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Growing and changing on the farm

AUSTRALIAN CURRICULUM CONTENT

Observe external features of plants and animals and describe ways they can be grouped based on these features. (ACSSU017, AC9SFU01)

Share questions, predictions, observations and ideas with others. (AC SIS012, AC9SFI05)

Identify and compare attributes of objects and events, including length, capacity, mass and duration, using direct comparisons and communicating reasoning. (ACMMG006, AC9MFM01)

Compare directly and indirectly and order objects and events using attributes of length, mass, capacity and duration, communicating reasoning. (ACMMG019, AC9M1M01)

Measure and compare objects based on length, capacity and mass using appropriate uniform informal units and smaller units for accuracy when necessary. (ACMMG037, AC9M2M01)

Describe the position and location of themselves and objects in relation to other people and objects within a familiar space. (ACMMG010, AC9MFSP02)

Make and record observations, including informal measurements, using digital tools as appropriate. (AC SIS026, AC SIS039, AC9S1I03, AC9S2I03)

Measure the length of shapes and objects using informal units, recognising that units need to be uniform and used end-to-end. (ACMMG019, AC9M1M02)





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Lesson 3

LESSON OBJECTIVE

Students will learn about how farm animals can grow and change over time, focusing on naming, modelling and measuring these changes through hands-on activities.

LESSON OVERVIEW

This lesson guide contains activities that follow a developmental sequence of learning. The activities are suitable for differentiation between Foundation to Year 2, or between ability levels within a year level.

Activity 3.1	Keywords	10–20 mins
Activity 3.2	Living things on the farm grow and change	30–40 mins
Activity 3.3	Counting the age of a sheep	30–50 mins
Activity 3.4	Measuring me (formally and informally)	20–30 mins

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Lesson 3

Resources and equipment

ACTIVITY 3.1 – Keywords

1. Worksheet 3.1a – *Animals grow and change tracing.*
2. Worksheet 3.1b – *Animals grow and change template.*
3. Worksheet 3.1c – *Keywords.*
4. Worksheet 3.1d – *Keywords scramble.*
5. Timer.
6. Worksheet 3.1e – *Keywords spelling list.*

ACTIVITY 3.2 – Living things on the farm grow and change

1. Stimulus 3.2a – *How does my name change as I grow?*
2. Worksheet 3.2a – *Cattle, sheep and goat names.*
3. Scissors.

ACTIVITY 3.3 – Counting the age of a sheep

1. Sets of pegs per pair of students: 8 small pegs and 8 large pegs (or different colours).
2. Cardboard pieces/strips, scissors, gluesticks.
3. Worksheet 3.3a – *Student teeth template.*
4. Stimulus 3.3a – *0–1 year old.*
5. Stimulus 3.3b – *1 year old.*
6. Stimulus 3.3c – *2 years old.*
7. Stimulus 3.3d – *3 years old.*
8. Stimulus 3.3e – *4 years old.*
9. [Ageing cattle by their teeth](#) (2.00–3.40).

Resources and equipment continued next page



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Lesson 3

Resources and equipment continued

ACTIVITY 3.4 – Measuring me (formally and informally)

1. Worksheet 3.4a – *Watch me grow*.
2. Metre rulers.
3. Toilet paper and/or string.
4. Multiple sets of: plastic/paper cups, pop sticks and pencils.
5. Paper.

ADDITIONAL READING/RESOURCES

- [Growing and Changing](#).
- [Features and Fun on the Farm](#).



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Lesson 3

Lesson guide

ACTIVITY 3.1 – Keywords

1. Foundation – Year 1: Distribute Worksheet 3.1a – *Animals grow and change tracing*, and read through the words with students. Students carefully trace the words provided, focusing on the size of their letter formation and spacing. Using Worksheet 3.1b – *Animals grow and change template*, students practise re-writing the sentence.
2. Year 2: Distribute Worksheet 3.1c – *Keywords* and read through the text with students. Allow time for students to individually re-read the words and then allocate students into pairs. Set a five-minute timer and ask pairs to practise recalling the meaning of the keywords with each other. After five minutes, provide pairs with Worksheet 3.1d – *Keywords scramble*. Students work together to unscramble the keywords. (Answers page 27)
Optional: Provide students with Worksheet 3.1e – *Keywords spelling list*.

ACTIVITY 3.2 – Living things on the farm grow and change

1. As a class, brainstorm the following questions and record ideas in a central area, or alternatively, draw pictures of students' ideas:
 - How have you changed from when you were a baby?
 - What things can you do now that you could not do as a baby?
 - How do animals and plants change as they get older?
 - Do plants make food that humans can eat or drink when they are young or old?

- Why is it important for farmers to know the age of animals on their farm? (Answers page 28)

Explain to students that when animals change from young to older animals, they change in size, can produce offspring themselves, and the food and fibre that we need to survive. Animals can be grouped into age categories which helps farmers to manage their animals and work out things like; how much feed and water they need and the amount of medicine they may require.

