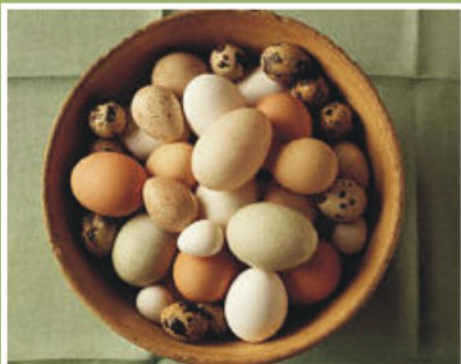


# EGGS



**#3457**

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OPEN-CAPTIONED  
FILMS FOR THE HUMANITIES  
1994

Grade Levels: 2-6

10 minutes

2 Instructional Graphics Enclosed

## **DESCRIPTION**

After gathering eggs from the hen house, Jeffrey and Kate learn about the parts of an egg and what each part does. Experiments with eggs show how strong they are and how weak they can become.

## **ACADEMIC STANDARDS**

Subject Area: Science

- Standard: Understands the genetic basis for the transfer of biological characteristics from one generation to the next
  - Benchmark: Knows that plants and animals closely resemble their parents (See Instructional Goal #6)
- Standard: Understands and applies basic principles of hypothesis testing and scientific inquiry
  - Benchmark: Asks "how do you know" in appropriate situations and attempts to provide reasonable answers when others ask the same question (See Instructional Goals #2, #3, and #4)
  - Benchmark: Understands that changing one thing sometimes causes changes in something else and that changing the same thing in the same way usually has the same result (See Instructional Goal #5)

## **INSTRUCTIONAL GOALS**

1. To identify the parts of an egg.
2. To present the function of the parts in relation to a growing chick inside.
3. To clarify the difference between a fertilized and unfertilized egg.
4. To demonstrate how calcium in the shell provides strength and protection to a growing chick.
5. To demonstrate what occurs when calcium has been removed from the shell.
6. To emphasize that various animals reproduce from eggs.
7. To explain that eggs are a source of food.

## **VOCABULARY**

1. yolk
2. air sac
3. fertilized
4. unfertilized
5. calcium
6. acid
7. nutrients
8. germinal spot
9. albumen

## **BEFORE SHOWING**

1. List animals that lay eggs. Keep this list as a reference for the video.
2. On a graphic organizer, record prior knowledge about eggs.
3. Discuss foods that are typically eaten for breakfast and determine where these foods originate.
4. Using a diagram, name and label the parts of an egg. (See INSTRUCTIONAL GRAPHICS.)

## **DURING SHOWING**

1. View the video more than once, with one showing uninterrupted.
2. Pause the video before the outcome of the calcium experiment to elicit predictions.
3. Pause the video before the outcome of the experiment in which the egg has been placed in the container of vinegar and encourage different hypotheses.

## **AFTER SHOWING**

### **Discussion Items and Questions**

1. Review the list of egg-laying animals generated in BEFORE SHOWING. Discuss how the animals' eggs are alike and different. Add other animals to the list.
2. Discuss the functions of the egg parts:
  - a. shell
  - b. germinal spot
  - c. albumen
  - d. yolk
  - e. air sac
3. Discuss the difference between a fertilized egg and an unfertilized egg. Explain why a rooster and a hen are necessary for chicks to be born.
4. Why is an egg a perfect place for a growing chick?
5. What makes an egg so strong?

