



LESSON OVERVIEW

In this lesson students will understand how to classify living things by identifying and sorting similar characteristics. They will learn about the lifecycles of plants and animals, gaining an understanding that offspring (including crossbred animals) may have similar characteristics to their parents. Students will learn how the evolving knowledge of animals has influenced farming practices and will draw comparisons of Australia's farming past to current farming practices.

AIMS AND OBJECTIVES

Upon completion of this lesson students will demonstrate an understanding of:

- Identifying living and non-living things
- Classifying living things into different groups
- How living things depend on each other
- How animal knowledge has helped inform farmers for cross breeding
- How farming has changed in Australia since the arrival of livestock in 1788
- How farming inventions and methods have changed over time

Key Learning Area	Year Level	Code/s	General Capabilities	Cross Curriculum Priorities	Curriculum Connections
Science	3	ACSSU044	Critical and Creative Thinking	Sustainability	Geography
	4	ACSSU072 ACSSU073	Literacy Numeracy		

STRAND CONTENT DESCRIPTION/S:

Year 3

ACSSU044 - Living things can be grouped on the basis of observable features and can be distinguished from non-living things

Year 4

ACSSU072 - Living things have life cycles

ACSSU073 - Living things, including plants and animals, depend on each other and the environment to survive



FARMING THROUGHOUT HISTORY

Year Levels 3 & 4

Key Learning Area	Year Level	Code/s	General Capabilities	Cross Curriculum Priorities	Curriculum Connections
History	3	ACHHS065	Critical and Creative Thinking	Aboriginal and Torres Strait Islander histories and cultures	English
	4	ACHHS081 ACHHK079	Literacy Numeracy Intercultural Understanding		
<p>STRAND CONTENT DESCRIPTION/S:</p> <p>Year 3 ACHHS065 - Sequence historical people and events</p> <p>Year 4 ACHHS081 - Sequence historical people and events ACHHK079 - Stories of the First Fleet, including reasons for the journey, who travelled to Australia, and their experiences following arrival.</p>					

ScOT CATALOGUE TERMS

Living things, classification, animal reproduction, plant reproduction, ecosystems, historical periods, chronological order, colonies, penal transportation, convicts, first contact, significant people

LANGUAGE/VOCABULARY

Livestock, classify, vertebrates, invertebrates, classify, mammal, amphibian, reptile, characteristics, First Fleet

RESOURCES/MATERIALS

Interactive whiteboard and video conferencing equipment



HIGHER ORDER THINKING SKILLS

Theory: Bloom's Taxonomy

Levels Addressed:

- ✓ 1. **Knowledge** – Exhibits memory of previously learned material by recalling fundamental facts, terms, basic concepts and answers about the selection.
- ✓ 2. **Comprehension** – Demonstrate understanding of facts and ideas by organising, comparing, translating, interpreting, giving descriptors and stating main ideas.
- ✓ 3. **Application** – Solve problems in new situations by applying acquired knowledge, facts, techniques and rules in a different, or new way.
- ✓ 4. **Analysis** – Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalisations.
- 5. **Synthesis** – Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.
- 6. **Present and defend opinions** by making judgments about information, validity of ideas or quality of work based on a set of criteria.

LESSON INTRODUCTION

1. Using the interactive whiteboard, conduct the **pre-lesson pop quiz**.
2. Introduce the concept of living and non-living things by asking students to list examples of each and state the characteristics that make them fall into each category.
3. All living things can be classified into different groups to show how they are alike. Ask students if they can think of any example of groups of animals.
4. Using the interactive whiteboard, display the **Animal Sorting game**. Explain the diagram to the students by stating that all living things can first be categorised into plants or animals and then broken down into smaller groups.
5. Using the animals strand only, show that they can be further categorised into vertebrates or invertebrates. Ask students to offer a description and example of each.
6. Focusing on the vertebrates, explain to the students that these groups can be further broken down into mammals, birds, fish, amphibians and reptiles. Students sort the animals into their correct classification groups.



MAIN BODY OF TEACHING

7. Explain to the class that all of these living things have lifecycles. Some animals lay eggs, whilst some give birth to live young. Plants grow from seeds or bulbs. Using the interactive whiteboard, ask students to **order the living things into their lifecycles**.
8. Ask the class to consider all of the living things that they have looked at so far, including plants. Pose the question 'How do living things depend on each other?' Elaborate on student answers and give examples such as:
 - Plants provide us with oxygen to breathe.
 - Bees spread pollen to help produce more flowering plants.
 - Some animals eat plants, such as sheep. Some eat other animals, such as lions.
 - Some animals, such as monkeys, eat parasites like lice off other animals to help keep them clean.
9. Understanding the way that animals are classified and the needs of living things has helped farmers determine the best ways to care for their animals. This knowledge has also helped in other ways, such as developing new breeds of animals to suit their environment. This has been particularly important to Australian farmers.
10. Since agricultural development began in Australia, farmers have depended on cattle and sheep that were able to survive in a hot environment. Over time farmers have crossbred their cattle and sheep to develop new breeds that can sustain the Australian environment. Display the **crossbreed slide** in the interactive lesson to further illustrate crossbreeding in animals.
11. Pose the question to the class 'How did farm animals such as sheep, cattle, goats, chickens and pigs come to be in Australia?' Discuss student responses and inform them that over 200 hundred years ago the First Fleet arrived in Australia. In 1788 the first livestock arrived and farming in Australia began. There were a very small number of animals compared to today's figures. Some of those included 7 cattle, 29 sheep, 74 pigs, 18 turkeys, 29 geese and 35 ducks. Australia now has 29.3 million cattle, 75.5 million sheep, 4.75 million pigs and 550 million chickens.
12. Display the **Story of Two Farms** slide on the interactive whiteboard and ask students to study the images of a historic and a current farm. Discuss the similarities and differences between the two.
13. Using the interactive whiteboard, display the **Australia's Farming History – the First 100 Years slide** and read through Australia's farming milestones with the class. Discuss why exploration and inventions have played such an important role in the growth and development of Australia's farms.

CONCLUSION

14. Conduct the post-lesson pop quiz using the interactive whiteboard.