2. Assist students in organising themselves into groups depending on when their birthdays are in a calendar year. E.g. All students born in January should combine to form a group, February etc. When all students have been grouped, explain that grouping things can make the organisation of tasks easier and more efficient.
3. Display the three images of Stimulus 3.2a – *How does my name change as I grow?* and together, read the names of the cattle, sheep and goats to demonstrate the pattern of grouping and naming livestock from when they are young to when they are an adult.
4. Distribute one copy of the three stimuli to pairs of students and allow time for each pair to cut out the four images of cattle, sheep and goat at different ages.
5. Challenge students to arrange each type of animal from oldest to youngest and accurately recall the names of the animals at each stage. Students may check their answers when they have completed the task.
Optional: Students can complete Worksheet 3.2a – *Cattle, sheep and goat names* by tracing the terms for the farm animals from birth to adult.

Lesson guide continued next page



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Lesson 3

Lesson guide *continued*

ACTIVITY 3.3 – Counting the age of a sheep

When a lamb is born they have no teeth, just like human babies. As they grow, their teeth change. By the time they are two months old, lambs develop eight baby teeth (milk teeth) in their bottom jaw. Just as students lose baby teeth and develop adult teeth, sheep also lose their baby teeth as they get older. Farmers can tell how old a sheep (or cow/goat) is by looking at their teeth. This is important for farmers to know, as it helps them to care for their animals and ensure that they are healthy and productive. Knowing how old their animals are, helps farmers decide what to feed them, what types of medicine to give them, and how much food and medicine they need.

1. Allocate students into pairs and distribute two sets of 8 pegs. The pegs should be two different sizes, or alternatively, they can be two different colours. The small size pegs represent baby teeth and the large pegs represent adult teeth.
2. Distribute Worksheet 3.3a – *Student teeth template*, scissors, glue sticks and a cardboard strip to students. Students cut out the teeth template and stick it onto the cardboard strip. Students cut the template as close to the teeth as possible to make a replica mouth.
3. Students use Stimulus 3.3a – *0–1 year old*, and select eight small pegs (or one colour) and clip them on top of each of the baby teeth on the template/cardboard. This represents the small baby teeth. When the lamb is older than one, they will start to lose their baby teeth and grow their next set of teeth gradually, just as humans do.
4. Project (or distribute) Stimulus 3.3b – *1 year old*, showing that when sheep are this age, they have two large adult teeth at the front of their mouths. Model to students by taking two small pegs off the middle of the cardboard strip and replacing them with two large pegs (leaving the smaller six pegs on either side in place). Students copy this process.
5. Represent the changing of age by singing ‘Happy Birthday’ as a class to mark the sheep’s first birthday and demonstrate development and growth.
6. As sheep turn two years of age, they develop four large teeth (two more) at the front of their mouths. As a class, use Stimulus 3.3c – *2 years old*, and remove one baby tooth beside each adult tooth on the cardboard template and replace with two large pegs (one each side) as shown in the stimulus.
7. Use the ‘Happy Birthday’ song to again mark the next stage of growth as the sheep turns two years of age.
8. Repeat the steps for the sheep turning three, Stimulus 3.3d – *3 years old* and four, Stimulus 3.3e – *4 years old*, until all the teeth are adult teeth and the template/mouth replica has only large pegs attached.
9. View the video clip [Ageing cattle by their teeth](#) from 2.00–3.40 to see how a veterinarian is able to determine the age of the cattle in the clip.

Lesson guide continued next page



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Lesson 3

Lesson guide *continued*

ACTIVITY 3.4 – Measuring me (formally and informally)

1. To conclude the lesson on growth and change, allocate students into groups of four and use Worksheet 3.4a – *Watch me grow* to make a representation of the height of an Angus calf from birth to adult size.
2. Discuss with students how they could measure the height of a calf and an adult bull if they did not have access to a ruler, piece of toilet paper or string. Collate ideas in a central area.
3. Provide groups with a set of items and assign them the challenge of working out how to informally measure the height of a calf and an adult bull using everyday items such as:
 - Cups
 - Pop sticks
 - Pencils
 - Handspans
4. Students should record their responses on a piece of paper and share their answers with their peers.

Extension: For older year levels, ask students to estimate their answers before measuring with each item.



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Lesson 3

Student resources

ACTIVITY 3.1 – Keywords

Worksheet 3.1a	Animals grow and change tracing
Worksheet 3.1b	Animals grow and change template
Worksheet 3.1c	Keywords and definitions
Worksheet 3.1d	Keywords scramble
Worksheet 3.1e	Keywords spelling list

ACTIVITY 3.2 – Living things on the farm grow and change

Stimulus 3.2a	How does my name change as I grow?
Worksheet 3.2a	Cattle, sheep and goat names

ACTIVITY 3.3 – Counting the age of a sheep

Stimulus 3.3a	Counting the age of sheep
Worksheet 3.3a	Student teeth template

ACTIVITY 3.4 – Measuring me (formally and informally)

Worksheet 3.4a	Watch me grow
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Worksheet 3.1a

Animals grow and change tracing

Animals

grow

change.