### **Applications and Activities**

1. On sentence strips, label the parts of an egg and their functions. Cut the sentence strips apart, separating the egg part from the function. Scramble and match.
2. Make corrections or additions to the graphic organizer concerning knowledge about eggs. (See BEFORE SHOWING.)
3. Using three eggs and books, re-create the experiment from the video.
  - a. Hypothesize the number of books that can be placed on eggs without causing them to break.
  - b. Experiment by placing eggs in formations other than triangular to test strength.
  - c. Experiment with a different number of eggs in testing the shell strength.
  - d. Record the outcomes of each variation.
4. Re-create the experiment to strip calcium from eggshell. Place eggs in other liquids and describe the results.
5. Make a list of words to describe the eggshell before and after the vinegar experiment.
6. Re-create the squeezing experiment (see INSTRUCTIONAL GRAPHICS). Relate how the shape of the egg is important in the laying process.
7. Play an Egg/Animal Guessing Game.
  - a. Obtain pictures of animals that originate from eggs.
  - b. Write a clue about each of these animals on small slips of paper.
  - c. Put clues inside plastic eggs.
  - d. "Crack" the egg; read the clue.
  - e. Match the clue with the animal picture.
8. Gather various grades of eggs. Do the following activities with them.
  - a. Arrange them according to size going from the smallest to the largest.

- b. Weigh eggs to discover differences.
  - c. Crack eggs open to observe sizes and colors of yolks.
  - d. Gather egg recipes and formulate a cookbook about eggs.
  - e. Present a variety of cooked eggs in various forms.
9. Create an imaginary animal that hatches from an egg. Design an eggshell for it.
  10. Visit a farm or hatchery to view egg production and hatching.

## **INSTRUCTIONAL GRAPHICS**

- PARTS OF AN EGG
- THE SQUEEZE TEST

## **RELATED RESOURCES**

### **Captioned Media Program**

- Nature's Builders #2203
- Starting Life #3299
- The Turtle #2438

### **World Wide Web**

The following Web sites complement the contents of this guide; they were selected by professionals who have experience in teaching deaf and hard of hearing students. Every effort was made to select accurate, educationally relevant, and "kid-safe" sites. However, teachers should preview them before use. The U.S. Department of Education, the National Association of the Deaf, and the Captioned Media Program do not endorse the sites and are not responsible for their content.

- HATCHING EMUS <http://www.siec.k12.in.us/~west/proj/emu/>

Mrs. Strange's second-grade class has hatched emu eggs. Look at the size of the eggs and see baby emus.

- GOLDEN EGG FARMS <http://www.goldeneggs.com>

This is an egg-citing children's site. There are activities, games, pictures, jokes and nutrition facts.

- KIDZ KORNER  
<http://www.mda.state.mi.us/kids/stories/farmlike/chickens/index>

An 11-year-old girl shows different responsibilities she faces in raising chickens.

- ROBINCAM <http://www.publishonline.com/robin/robincam.htm>

Visit a robin's nest located in a flowerpot on a porch. Mother Robin's eggs have hatched.

