

Eggs-actly
where do eggs
come from?Subject Area:
Maths/Sciences/Arts

Lesson Overview

In this lesson students will identify animals that lay eggs as oviparous and represent their ideas and findings around their egg consumption with both mathematical and visual art displays. Students will explore the inside of an egg through a self-directed investigation and understand and describe an egg's journey from the farm to the supermarket. **Please note that as students will be handling eggs during this lesson we encourage students to wash their hands before and after handling eggs. In addition to that, we encourage you to refer to your school's health and safety policies, and follow any individual allergy action plans.**

Learning Intentions

- Understand where eggs come from
- Explore and respond to scientific questions through investigation
- Create artworks to communicate their ideas
- Describe displays using mathematical data language
- Identify and represent categories of animals and quantities of eggs using provided data

Teacher Notes

Resources and Materials

- Interactive Whiteboard (IWB)
- Supporting Interactive Lesson available at <https://www.australianeggs.org.au/education/primary/eggs-actly-where-do-the-eggs-we-eat-come-from/>

Exploration Activity

- Eggs (Uncooked, enough for 1 for every 2 students)
- Torches (1 for every 2 students)
- Magnifying glasses (1 for every 2 students)

Creative Activity

- Craft materials (such as coloured paper and other collage materials, scissors, glue, paint, coloured markers, etc.)
- Egg-shaped template (1 per student)

Differentiation

Teachers are encouraged to modify the activities as required in order to cater to diverse student needs.

Assessments

There are a number of informal assessment opportunities throughout this lesson including:

- Group discussions
- Group work
- Self assessment activities
- Peer assessment activities

Language/Vocabulary

albumen, air sac, amphibian, bird, birth, body, candling, categories, chalazae, chicken, data, different, disposed, eat, egg, farm, farming, feature, fertilised, fish, graph, hen, inconsistency, insect, lay, mammal, membrane, number, oviparous, produce, quantity, reptile, shell, size, supermarket, vitelline membrane, viviparous, yolk, young

Year 1 Curriculum Links

Mathematics

Strand: Statistics and Probability

Sub-Strand: Data Representation and Interpretation

Represent data with objects and drawings where one object or drawing represents one data value. Describe the displays ([ACMSP263](#))

Science

Strand: Science Understanding

Sub-Strand: Biological Sciences

Living things have a variety of external features ([ACSSU017](#))

Strand: Science Inquiry Skills

Sub-Strand: Planning and Conducting

Participate in guided investigations to explore and answer questions ([AC SIS025](#))

The Arts

Strand: Visual Arts

Use and experiment with different materials, techniques, technologies and processes to make artworks ([ACAVAM107](#))