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F-2 | WORKSHEETS

Worksheet 3.1c

Keywords and definitions

growth

Getting bigger in size.

life cycle

How an organism changes throughout its life.

offspring

The babies of an animal.

teeth

Hard structures used for biting and chewing.

height

The distance from the top to the bottom of something.





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Worksheet 3.1d

Keywords scramble

Unscramble the keywords below:

s p o r f f g n i

c f l y l e e c i

e t h e t

g h e h i t

w g t r o h





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Worksheet 3.1e

Keywords spelling list

Spell the keywords below.

1

2

3

4

5





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Stimulus 3.2a

How does my name change as I grow?



A baby cow is a calf.



A young cow is a yearling or a vealer.



An adult female is a cow.



An adult male is a bull.

Stimulus 3.2a continued next page



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Stimulus 3.2a continued

Stimulus 3.2a



A baby sheep is a lamb.



*A young sheep
is a hogget.*



*An adult female
is a ewe.*



An adult male is a ram.

Stimulus 3.2a continued next page



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Stimulus 3.2a continued

Stimulus 3.2a



A baby goat is a kid.



*A young female goat is
a doeling and a young
male goat is a buckling.*



*An adult female
is a doe.*



*An adult male
is a buck.*

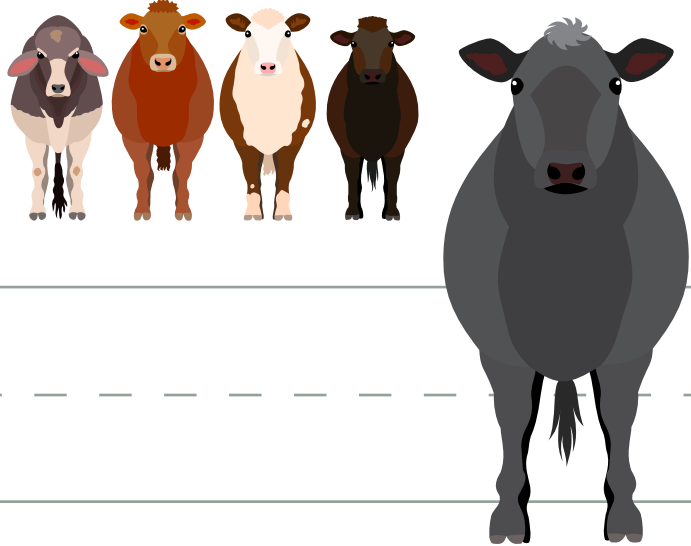


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Worksheet 3.2a

Cattle names



cow

yearling

cow

bull

Worksheet 3.2a continued next page



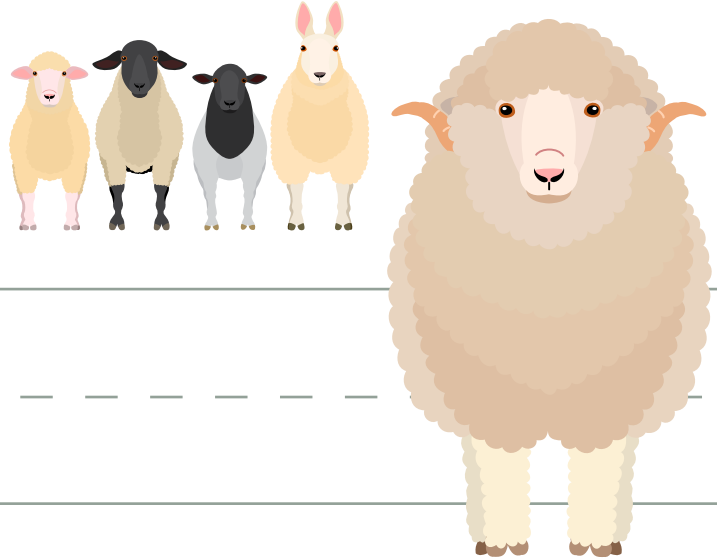
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Worksheet 3.2a continued

Worksheet 3.2a

Sheep names



lamb

hogget

ewe

ram

Worksheet 3.2a continued next page



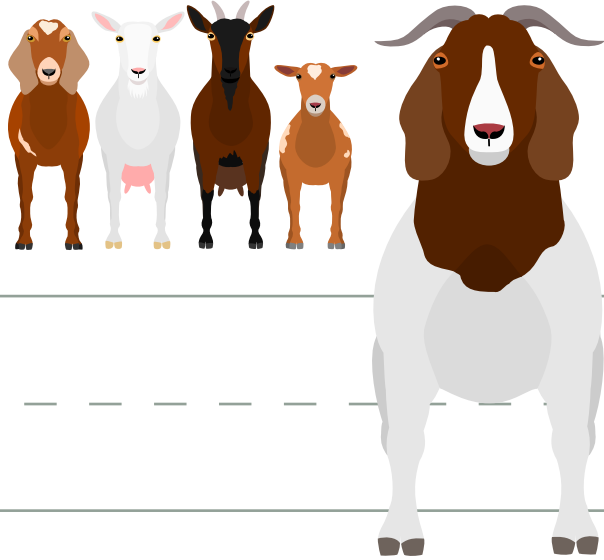
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Worksheet 3.2a continued

