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Depending on each other



AUSTRALIAN CURRICULUM CONTENT

Consider how people use scientific explanations to meet a need or solve a problem. (ACSHE051, ACSHE062, AC9S3H02)

Explain the roles and interactions of consumers, producers and decomposers within a habitat and how food chains represent feeding relationships. (ACSSU073, AC9S4U01).

Use interaction skills to contribute to conversations and discussions to share information and ideas. (ACELY1676, AC9E3LY02)

Listen for key points and information to carry out tasks and contribute to discussions, acknowledging another opinion, linking a response to the topic, and sharing and extending ideas and information. (ACELY1687, AC9E4LY02)

Plan, create, rehearse and deliver short oral and/or multimodal presentations to inform, express opinions or tell stories, using a clear structure, details to elaborate ideas, topic-specific and precise vocabulary, visual features, and appropriate tone, pace, pitch and volume. (ACELY1677, AC9E3LY07)

Plan, create, rehearse and deliver structured oral and/or multimodal presentations to report on a topic, tell a story, recount events or present an argument using subjective and objective language, complex sentences, visual features, tone, pace, pitch and volume. (ACELY1689, AC9E4LY07)



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Lesson 3

LESSON OBJECTIVE

Students will learn about the role of producers, consumers and decomposers in the environment, and how these living things depend on each other.

LESSON OVERVIEW

Activity 3.1	Keywords	20–30 mins
Activity 3.2	Producers, consumers and decomposers	30–40 mins
Activity 3.3	How living things depend on each other	50 mins
Activity 3.4	Just for fun	5–10 mins

CONTENTS

	Page
Australian Curriculum content	1
Contents	2
Resources and equipment	3
Lesson guide	4–5
Student resources	6–19
Answers	20–26



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Resources and equipment

ACTIVITY 3.1 – Keywords

1. [Understanding Ecosystems for Kids: Producers, Consumers, Decomposers – FreeSchool \(6.22\)](#).
2. Worksheet 3.1a – *Keywords and definitions*.
3. Worksheet 3.1b – *Keywords scramble*.
4. Worksheet 3.1c – *Keywords spelling list*.
5. Timer.

ACTIVITY 3.2 – Producers, consumers and decomposers

1. Worksheet 3.2a – *Pick the odd one out*.
2. Worksheet 3.2b – *The roles of living things on the sheep and cattle farm*.
3. Coloured pencils/makers.
4. Worksheet 3.2c – *Bookmark templates (1) or (2)*.

ACTIVITY 3.3 – How living things depend on each other

1. [How Plants and Animals Depend On Each Other \(3.42\)](#).
2. Worksheet 3.3a – *Depending on each other on the farm*.
3. Worksheet 3.3b – *Selwyn and Pip Job*.
4. [Biodiversity in Farming | Farmer Stories \(2.17\)](#).
5. [From City Life to Cattle Farming | Farmer Stories \(3.18\)](#).
6. Worksheet 3.3c – *Similarities and differences between the farms*.
7. Timer.

ACTIVITY 3.4 – Just for fun

1. Computer/digital device access.
2. Worksheet 3.4a – *Smart farm science scavenger hunt*.
3. [Smart farm science](#)
4. Timer.

ADDITIONAL READING/RESOURCES

- [Symbiosis: A surprising tale of species cooperation – David Gonzales \(2.22\)](#).



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Lesson 3

Lesson guide

ACTIVITY 3.1 – Keywords

1. As a class, watch the video clip [Understanding Ecosystems for Kids: Producers, Consumers, Decomposers – FreeSchool](#) (6.22) to gain a better understanding of the role of these living things in the environment. (Note: at 2.37–2.42 lions are eating meat. Determine suitability for own class).
2. Distribute Worksheet 3.1a – *Keywords and definitions* and read through the information with students. Allow time for students to individually re-read the terms and then allocate students into pairs. Set a five-minute timer and ask pairs to practise recalling the meaning of the terms with their partner. After five minutes, provide students with Worksheet 3.1b – *Keywords scramble*. Students work together to unscramble the keywords and recall and record their definitions together. (Answers page 20–21)
Optional: Provide students with Worksheet 3.1c – *Keywords spelling list*.

