

Unit Plan Title: Discovering Eggs

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Grade Level: First

Subject Area: Science & Math

State Curriculum Standards met in this lesson:

Science Standards:

GLE 0107.Inq.1 Observe the world of familiar objects using the senses and tools.

GLE 0107.Inq.2 Ask questions, make logical predictions, plan investigations, and represent data.

GLE 0107.Inq.3 Explain the data from an investigation.

0107.Inq.1 Use senses and simple tools to make observations.

0107.Inq.2 Communicate interest in simple phenomena and plan for simple investigations.

0107.Inq.3 Communicate understanding of simple data using age-appropriate vocabulary.

0107.Inq.4 Collect, discuss, and communicate findings from a variety of investigations.

Math Standards

GLE 0106.1.2 Apply and adapt a variety of appropriate strategies to problem solving, including **estimation**, and reasonableness of the solution.

0106.4.6 Recognize the essential role of units in measurement, and understand the difference between standard and non-standard units.

0106.4.7 Understand and use comparative words such as long, longer, longest; short, shorter, shortest; tall, taller, tallest; high, higher, highest.

Short Description of Lesson:

Students will make a KWL chart for eggs, listen to stories about eggs, work cooperatively in eggs discovery centers. While in centers, students will dissect and label the parts of an egg, measure an egg and graph results, discriminate between oviparous and non oviparous animals, and research an oviparous animal.

Materials, Resources and Technology:

Books: All About Eggs, Eggs, Seven Eggs, & Weekly Reader - "Sizing Up Eggs"

Student handouts: teacher generated handouts (below): egg research page, egg measurement page, egg dissection page, pre & post test

Classroom supplies: eggs fresh from the carton and boiled eggs also (use white and brown and small and large eggs), paper, crayons, scissors, glue, pencils, rulers, construction paper, chart paper, coloring pages with pictures of different animals, eggs, make homemade egg shaped books (cut out five oval pieces of white paper and staple together – do one for every student)

Day 1:

Introductory Procedures:

Students will begin the lesson in a brainstorming session creating a K-W-L chart. They will discuss what they know about eggs and what they would like to know/learn about eggs. At the conclusion of the unit, students will revisit the chart to add what was learned.

Students will listen to All About Eggs, Eggs, & Weekly Reader - "Sizing Up Eggs" as they are read aloud by the teacher. Students will discuss the material learned in these texts. Higher order thinking questions will be posed and discussed during this time.

Day 2:

Read to students Seven Eggs by Meridith Hooper. Discuss the term oviparous with students. Explain that oviparous means egg laying, if an animal is oviparous, it lays eggs instead of having a live birth like mammals.

Give students homemade egg books (see materials). Tell students to make up their own title for the story and write it on the front page. On all the other pages have students write "A _____ is oviparous". Then have students go back and write in oviparous animals on each page and illustrate.

Days 3-4:

Tell students they will participate in these egg centers: a measurement, dissection, discrimination, and research centers. The students can be rotated through these centers over the next 2 days.

The students will be given directions for each egg discovery center that they will participate in. The following describes each center in detail:

Measurement center - students will choose an egg to measure with a ruler. On the measurement page (below) students will record his/her results.

Dissection center - students will crack and study the inside of an egg and will dissect and study a boiled egg. Students will complete the dissection page (below). With this group, the teacher will discuss the parts of an egg and how they work together.

Discrimination center - students will color and cut out pictures of animals that are oviparous and glue them to construction paper. Students will write "Oviparous Animals" at the top of construction paper.

Research center - Using various egg books and texts, the students will complete an egg research paper (below) on an oviparous animal and its eggs.

Day 5:

The students will come back together as a large group and share activities and work done in each center.

Adaptations for Special Learners:

Higher functioning students will be able to select research materials better suited to his/her reading ability. These same students will also be asked to provide more lengthy explanations and details on his/her handouts. Students with low literacy abilities will be paired with higher functioning students.

Supplemental Activities: Extension and remediation:

For students who have difficulty completing center work, the teacher will work in the center one on one with those students later during the day. Students will also watch the video *The Magic School Bus Cracks a Yolk* and read the book Chicken and Egg to extend concepts taught in the lesson.

Assessment/Evaluation:

For a formal evaluation, an egg pretest and posttest can be given at the beginning and end of the unit (80% or higher - mastery, 79% or lower - non-mastery). Students will also use a folder to collect a portfolio of work developed in this unit (rubric score of 3 or higher - mastery, score of 1-2 - non-mastery). Students will also be assessed informally as the teacher circulates and monitors student progress during the lesson offering advice and support as needed.

Student Products:

Students will complete an egg research page, an egg observation page, an oviparous animal cut-out page, and an egg cross section page.

