

## SCIENCE

Students love learning about animals! In this lesson, students will learn about animals that lay eggs and how animals have diverse life cycles. Students will also look for patterns and analyze and interpret data to determine how species are alike and different. This fascinating lesson supports the Grade 3 Next Generation Science Standards and should be used alongside *The Egg Book*.

### NGSS DCI alignment

**3.LS1.B** Reproduction is essential to the continued existence of every kind of organism. Plants and animals have unique and diverse life cycles.

### Science and engineering practices

**Analyzing and Interpreting Data** Analyze and interpret data to make sense of phenomena using logical reasoning.

### Crosscutting concepts

**Patterns** Similarities and differences in patterns can be used to sort and classify natural phenomena.



## ELA connections

**RI.3.1** Ask and answer questions to demonstrate understanding of a text, referring explicitly to the text as the basis for the answers.

**SL.3.4** Report on a topic or text, tell a story, or recount an experience with appropriate facts and relevancy, descriptive details, speaking clearly at an understandable pace.

## Resources needed

- A copy of *The Egg Book* (9780744069969)
- Animal fact sheets (Also available on Learning.DK.com)
- Egg templates (Also available on Learning.DK.com)
- Scissors
- Drawing and coloring materials
- \*Optional: Key vocabulary and photos or pictures of animals that lay eggs (Both also available on Learning.DK.com)

## Key vocabulary

animal, mammal, egg, fish, reptile, amphibian, bird, insect, human, mollusk, born, young, grow, baby, adult, hatch, develop, lay, shell, clutch, embryo, nest, mother, father, parent, cell, fertilize, incubator, yolk, egg white, albumen, chick, larva, same, different, change, habitat, camouflage

## Prior learning

Engage in prior learning by asking students the names of species that they know. Record the names of the species. Then, ask students if they know the names of a young animal in each species and describe what happens as young grow and change to become adults. For example, birds are a species, and ducks are a type of animal within a species. Young ducks are called "ducklings," and their feathers change color and texture as they grow.

## Lesson Plan

TIME	TEACHER ACTIVITY	ADAPTATIONS
<b>5 mins</b>	<p>Explain to the class that they will learn how animals have similarities and differences in their life cycles and that some young animals are hatched from eggs.</p> <p>Give students 30 seconds to tell a partner everything they know about animal eggs.</p> <p>Ask for information from the class, discuss what they think they already know, and record student ideas. Then, ask students if they would like to know anything about animal eggs. Write their questions down to refer to later.</p>	<p>Visual learners will appreciate a timer.</p> <p>Some students may want to record their ideas on a whiteboard or paper.</p> <p>An adult may partner with a student(s) to offer support.</p>
<b>10 mins</b>	<p>Introduce <i>The Egg Book</i> to the class. Ask if they know which animals appear on the front cover.</p> <p>Tell students they will learn about various animal species in this book, including birds, fish, reptiles, and amphibians. Ask the students if they know what these words mean and for examples of types of birds, fish, reptiles, amphibians, and insects.</p> <p>Look at the pages "What is an egg?" and "Who has eggs?" together, reading the text and discussing the photos and illustrations.</p>	<p>For visual learners, display the key vocabulary and pictures of animals that lay eggs.</p>



## Lesson Plan

TIME	TEACHER ACTIVITY	ADAPTATIONS
<b>20 mins</b>	<p>Place students into five groups and assign a species to each group. Explain that they are going to find out the answers to the following questions and write and answer their own question about their species. Students will then present their findings to the rest of the class. Record the questions in a place where all students can see them. Students should write their responses to each question on the egg template also available on Learning.DK.com <a href="#">here</a> (Suggestion: Print on 11" x 17" paper.).</p> <p>Show students the egg template. Instruct students to cut around the egg and then fold their paper in half. Students should write the name of their animal on the front of the egg and write answers to their questions on the inside of the paper.</p> <ol style="list-style-type: none"><li>1. What is the name of the young animal?</li><li>2. Where does the adult animal lay eggs?</li><li>3. How long does it take for the young animal to hatch from the egg and look like the adult animal?</li><li>4. What are your animal's life cycle steps from hatching to becoming an adult?</li><li>5. Students should write their own questions and answers.</li></ol>	<p>Monitor group discussions and provide support and redirection as needed.</p> <p>Demonstrate clearly how to fold and cut the egg shape.</p>



## Lesson Plan

TIME	TEACHER ACTIVITY	ADAPTATIONS
<b>20 mins</b>	<p>Before the groups present, remind students to think about how the life cycles of the animals are different and similar, and to look for patterns.</p> <p>Each group should take turns presenting their findings to the class. Each student should read the question and answer. Students may need to read more than one question and answer depending on the size of the group. While other groups are waiting to present, they should construct one question to ask the presenting group and ask at the end of the presentation. The presenting group should answer the question.</p>	<p>Provide students with sentence starters to help them collect and retain information from each presentation. Sentence starters can also be used to help students form questions to ask at the end of the presentations.</p>
<b>5 mins</b>	<p>In an Exit Ticket, have students compare the life cycles from egg to hatching for two species. They should not compare the species they presented to another species. Have students look for similarities and differences in either the durations to hatch, the location of where eggs are laid, and the steps of the life cycle.</p>	<p>Present a list of the types of species to students.</p> <p>Some students may need assistance narrowing down a similarity and a difference to discuss. A sentence starter can help students form their answers.</p>



## Preparation for the next lesson

- What learning took place?
- Which aspects of this lesson went well? Which aspects could be improved upon?
- Note actions for the future.

## Assessment opportunities

- Could students discuss animals in terms of young and adults and how they grow and change as they age?
- Could students establish similarities and differences in patterns among animals of different species?
- Could students describe how the length of hatching time differs from species to species?

## Extensions for learning

- Let students research more animals that lay eggs.
- Find a video online to show the class of an animal hatching from an egg.
- Study the life cycle of an animal in more detail to help students understand how it changes and grows from young to adult.
- Use an art lesson to paint animals or make clay animals.
- Use the facts about the animals that students have learned, as well as their drawings, as the basis for a class presentation to the rest of the school.