Worksheet 3.2a

Goat names



kid

doe

boeking

doe buck



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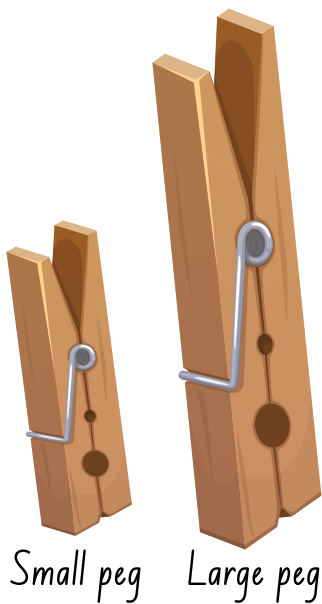
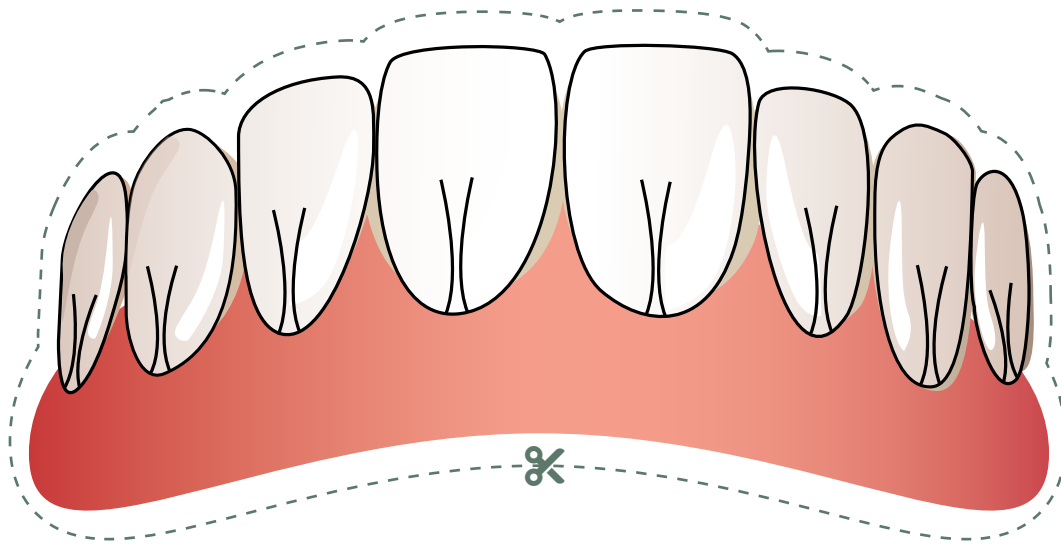
PLEASE NOTE: This activity requires single-sided printing

Worksheet 3.3a

Counting the age of sheep

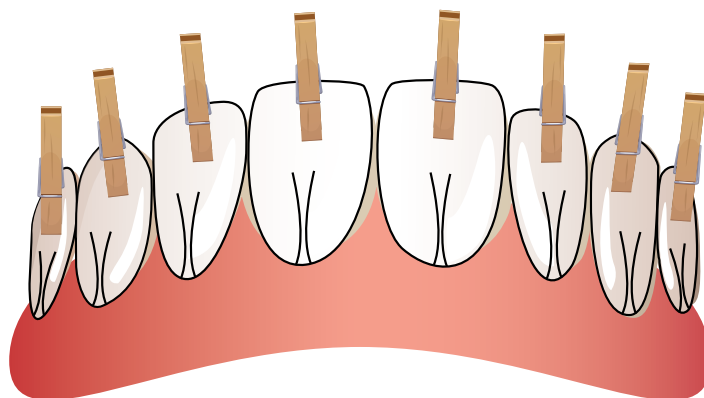
Cut around the teeth template picture as close to the teeth as possible.

Paste the teeth onto a strip of cardboard and cut the cardboard to the same size as the teeth.