Cross Curriculum Priorities

Sustainability

General Capabilities

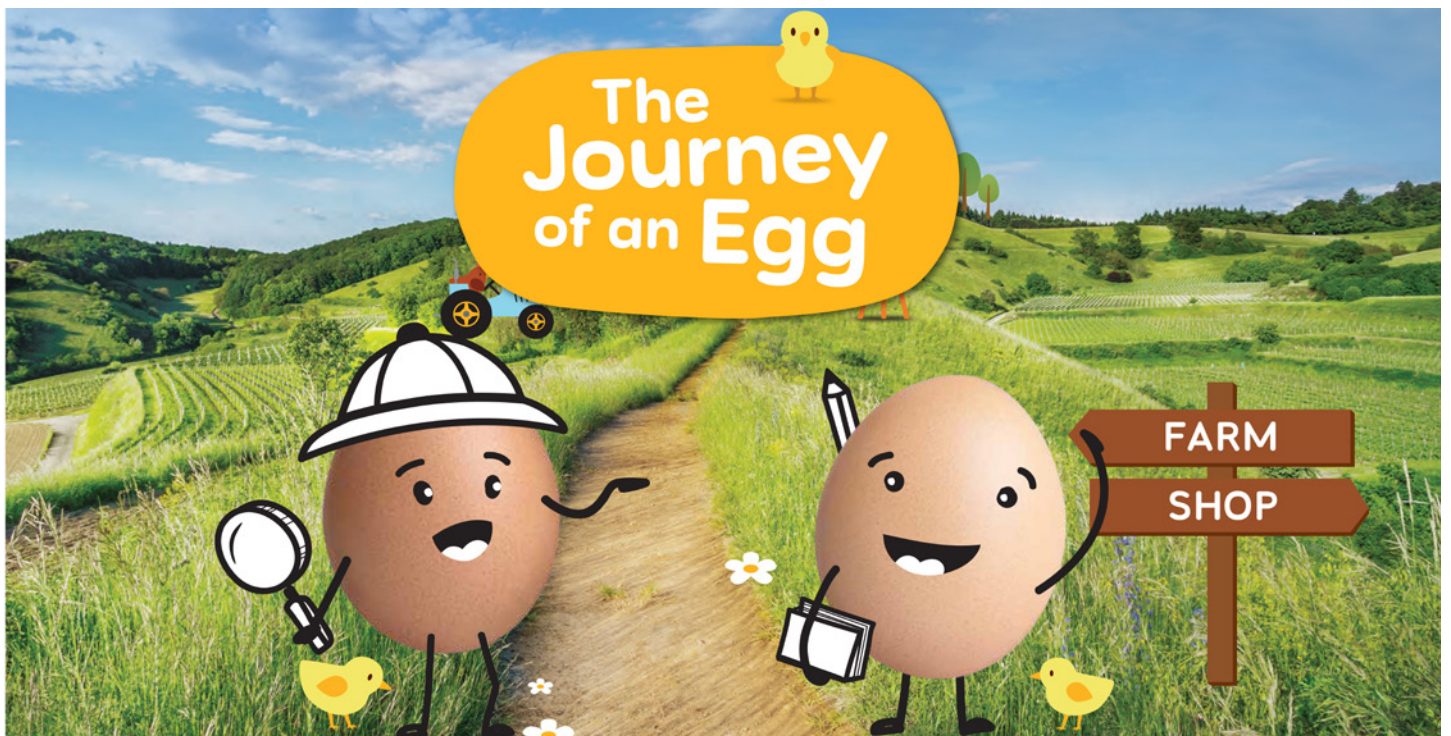
- Numeracy
- Critical and Creative Thinking



Eggsplore and learn more!

Lesson Introduction

- Gather the students as a group. Explain that this lesson will help them understand which animals lay eggs and how eggs get from the farm to them.
- Conduct the **pre-lesson quiz** with the students and discuss the students' responses to the questions. This is a good opportunity to assess students' existing knowledge of features of animals and where our food comes from.
 - All animals lay eggs. **False**
 - People can eat the eggs of all animals. **False**
 - Australian egg farms are important to our country. **True**
 - Animals lay their eggs in different places. **True**
 - The eggs of different animals can look completely different. **True**
- Explain to the students that some animals give birth to live young, and some animals lay eggs. As a class, complete the **Animal Categories** chart on the interactive lesson asking students to contribute names of animals to list in each category.
- Explain that animals which produce eggs are called oviparous animals. Of these oviparous animals, people only eat the eggs of some of them. Play the game **Do We Eat These Eggs?** on the IWB to click and reveal the animals whose eggs we eat. Encourage the students to discuss their own experiences of eating eggs and any animal's eggs that were surprising to the students.
- Ask the students, "how do eggs get from the farm to us?" Allow students to brainstorm their ideas and share their thoughts before watching **The Journey of an Egg** video on the IWB. Ensure students have a clear understanding of how we are able to get our eggs from farms.



Lesson Activities

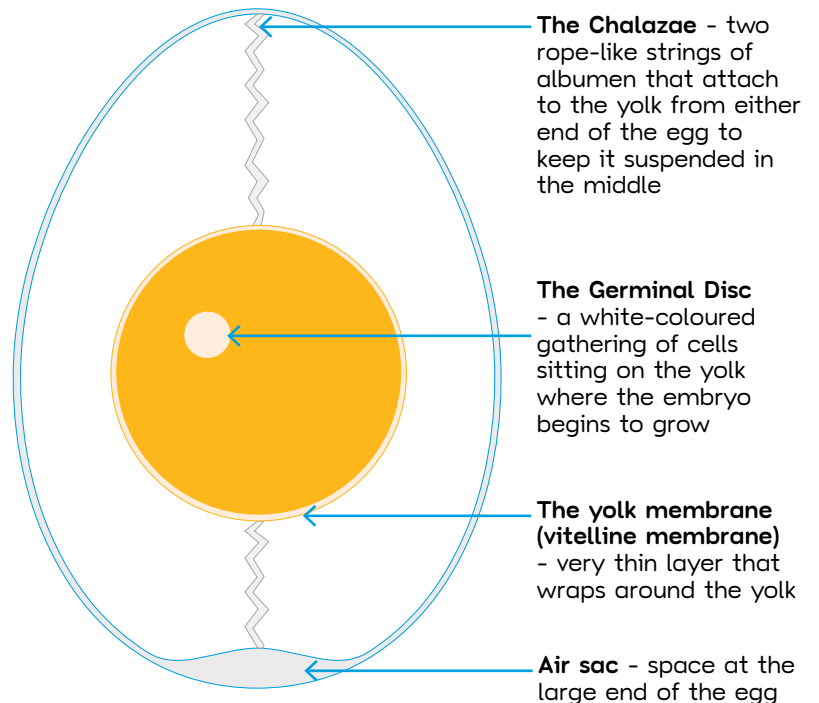
Teachers are encouraged to select from the below activities to best suit the needs of their students and modify as required. Please note that some of the following activities will need to be set up prior to the lesson.