ACTIVITY 3.2 – Producers, consumers and decomposers

1. Allocate students into groups of three or four and distribute one copy of Worksheet 3.2a – *Pick the odd one out* for each group to observe. Allocate five minutes for groups to discuss with each other which of the three living things is the odd one out in the series of pictures and why (N.B – there is no correct answer to this activity).
2. After five minutes, nominate a speaker from each group to justify their choice and try to convince other groups to change their decision. Using the images from the worksheet, identify them as a producer, consumer and a decomposer.
3. Distribute Worksheet 3.2b – *The roles of living things on the sheep and cattle farm* and sets of coloured pencils/markers to each group. Allow time for the members of the group to highlight the important information on the worksheet (provide literacy support if needed) and complete the questions provided. (Answers page 23)
4. Using Worksheet 3.2c – *Bookmark templates (1) or (2)*, students use the information they have learnt to create three informative bookmarks about producers, consumers and decomposers.

ACTIVITY 3.3 – How living things depend on each other

1. Brainstorm with students the ways that they depend on each other within the classroom on a daily basis. Record ideas in a central area. (*Company, support, assistance with hard tasks, to help with jobs around the classroom to save time, to split roles and responsibilities with those that are skilled in particular areas, etc.*)
2. Introduce to students that all living things in an ecosystem rely on each other too and contribute to the health of the ecosystem in particular ways. Watch the video clip [How Plants and Animals Depend On Each Other](#) (3.42) to demonstrate ways in which living organisms around the world depend on each other for their survival.

Lesson guide continued next page



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Lesson 3

Lesson guide *continued*

3. Having diversity on a cattle, sheep or goat farm is also very important. Provide students with Worksheet 3.3a – *Depending on each other on the farm*. Students take time to read the descriptions about dependence on farms and match the correct descriptions to the images. Check answers after an appropriate time period. (Answers page 23)
4. Distribute Worksheet 3.3b – *Selwyn and Pip Job*, and watch the video clip [Biodiversity in Farming | Farmer Stories](#) (2.17) to learn about the importance of biodiversity in red meat production. Students should record answers on the worksheet as they are addressed in the clip. (Answers page 24)
5. Play the second video clip, [From City Life to Cattle Farming | Farmer Stories](#) (3.18) and engage in a discussion about the similarities and differences between the two livestock (cattle production) farms. Students should think about the environments in the two clips and how they were similar and different. They also should be encouraged to discuss what was important to the two farmers with respect to caring for the animals and plants on their farms. Use a venn diagram to organise the students' ideas.
6. Distribute Worksheet 3.3c – *Similarities and differences between the farms* to students and allow time for them to copy the information that has been provided during the class discussion. (Answers page 25).

ACTIVITY 3.4 – Just for fun

1. Allocate students into pairs and allow either computer/digital device access or project an image of the [Smart farm science](#) poster. The poster shows a sheep and cattle farm with many operations in action.
2. Set a four-minute timer and challenge students to locate as many organisms and objects on the farm poster as they can in the given time, recording their answers on Worksheet 3.4a – *Smart farm science scavenger hunt*. (Answers on page 26).



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Lesson 3

Student resources

ACTIVITY 3.1 – Keywords

Worksheet 3.1a	Keywords and definitions
Worksheet 3.1b	Keywords scramble
Worksheet 3.1c	Keywords spelling list

ACTIVITY 3.2 – Producers, consumers and decomposers

Worksheet 3.2a	Pick the odd one out
Worksheet 3.2b	The roles of living things on the sheep and cattle farm
Worksheet 3.2c	Bookmark templates (1) or (2)

ACTIVITY 3.3 – How living things depend on each other

Worksheet 3.3a	Depending on each other on the farm
Worksheet 3.3b	Selwyn and Pip Job
Worksheet 3.3c	Similarities and differences between the farms

ACTIVITY 3.4 – Just for fun

Worksheet 3.4a	Smart farm science scavenger hunt
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Keywords and definitions

Read the keywords and definitions below. Practise saying them once to yourself and then with a partner. Test each other on the meaning of the words.

depend

To rely on.

shelter

A place that gives protection.

producer

Any kind of green plant.

consumer

An organism gets its food by feeding on another organism (plant or animal).

decomposer

An organism that breaks down organic material.

herbivore

An animal that feeds on plants.

beneficial

Something that is good.





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Worksheet **3.1b**

Keywords scramble

Unscramble the keywords below and recall their meanings.

ersnmcou

ercordup

ermcdeopso

erbrehuio



Worksheet 3.1b continued next page



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Worksheet 3.1b continued

Worksheet 3.1b

Unscramble the keywords below and recall their meanings.

epdend

erelhst

eeiialcbnf





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Keywords spelling list

Spell the keywords below.

