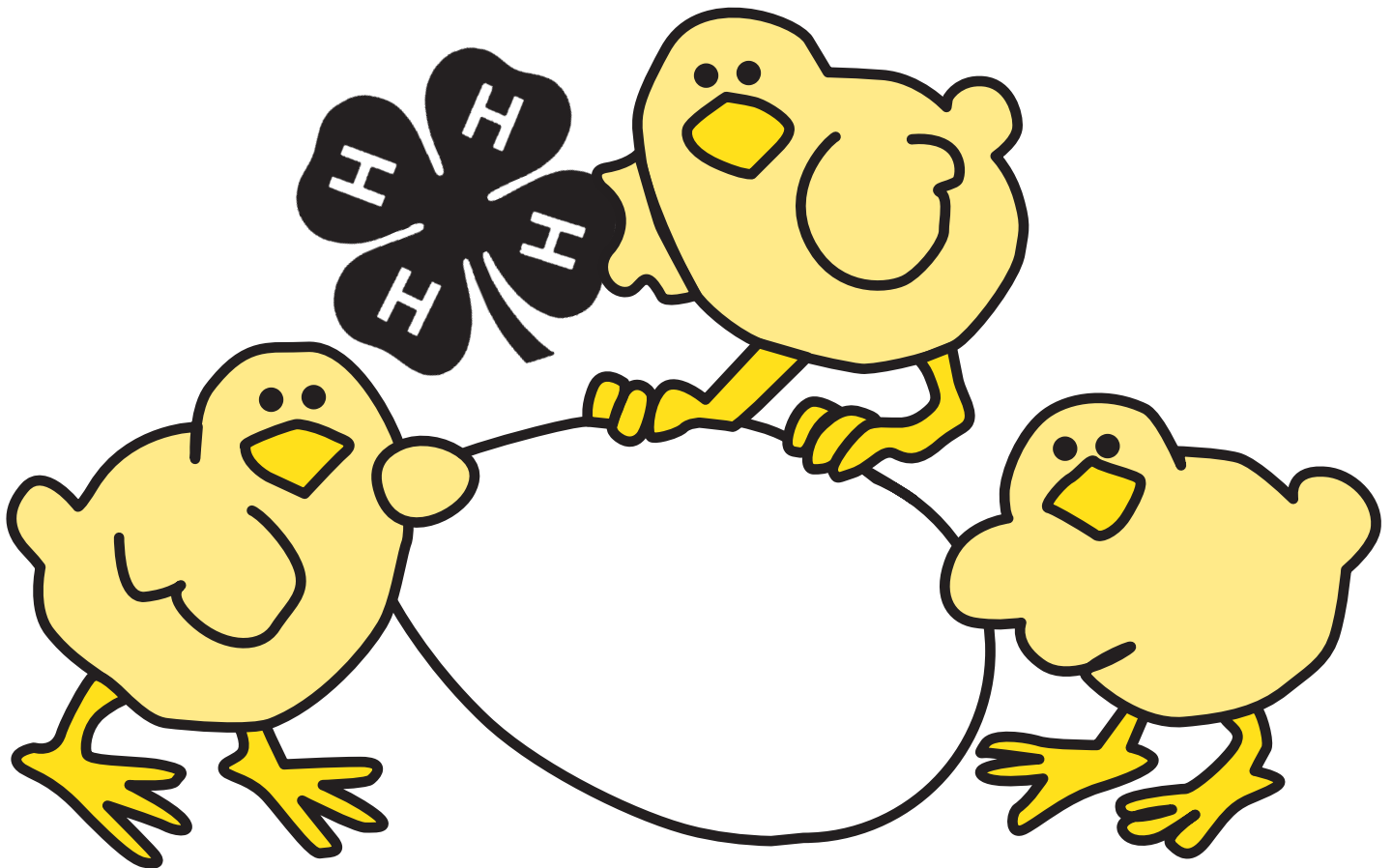


4-H 1500
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\$5.00

The Incredible EGG

**4-H Classroom
Curriculum Guide
For Grade Level 4-5**



**This curriculum is a product
of a grant funded by the Meyer Memorial Trust.**

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Introduction

Oregon State University Extension Service is pleased to share with you a tremendous teaching resource for 4th and 5th grade classes. This unique curriculum, “The Incredible Egg,” integrates the concepts of chick embryology into easy-to-use math, science, and language arts lesson plans. In addition, lessons for this curriculum have been linked to “content standards” (as identified in the Oregon Department of Education publication, *Content Standards, Science* [draft], March 1996), in an “at-a-glance” curriculum matrix. A summary of the significant 4-H life skill outcomes that are targeted for each lesson also is provided.