Exploration Activity

1. Explain that farmers use a technique called 'candling' to look inside fresh eggs and sort the bad ones from the good ones. The high quality eggs go to the supermarket and the others are used in alternative processed egg products, such as dry cake mix. When determining whether an egg is good or bad, farmers will use a special light to look for cracks in the shells, inconsistencies in the yolk or albumen (white), and inspect the size of the air sac.

2. Split students into small groups and provide each group with an egg. Ensuring the class has access to the range of equipment required as outlined in the resources section of this lesson plan; challenge students to work through the following steps:

- Holding the egg up carefully, shine the light from the torch onto the egg.
- While shining the light on the egg, determine whether there are any cracks in the egg's shell.
- Keeping the light on the egg, identify some pores in the egg's shell.
- Use the torch to try and see through the shell; identify the air sac (space at the large end of the egg), the yolk, and the chalazae (strings of thickened albumen holding the yolk in place).



Lesson Activities *(continued)*

Creative Activity

1. Invite students to choose an oviparous animal that they would like to have as a pet.
2. Discuss the different types of egg shells in the animals suggested, i.e. a frog lays eggs without a shell, a snake lays eggs with a soft shell and birds lay eggs with hard shells.
3. Provide students with craft materials (such as coloured paper, scissors, glue, paints, coloured markers, collage materials, etc.) and an egg-shaped template. Challenge students to create a visual representation of their chosen oviparous animal hatching from their egg. Encourage students to be creative in the decoration of their egg.
4. Direct students to write a short text explaining what 'oviparous' animals are, what animal they chose and why they chose it.
5. Students' artwork could be displayed in the classroom as evidence of learning to support this topic.

Numeracy Activity

1. Open a discussion about how we eat eggs, including meals where eggs are perhaps incorporated into a mixture, such as a quiche, and what meals might feature them. Encourage students to brainstorm their egg-preferences and collect these ideas to refer to during this activity.

Teacher note: *don't forget to include fish eggs from sushi, or eggs used in fried rice dishes!*

2. Challenge students to collect data from peers about their favourite way to eat eggs. Ask students to use tally marks to collect preferences and then represent this data in an appropriate form, for example, a pictograph or bar graph.
3. Encourage students to describe their graph using mathematical language to identify the categories with the most and least amount of votes.



Funny face ham, leek and swiss cheese quiche

Lesson Closure

1. Gather the students as a group. Ask the question; “*What other foods do we get from animals?*” Encourage students to brainstorm their ideas and own experiences.
2. Conduct the **post-lesson quiz**. This is a good opportunity to assess student learning from the lesson.
 - Animals that lay eggs are called nocturnal. **False**
 - Animals lay different types and sizes of eggs. **True**
 - Egg farmers must check the eggs to make sure they can go to the supermarket. **True**
 - Hen eggs are the most popular type of eggs eaten in Australia. **True**
 - We can eat all of the eggs laid by oviparous animals. **False**

Going Further

1. Encourage students to keep an ‘egg diary’ at home to determine how many eggs their family eats over the course of a week. Compare their findings to the national average egg consumption statistics (2018) of 245 eggs per person, per year, or nearly 5 eggs per person, per week.
2. Encourage students to bring in different types of eggs from a range of animals that they have come across and create an exploration table in the classroom, allowing for further study of different types of eggs and oviparous animals. Support this exploration table with a range of information and story books on eggs and oviparous animals, for example; *Chickens Aren’t the Only Ones* by Ruth Heller and *Whose Egg is This?* by Lisa J Amstutz.
3. Discuss different types of egg shells and how this might reflect the environment that the animal lives in.