1.

2.

3.

4.

5.

6.

7.



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3-4 | WORKSHEETS

Worksheet **3.2a**

Pick the odd one out

Which living thing doesn't belong?

Grass/pasture



Dung beetle



Cow





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Worksheet 3.2b

The roles of living things on the sheep and cattle farm

Producers

Producers are green plants that use sunlight, carbon dioxide and water to make their own energy. This process is called photosynthesis. Plants release oxygen when they perform photosynthesis. It is important they do this, because we depend on producers to make oxygen for our survival!



Types of producers

Farmers provide their animals with many different types of plants in their diet. This plant is lucerne and sheep and cattle love to eat it. The cow in the picture below is eating *Leucaena* and it is an important plant in northern Australia.

Consumers

A consumer is a living thing that eats other organisms for energy. They cannot make their own food so they eat plants or other animals.



Herbivores

A herbivore is a consumer that eats only plants. Examples are cattle, sheep or goats.

Carnivores

A carnivore is a consumer too. Carnivores eat other animals, like foxes, dingos or eagles.

Decomposers

A decomposer is an organism that breaks down dead organic matter (plant material like leaves, animal poo (faeces) and even dead animals). They are VERY important to ecosystems because they return nutrients back into the soil to keep plants healthy.



Types of decomposers

Important decomposers on farms are dung beetles, earthworms and millipedes. Fungi are also decomposers. The dung beetle in the picture releases the nutrients in the dung back into the soil and also buries the smelly dung.

Worksheet 3.2b continued next page



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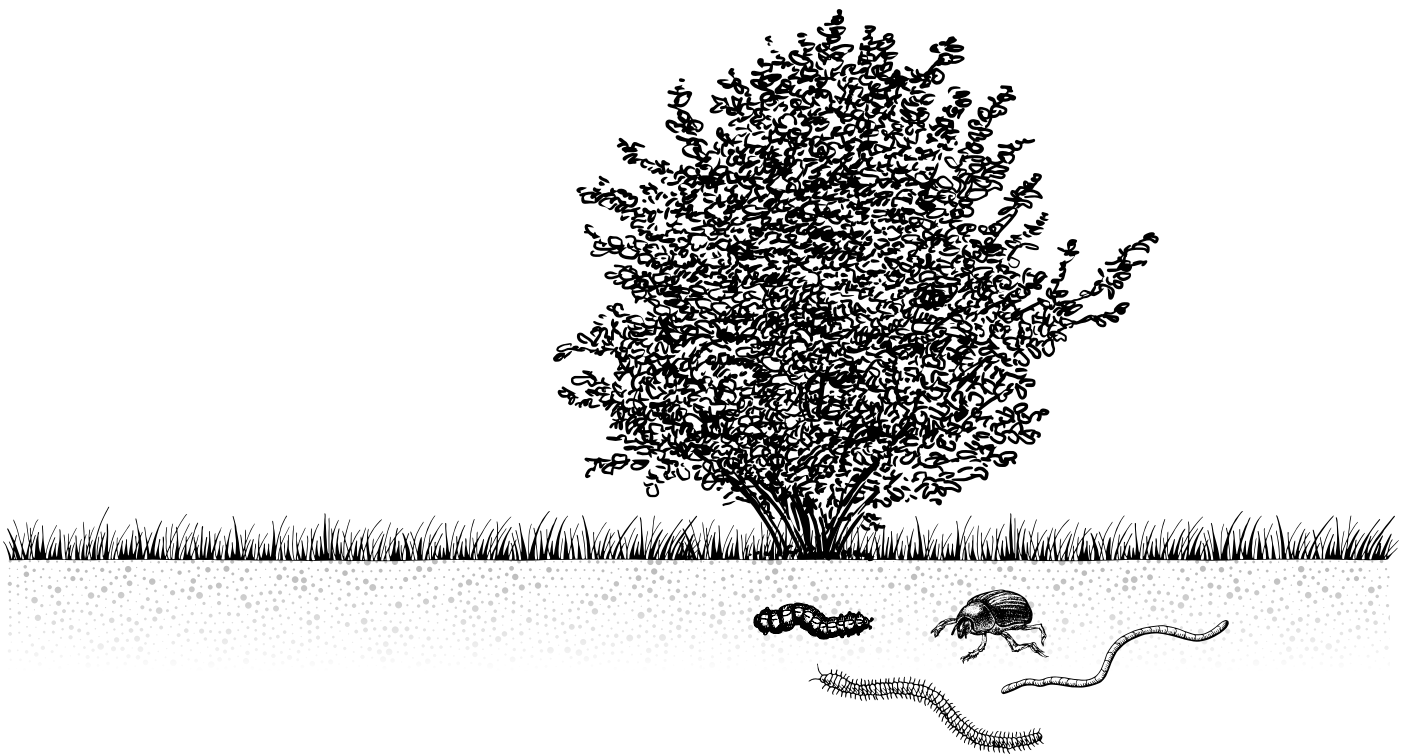


