an animal's parts
- **Patterns:** Students will identify patterns in the life cycle and growth of animals

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Supplies:

- 1 egg incubator
- 7 fertilized eggs
- Lifecycle model eggs
- Books for reading aloud
- Printed work books for each student
- Calendar to share daily “inside the egg” updates with youth
- Small cage
- Feeder, waterer, heat lamp, feed and shavings for chicks after hatching

The above supplies may be provided to your classroom or home school group at no charge thanks to the generosity of those sponsoring this program: Rembrandt Foods Inc., Iowa Egg Council and Hy-Line.

Program Overview

Description

Students will explore the life cycle of poultry by incubating and hatching eggs. Throughout the process, youth will learn about needs of living things, structure and function of parts of the animal, and the animal's environment. This program also introduces youth to MyPlate and connects to National Agriculture Literacy Outcomes.

Outline (*Overview of each ISU Session and teacher led activities*)

1. Introduction and Incubator Set Up: This engaging classroom visit will kick off this series and prepare students to help the chicks hatch. Important vocabulary will be covered to introduce youth to supplies and life cycle terms. The needs of fertilized eggs will be introduced.
2. Inside the Egg: During this classroom visit, students will get to see blood vessels and embryos forming inside the eggs by candling. Youth explore the life cycle and poultry parts and functions.
3. New Needs: Youth review the needs of eggs, explore the needs of chicks, and compare them to the needs of adult chickens and humans. New environments are prepared in the classroom to meet needs in preparation of hatching. This session may also include a virtual farm tour exploring a chicken's environment and how they impact it and use it to live.
4. Excellent Eggs: Youth will learn why eggs and poultry are produced and the power of protein. Students will be introduced to MyPlate. Upon this session, chicks and classroom materials (excluding student work books) will be removed from the classroom. ISU Extension will coordinate and provide all chicks with a home after hatching and departure from the classroom. *Optional activity: chick gender reveal party.*
5. Daily Classroom Activities: Teachers are expected to leave the incubator plugged in. A daily calendar with facts about changes inside the egg and pictures of development will be provided. Teachers may select an activity from the student workbook for youth to complete each day. Activities include counting, coloring, sorting, diagrams, etc. Each day a model egg may be opened.

Virtual Adaptation

Yes, it is possible to adapt and deliver this program to fit a virtual setting.