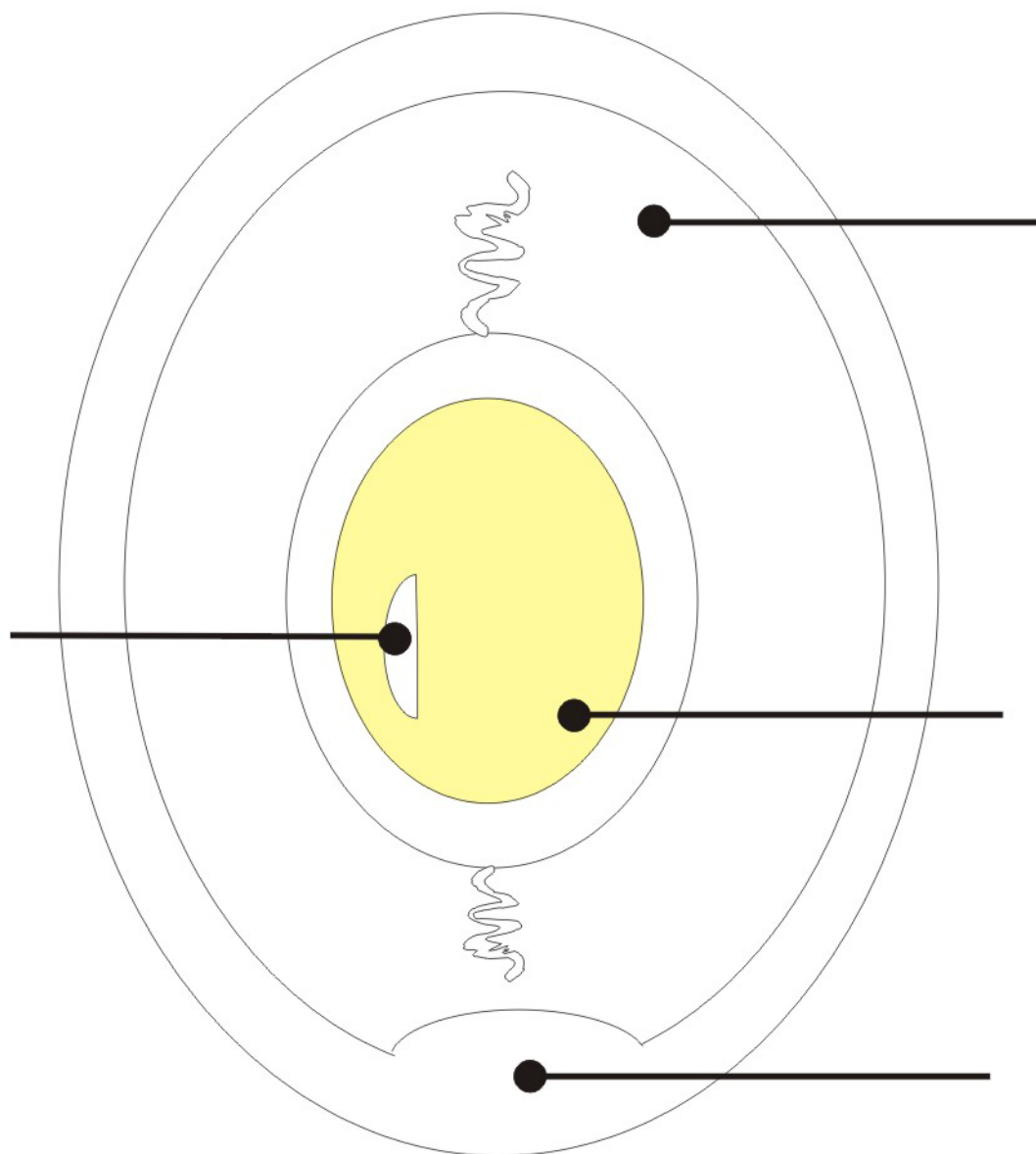
- METZER FARMS DUCK AND GOOSE HATCHERY <http://www.metzerfarms.com/blown.htm>

Along with decorated blown duck eggs, various sizes of duck and goose eggs can be ordered.

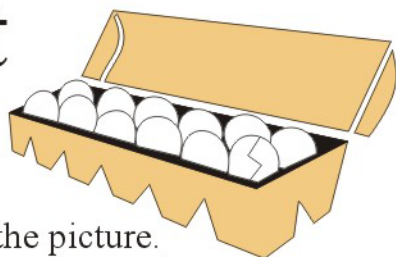
## Parts of an Egg

**Directions:** Label the parts of an egg:

yolk, germinal spot, albumen, and air sac.



# The Squeeze Test



## Directions:

Use 4 real eggs. Mark x's on them as shown in the picture. What will happen when the egg is squeezed at the x's? Write down your prediction. Squeeze the egg. Record or draw what happened in the outcome.



**Prediction**

**Outcome**

1.



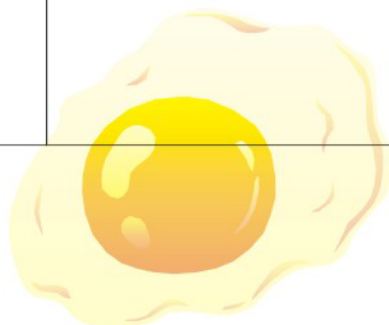
2.



3.



4.





**PLEASE RETURN LESSON GUIDE  
WITH VIDEO**

**Lesson guide also available  
online at *www.cfv.org***

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