Worksheet 3.2b continued

Worksheet 3.2b

The roles of living things on the sheep and cattle farm

1. Colour over the producers in the picture in **GREEN**.
2. Draw a picture of a sheep, a cow and a goat feeding on the producers/plants and colour them **ORANGE**.
3. Circle the decomposers lying in the soil.



Complete the following sentences.

Producers are eaten by

Consumers can be

or

Decomposers break down **o**

m

and return nutrients to the soil. They break down dead leaves, wood and the remains of animals.



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Worksheet 3.3a

Depending on each other on the farm

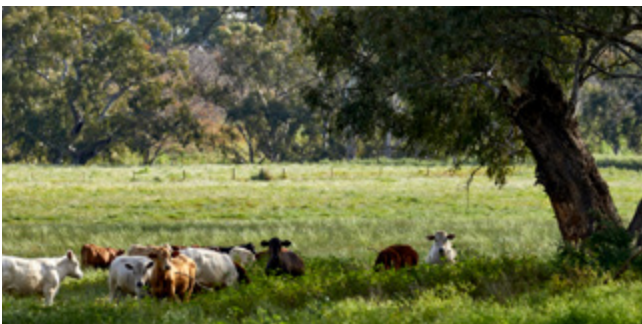
Draw a line to match the pictures to the correct descriptions.



Young mammals (like baby calves) depend on their mothers (and sometimes us) to supply them with milk until they are old enough to survive on only other food.



Herbivores are consumers that rely on producers for food (energy). They also need producers to make the oxygen that they breathe. Plants need the carbon dioxide that consumers breathe out and they also use the nutrients from their dung to grow.



Decomposers (like dung beetles) make sure that the nutrients in ecosystems are balanced. They return nutrients to the soil so that plants can grow.



Farm animals (like sheep and cattle) depend on trees for shelter and protection. They need to keep cool in hot temperatures, so will move to find shade under trees. They also need to be protected from the wind and cold, and will shelter under trees to find warmth.



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3-4 | WORKSHEETS

Worksheet **3.3b**

Selwyn and Pip Job

Biodiversity is the variety of living things in the environment.

What are four living things that Pip mentions, that make up the biodiversity on her farm?



Why does Pip think biodiversity is important?