Small peg

Large peg



*Clip 8 small pegs on top of the teeth
in a line to start the activity.*

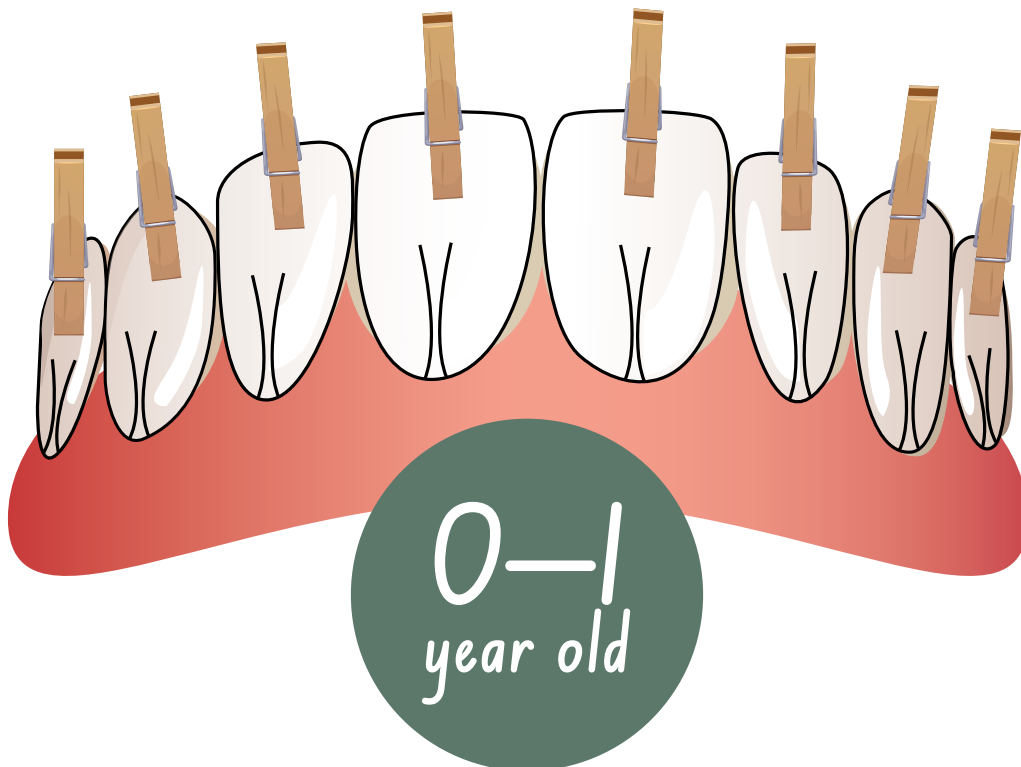


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Stimulus 3.3a

Counting the age of sheep



0 adult teeth

8 baby teeth

Stimulus 3.3a continued next page



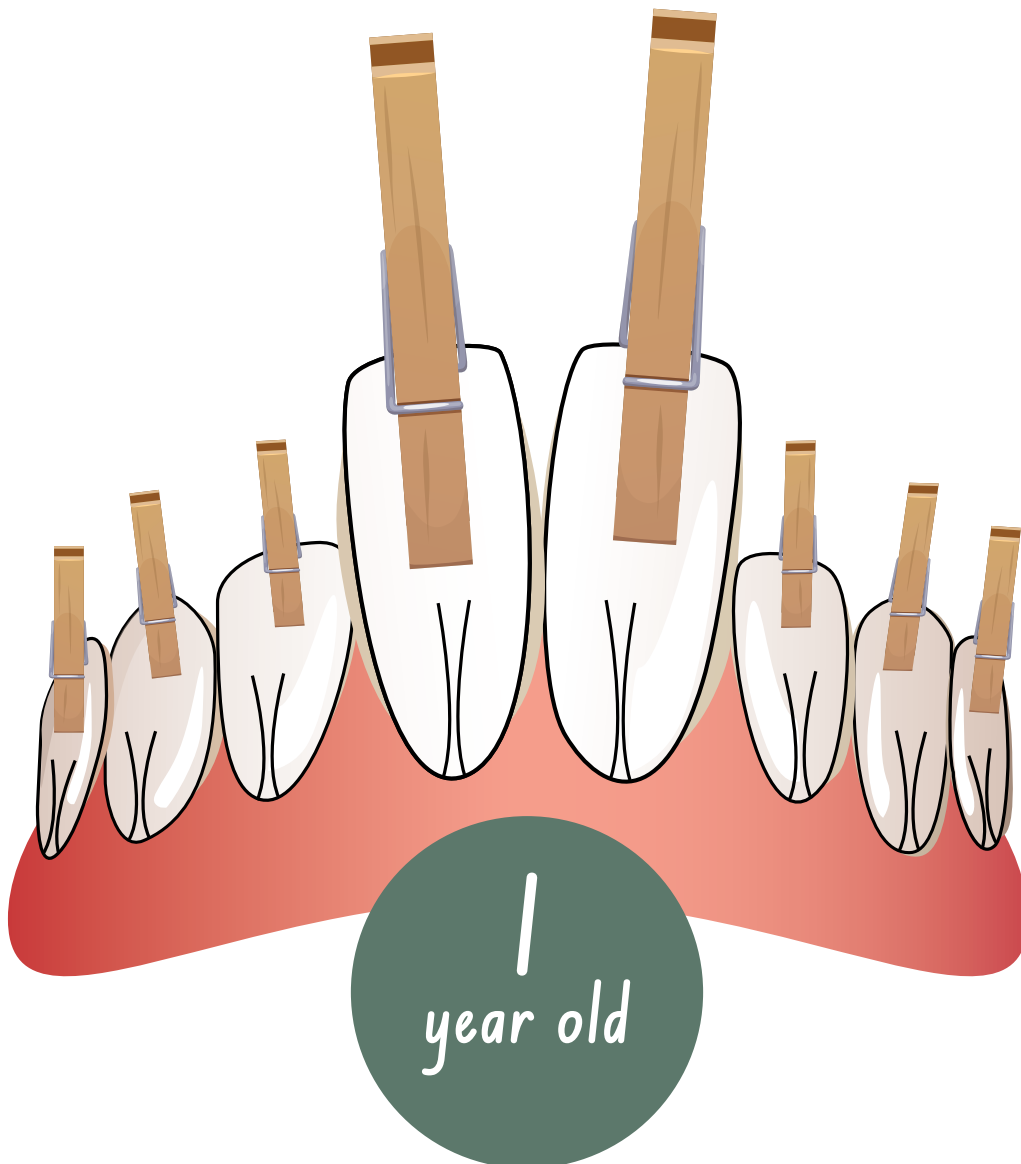
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Stimulus 3.3a continued