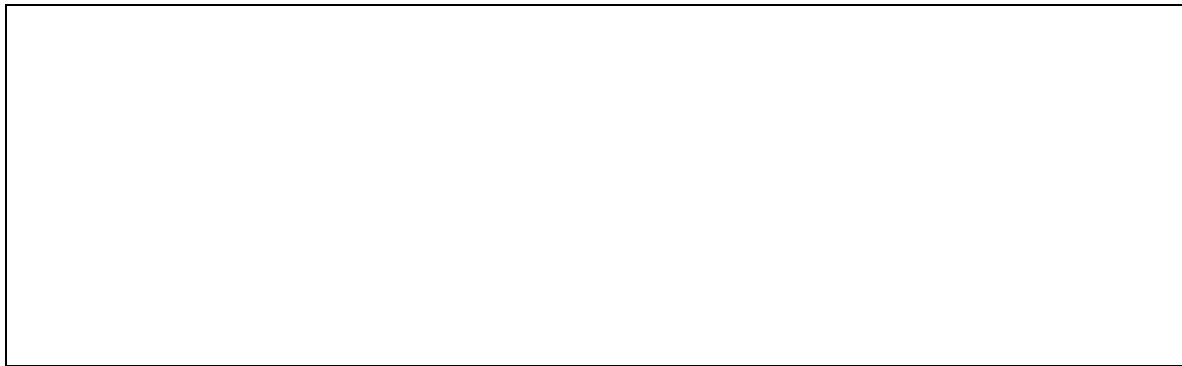
Name

Egg Research

Oviparous animal:	Where it lays eggs:	Tell about eggshell:	Number of eggs laid:
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Draw a picture of your oviparous animal, a nest for it, and the eggs in the nest.



Write one fact you learned today about eggs:

Eggs Pre & Post Test

Name

1. Eggs are _____.

rectangles oval square

2. Animals that lay eggs are called _____.

carnivorous herbivores oviparous

3. The _____ protects the inside of the egg.

yolk eggshell embryo

4. The _____ can grow into a chick.

embryo eggshell air pocket

5. The _____ lays the largest eggs of all.

cuckoo bird elephant ostrich

6. The _____ is an animal that lays eggs.

turtle tiger rabbit

7. The _____ is food for the growing chick inside the egg.

eggshell membrane yolk

8. Frogs lay eggs in water.

true false

9. Eggs are different sizes.

true false

10. Name 3 animals that lay eggs. _____

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true false

9. Eggs are different sizes.

true false

10. Name 3 animals that lay eggs. answers will vary _____

Egg Measurement

Name

Draw a picture of your egg.



The color of my egg is _____.

Use linking cubes to measure the length of your egg.

_____ linking cubes long

Estimate how many inches long you think your egg might be?

_____ inches long

Using a ruler measure the length of your egg. How long is your egg?

_____ inches long

My egg was _____ my estimate.

longer than

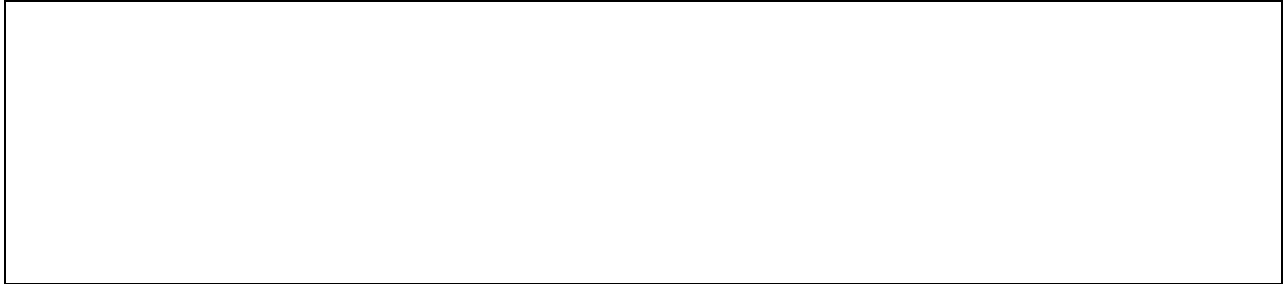
shorter than

the same size as

Egg Dissection

Name

Draw a picture of your cracked egg, including the shell.



Cut your boiled egg in half.

As your teacher points out these parts of the egg, write in these answers.

The hard part of the outside of an egg is called the _____.

This keeps the inside of the egg safe.

The thin “skin like” material that surrounds the egg is called the _____.

_____ . It also protects the inside of the egg.

The white part of the egg is called the _____. It protects the embryo that is growing inside the egg and provides nutrients.

The yellow part of the egg is called the _____ and is the food that the growing embryo eats while inside the egg.

The tiny white part next to or inside the yolk is the _____. It will be animal that comes out of the egg.

Egg Dissection

Name

Draw a picture of your cracked egg, including the shell.

Drawings will vary, but should include the shell, albumen, yolk, embryo.

Cut your boiled egg in half.

As your teacher points out these parts of the egg, write in these answers.

The hard part of the outside of an egg is called the eggshell.

This keeps the inside of the egg safe.

The thin “skin like” material that surrounds the egg is called the membrane. It also protects the inside of the egg.

The white part of the egg is called the albumen. It protects the embryo that is growing inside the egg and provides nutrients.

The yellow part of the egg is called the yolk and is the food that the growing embryo eats while inside the egg.

The tiny white part next to or inside the yolk is the embryo. It will be animal that comes out of the egg.