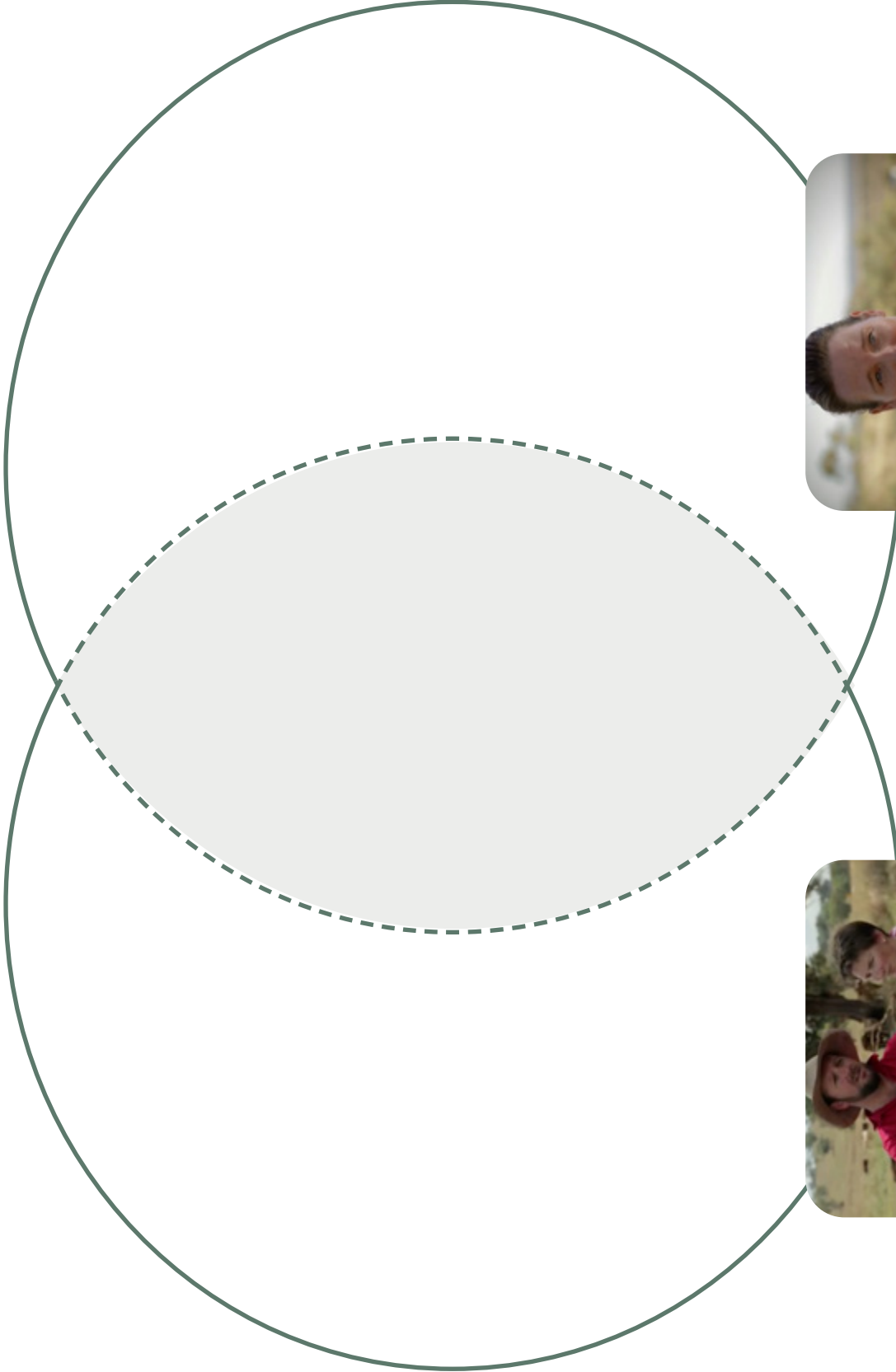


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Worksheet **3.3c**

Similarities and differences between the farms



Jane and Hayden Sale



Selwyn and Pip Job



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Worksheet **3.4a**

Smart farm science scavenger hunt

Race to count the number of living things and objects listed below from the poster.

Foxes

Solar panels

Round hay bales

Farmers

4-wheeler motorbikes

Emu chicks

Tractors

Farm dogs

*Sheep/lambs
(there is one tricky one)*

Kangaroos

Rainbow lorikeets

Water sources

Chooks

Windmills

Horses



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Activity 3.1

Keywords

Worksheet 3.1b – Keywords scramble.

Unscramble the keywords below and recall their meanings.

ersnmcou

consumer

An organism gets its food by feeding on another organism (plant or animal).

ercordup

producer

Any kind of green plant.

ermcdeopso

decomposer

An organism that breaks down organic material.

erbrehuio

herbivore

An animal that feeds on plants.



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3.1b Answers continued

Activity 3.1

epdend

depend

To rely on.

erelhst

shelter

A place that gives protection.