Stimulus 3.3a

Counting the age of sheep



2 adult teeth

6 baby teeth

Stimulus 3.3a continued next page



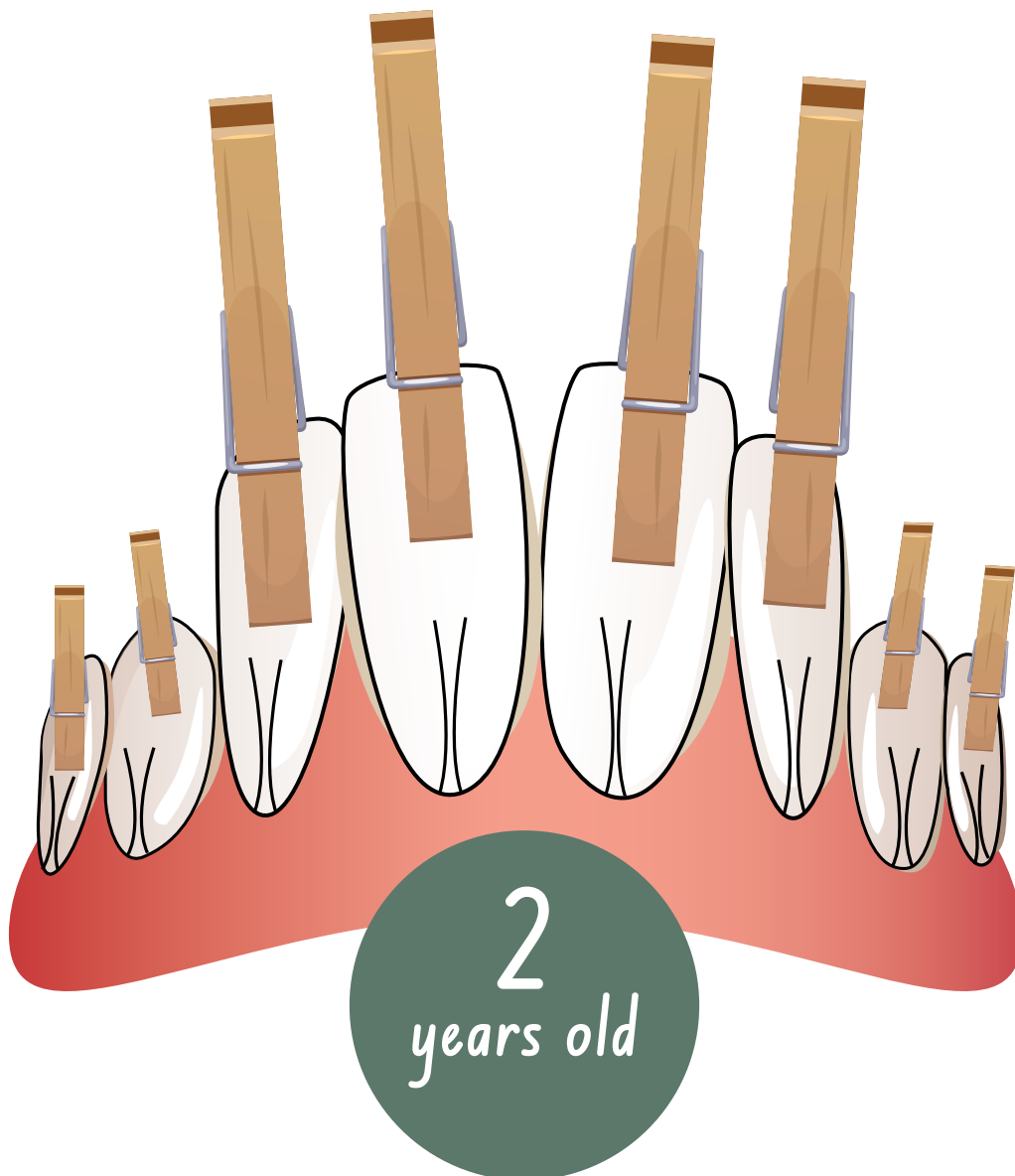
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Stimulus 3.3a continued