The lesson plans in this package are designed to be used in sequence or as independent lessons within your classroom curriculum. For example, you may use the lesson plans to address specific math, science, and language arts concepts, or as a combined unit on chick embryology. Teachers using these materials as a chick embryology unit are provided a post-test to measure student achievement, and a certificate of participation for students in this 4-H program.

One of the unique features of this curriculum is that you do not have to incubate eggs to achieve the learning objectives. However, teachers who wish to incubate fertilized eggs to increase student interest in the subject are encouraged to contact the local Extension Service for assistance. They can help you locate fertilized eggs and an incubator. In fact, many county Extension offices offer training programs for conducting a classroom chick embryology program. Specific information on the operation of incubators and the hatching of chicks is contained with the Support Materials in the Appendix of this handbook.

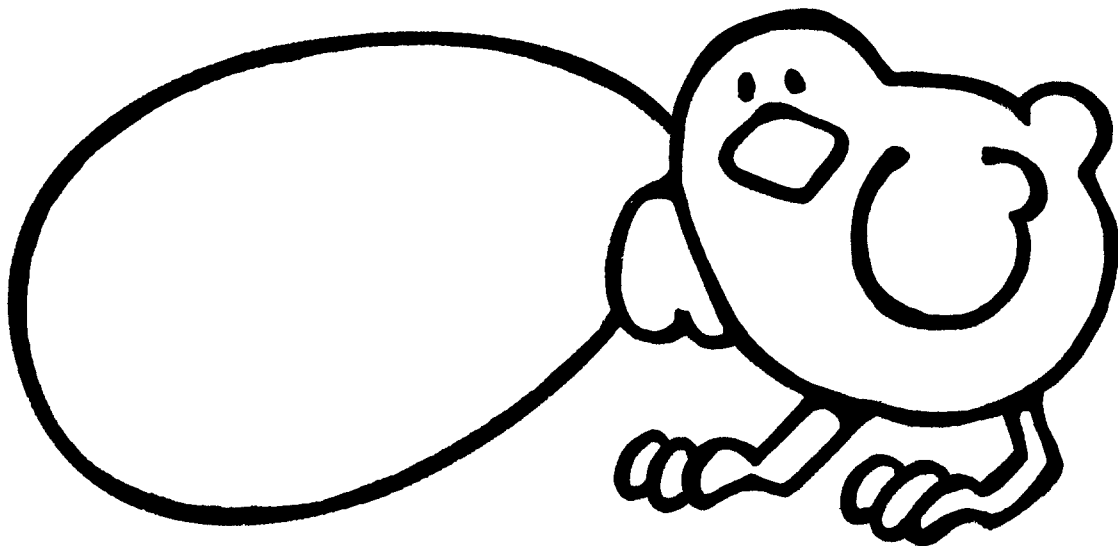
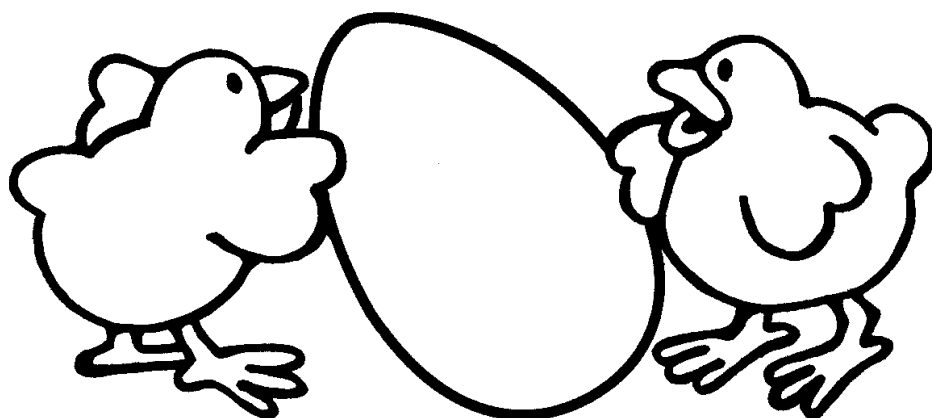


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This publication was adapted from the Nebraska Ag in the Classroom Program titled “The Incredible Egg,” originally prepared by Kathy Schellpeper in 1988; and from the 1980 Ohio State University 4-H Classroom Curriculum Guide, also titled *The Incredible Egg*. This publication was revised and prepared for use in the Oregon 4-H animal science program by J. Bradford Jeffreys, Extension specialist, 4-H youth development; and James C. Hermes, Extension poultry specialist, Department of Animal Science. Additional assistance was provided by the following:

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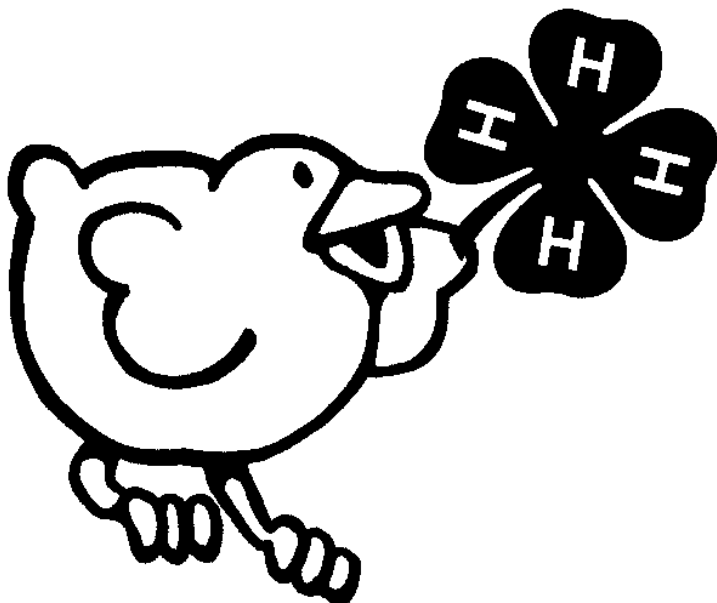
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County and district 4-H personnel from the southwest and south Extension districts of Ohio

Significant 4-H Life Skill Outcomes

Life Skill Areas	Targeted Lessons			
	1	2	3	4
Learning to Learn				
Developing intellectual curiosity	✓			
Learning through experience	✓	✓	✓	✓
Learning by using the five senses				✓
Leading Self and Others				
Working on a team	✓		✓	✓
Identifying one's own competencies			✓	
Relating to Others				
Trusting one's self and others	✓			
Accepting diversity	✓		✓	✓
Communicating with Others				
Disagreeing and refusing	✓			
Speaking before a group		✓	✓	✓
Creative expression			✓	
Planning and Organizing				
Setting short-term goals		✓		



The Incredible Egg

4-H Chick Embryology Program—Biological Science

The 4-H Incredible Egg program is available through your county Extension office. It involves learning more about the egg than just how offspring are produced. Classes have the option of seeing firsthand how baby chicks are hatched. (Incubators are available through the Extension office.)

Planning Format

Grade Level 4th–5th grade

Goal Cluster or Program Goals	Program Objectives	Subject Area/ Objectives	Activities
The students will develop skills in asking scientific questions and/or making predictions that can be investigated through reading and observation. (5.0*)	<ul style="list-style-type: none"> The students will recognize and be able to describe parts of the egg 	Science/Language Arts <ul style="list-style-type: none"> Identify and name the parts of an egg 	<ul style="list-style-type: none"> Identify the parts of the egg Explain the functions of the parts of the egg
Lesson Two The students will understand and apply unifying concepts and processes; i.e., how to order a group of objects; to comprehend the role of parts within a system, and identify interactions among those parts; the use of scientific models to explain observations; and the measurement and recording of properties associated with an object or event. (1.0*)	<ul style="list-style-type: none"> The students will recognize in which food group eggs belong The students will understand the nutritional value of an egg 	Science/Health/Math <ul style="list-style-type: none"> Identify the food group in which eggs belong Understand the nutritional value of eggs and realize how many foods use eggs as an ingredient 	<ul style="list-style-type: none"> Identify in which food group the egg belongs Explain the nutritional value of eggs Record all food eaten in a 2-day period Identify which foods eaten contain eggs

* *Content Standards, Science* (draft), Division of Curriculum, Instruction and Field Services, Oregon Department of Education, March 1996.

Goal Cluster or Program Goals

Lesson Three

The students will understand the structures and functions of living organisms and their interactions with the environment; i.e., describe how adaptation helps an organism survive in its environment. (3.0*)

- The students will recognize how eggs are hatched
- The students will recognize ideal incubator conditions in hatching eggs

Lesson Four

The students will develop the skills needed to draw conclusions and make inferences from results of investigations. (5.3*)

- The students will recognize the scientific method
- The students will draw conclusions on experiments

Subject Area/ Objectives

Activities

Science/Language/Arts/Math

- Identify the two ways in which eggs are hatched
- Describe the incubator conditions necessary for a healthy chick to hatch
- Explain why these conditions are necessary

- Describe conditions necessary for proper incubation
- Observe the developing embryo
- Take egg weights during incubation

Science

- Use the scientific method of observing and recording during an experiment
- Draw conclusions after the experiment

- Record the difference between a raw and hard-cooked egg
- Observe and describe the physical aspects of the egg