eeialcbnf

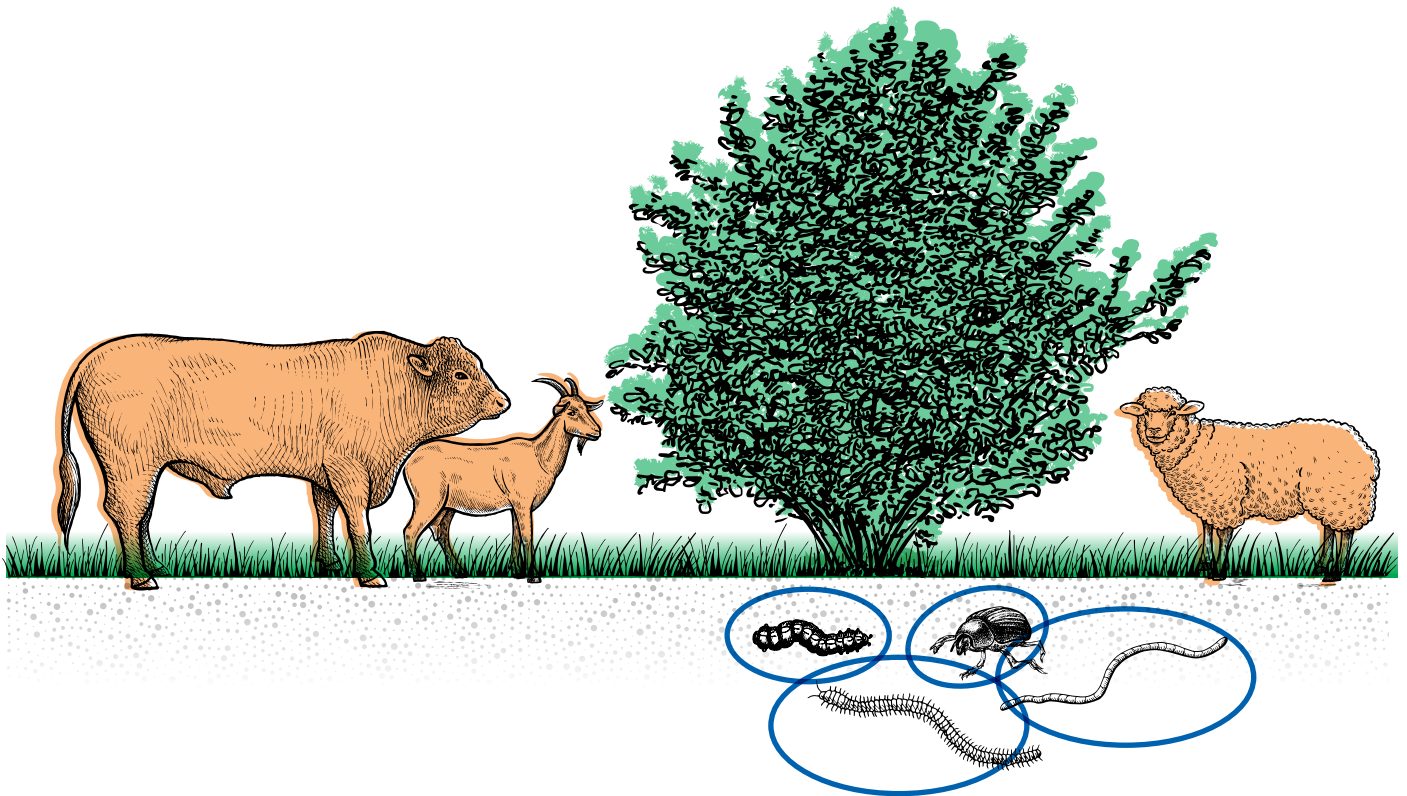
beneficial

Something that is good.

Activity 3.2

Producers, consumers and decomposers

Worksheet 3.2b – The roles of living things on the sheep and cattle farm.



Complete the following sentences.

Producers are eaten by

Consumers can be or

Decomposers break down
and return nutrients to the soil. They break down dead leaves, wood and the remains of animals.



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Activity 3.3

How living things depend on each other

Worksheet 3.3a – Depending on each other on the sheep and cattle farm



Young mammals (like baby calves) depend on their mothers (and sometimes us) to supply them with milk until they are old enough to survive on only other food.



Herbivores are consumers that rely on producers for food (energy). They also need producers to make the oxygen that they breathe. Plants need the carbon dioxide that consumers breathe out and they also use the nutrients from their dung to grow.



Decomposers (like dung beetles) make sure that the nutrients in ecosystems are balanced. They return nutrients to the soil so that plants can grow.



Farm animals (like sheep and cattle) depend on trees for shelter and protection. They need to keep cool in hot temperatures, so will move to find shade under trees. They also need to be protected from the wind and cold, and will shelter under trees to find warmth.

3.3 Answers continued next page



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3.3 Answers continued

Activity 3.3

Worksheet 3.3b – Selwyn and Pip Job

What are four living things that Pip mentions, that make up the biodiversity on her farm?

Plants

Animals

Birds

Microscopic organisms



Why does Pip think biodiversity is important?