Stimulus 3.3a

Counting the age of sheep



4 adult teeth

4 baby teeth

Stimulus 3.3a continued next page



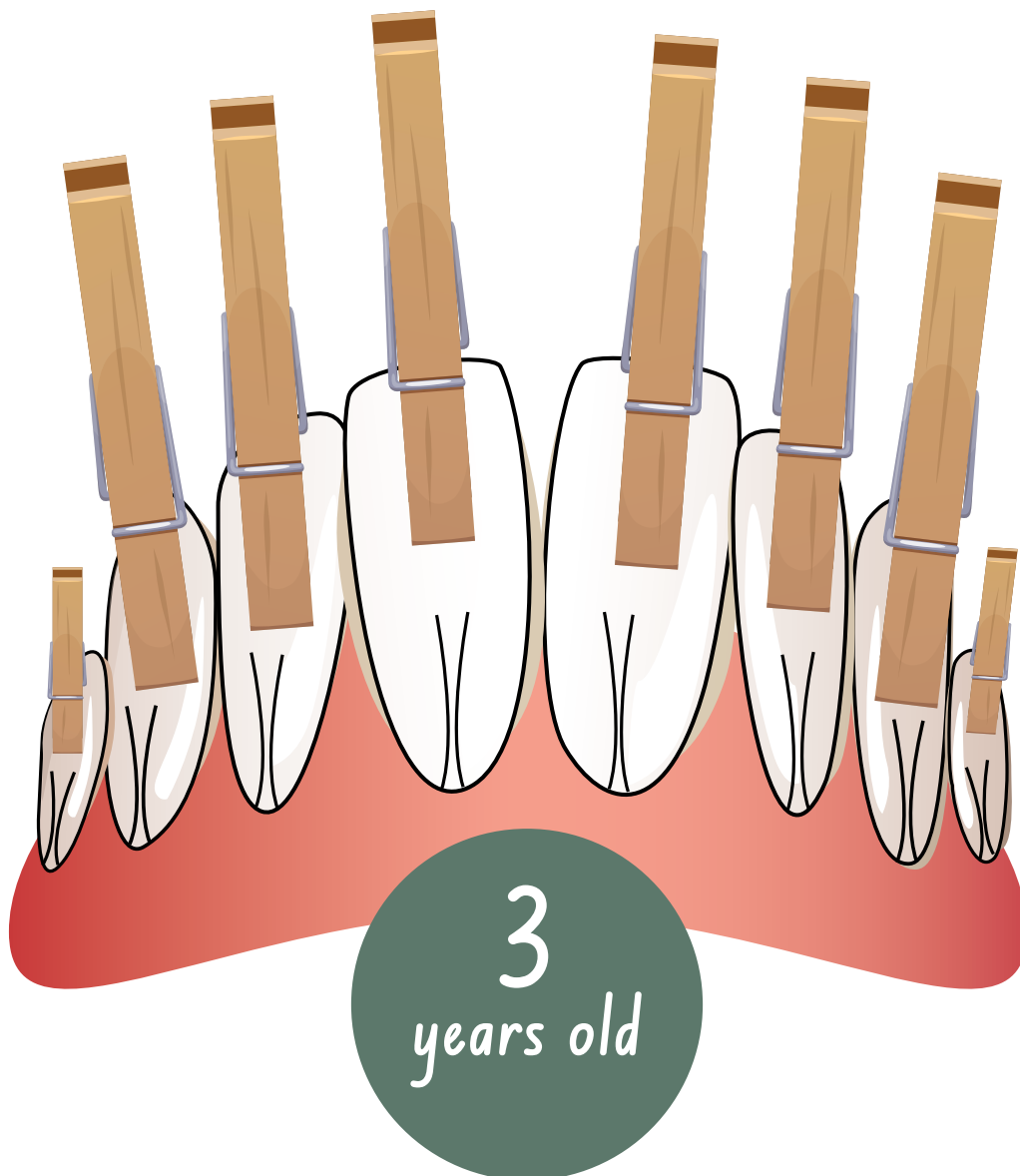
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Stimulus 3.3a continued

Stimulus 3.3a

Counting the age of sheep



6 adult teeth

2 baby teeth

Stimulus 3.3a continued next page



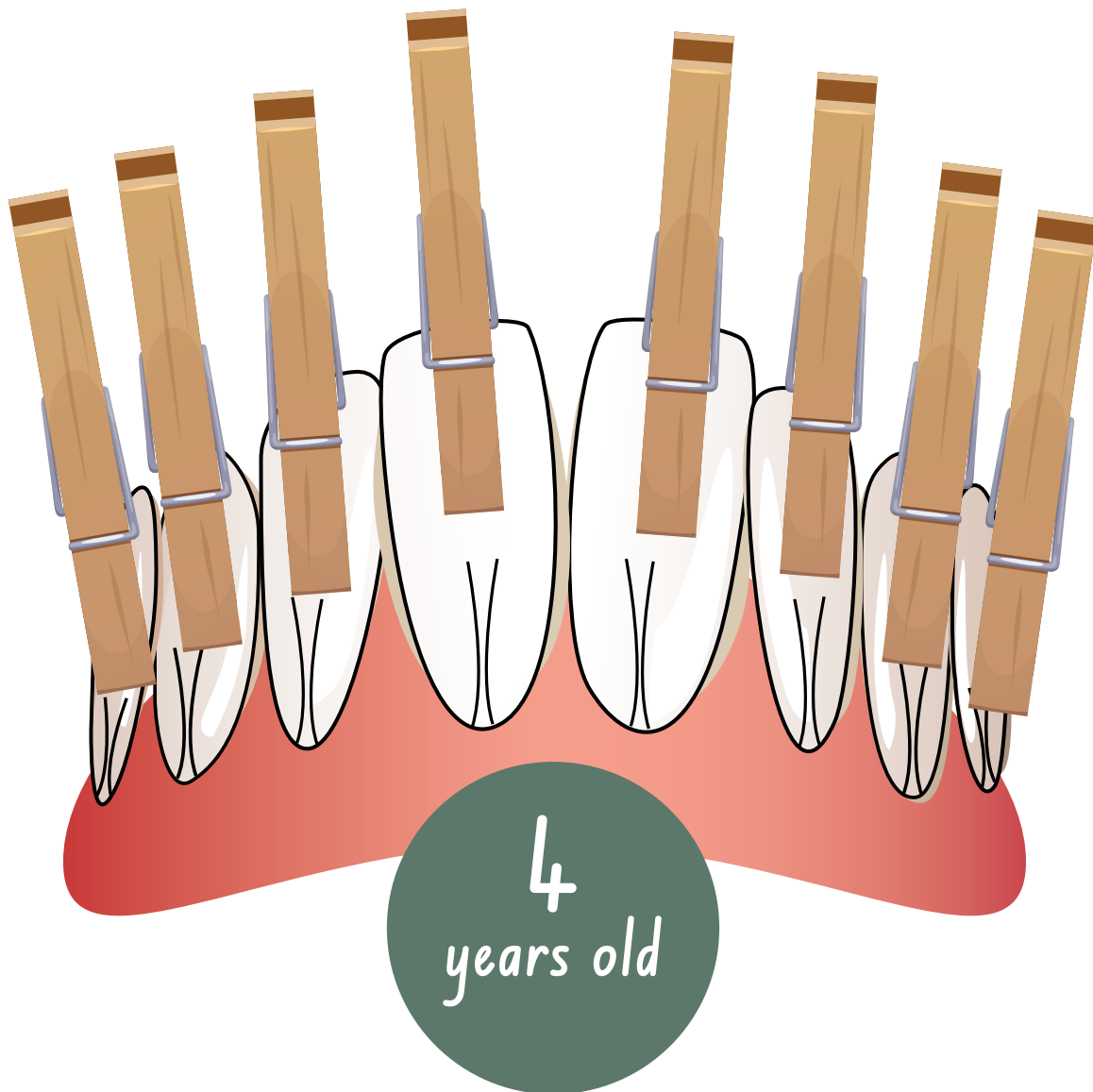
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Stimulus 3.3a continued

Stimulus 3.3a

Counting the age of sheep



8 adult teeth

0 baby teeth



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Worksheet 3.4a

Watch me grow

1. Use a ruler to measure a piece of toilet paper or string as high as the Angus calf.
2. Measure another piece as high as the Angus bull to see how tall the calf grows when it is an adult!



70cm



187cm



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Activity 3.1

Keywords

Worksheet 3.1d – Keywords scramble.

s p o r f f g n i

offspring

c f l y l e e c i

life cycle

e t h e t

teeth

g h e h i t

height

w g t r o h

growth



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Activity 3.2

Living things on the farm grow and change

1.

Ideas for discussion:

- *Students' bodies change in many ways (grow stronger and bigger/larger/taller).*
- *They can now perform actions such as walking, jumping, climbing, feeding themselves, talking, etc.*
- *Animals and plants also grow and change. They get larger, grow deeper roots, can have their own offspring, and as they grow, they may start making milk (dairy cows) of their own, or wool for clothing (sheep).*
- *Plants grow from a seed to the adult phase and make food for us to eat/produce, such as corn, strawberries, apples, etc.*
- *The age of an animal is important for farmers to know, as it helps them to care for their animals and ensure that they are healthy and productive. Knowing how old their animals are helps farmers decide what to feed them, what types of medicine to give them, and how much food and medicine they need.*