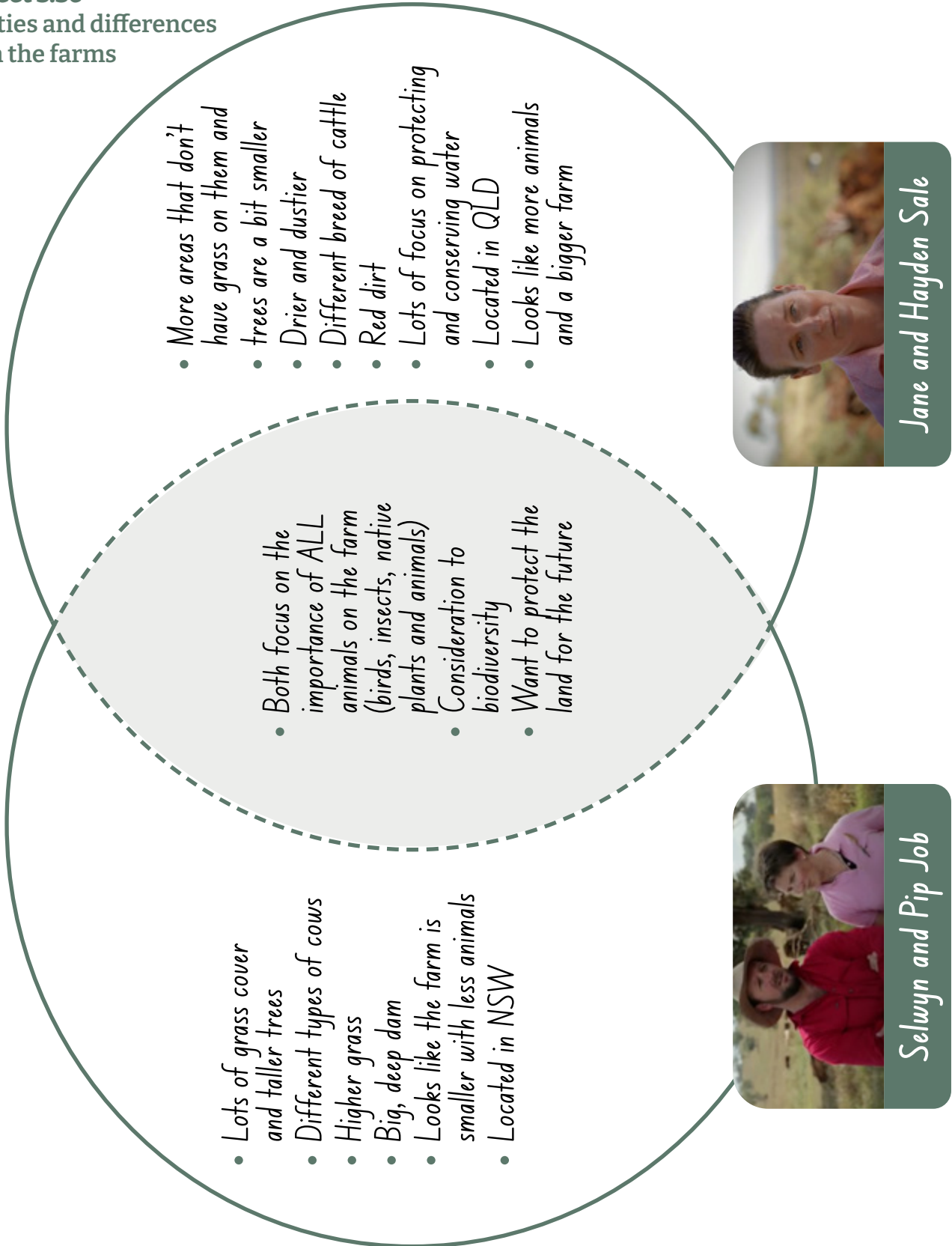
To protect the farm from environmental challenges, like droughts, floods and locust plagues.

Because everything depends on each other to survive.

3.3 Answers continued

Worksheet 3.3c – Similarities and differences between the farms

Activity 3.3





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Activity 3.4

Just for fun

Worksheet 3.4a – Smart farm science scavenger hunt

Foxes

1

Solar panels

4

Round hay bales

5

Farmers

5

4-wheeler motorbikes

1

Emu chicks

2

Tractors

1

Farm dogs

4

Sheep/lambs
(there is one tricky one)

11

Kangaroos

3

Rainbow lorikeets

3

Water sources

3

Chooks

7

Windmills

1

Horses

1