

**SADA**  
*Fresh*

— PRESENTS —



# 2023 LIGHT CREAM CURRICULUM



# THE COWS CREATE CAREERS PROJECT IN SOUTH AUSTRALIA IS FUNDED BY:

**SADA**  
*Fresh*

**SA Dairy Industry Fund**

**Major Supply Partner:**



## THE HISTORY:

The Cows Create Careers project was initiated by the Lions Club of Strzelecki and McMillan College (Melbourne University) in 2004 into 9 Gippsland schools.

The committee consisted of a small group of volunteers who desired to share their passion and showcase the dairy industry and its opportunities to students in Gippsland. Many of those volunteers are still involved today.

The initial findings remain the legacy of the Cows Create Careers program 18 years later. The results are that many of our rural students are town kids who live in the country. They have not all had the opportunity to investigate the range of careers in Agriculture and specifically the dairy industry. Cows Create Careers can make this happen.

In 2022, the Cows Create Careers program was delivered Nationally to 23 dairying regions involving over 210 schools.

A special thanks to the volunteer dairy farmers and advocates who have been the reason for the program's success. Without you, Cows Create Careers would not have been able to profile the many students who have chosen to seek dairy industry employment opportunities. Let's keep this legacy rolling.

### CONTACT DETAILS

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**0419 878 055 (Deanne)**

**E [admin@jaydee.net.au](mailto:admin@jaydee.net.au)**



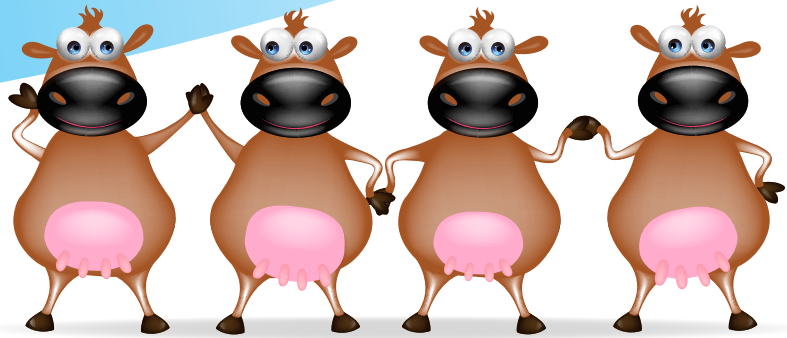
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# OVERVIEW



Over the next few weeks, your school will be significantly involved in the lives of two calves. Caring for and monitoring the calves will be central to learning about the dairy industry and what it entails.

## Competition

Work as part of a team and submit your work to have a chance to win prizes and awards.

## Caring for calves

Work as part of a team to care for the calves, monitor their health, growth and report on their condition.

## Presentation & awards day

Attend an interactive presentation and awards day where you will have the opportunity to share your learning.

## Team discussion

Share your new awareness about rural industries and caring for animals with your team. Discuss your thought processes and understanding with your team.

## Industry advocates and dairy farmers

When these guests engage with you and your school prepare questions and consider the knowledge that they can share with your class.



## Research

Work as part of a team to use the internet to research a topic and career pathway. Present the research and information as part of your assessment tasks.

## Online calves

Work in teams or individually to view our virtual calves called Bright and Future. Capture their growth rates on a graph and report.

## Student worksheets

Take part in a 5-week online learning experience. Capture your knowledge on the student worksheets.

# ASSESSMENT SUMMARY

## WHAT TO SUBMIT

Teachers should select their best team's work to submit for assessment. If a school has both juniors and seniors participating in the project, they can submit the best team's work for each section. If there are multiple classes, please select the best team's work from each class. All student surveys will be conducted using a Survey Monkey link.

## Here's how it works

Immerse yourself in Cows Create Careers by submitting the following tasks. This participation will allow you and your school to be eligible for regional and national prizes.

## Students

Work in groups of 2 students and think of a catchy name for your team.

**Note:** Teachers may wish to implement this learning individually if students are working from home.

The following tasks will be completed for your school-based assessment:

- 1. Activity one to five student worksheets**
  - Activity 1 – An introduction (pages 12-13)
  - Activity 2 – Technology (pages 17-18)
  - Activity 3 – Environment/Natural resources (pages 22-23)
  - Activity 4 – Keeping communities safe (pages 27-29)
  - Activity 5 – Marketing and dairy careers (page 33)
- 2. Take a Creative photo** (page 34)
- 3. Student evaluation** – entry and exit (page 34)
- 4. Final team checklist** (page 35)

## Teachers

Teachers who submit their teacher evaluation forms (entry and exit) will gain an additional 5 points towards the school prize.

The forms can be accessed here:

**Entry** <https://www.surveymonkey.com/r/2023cccteacherentry>

**Exit** <https://www.surveymonkey.com/r/2023cccteacherexit>

## Bonus points

A bonus point will be awarded to any school that submits all their work before the due date for the State/region. This will be added to the school's score for the school prize.

## Submit the assessment task using:

**Dropbox** – Email [deanne@jaydee.net.au](mailto:deanne@jaydee.net.au) to request your Dropbox link, then simply upload your files.

**Google drive links** – Are you using Google as your mail server? Simply attach all your large files to an email and Google will send via Google drive links.

**Mail** – Express post your work on a memory stick to: Cows Create Careers, PO Box 18, LOCH VIC 3945

Refer to the *School Resource Kit* for due dates and timelines for the project.



# URLS FOR COWS CREATE CAREERS

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## Student activity one

<https://www.surveymonkey.com/r/2023cccstudententry>

<https://maxumanimal.com.au/how-to-use/>

<https://vimeo.com/524079796>

## Student activity two

<https://www.surveymonkey.com/r/2023brightfuture>

<https://vimeo.com/524082238>

<https://www.daviesway.com.au/dairy-solutions/boumatic-robotics/mr-d2-boumatic-milking-robot>

## Student activity three

<https://vimeo.com/524084872>

<https://www.stevesweetdirector.com/project/jamie-durie-s-groundswell-dairy-australia-26523/>

## Student activity four

<https://www.surveymonkey.com/r/2023finalbrightfuture>

<https://vimeo.com/524087624>

<https://www.dairyaustralia.com.au/people-skills-and-capability/farm-safety-and-wellbeing#.Yfign2hByUk>

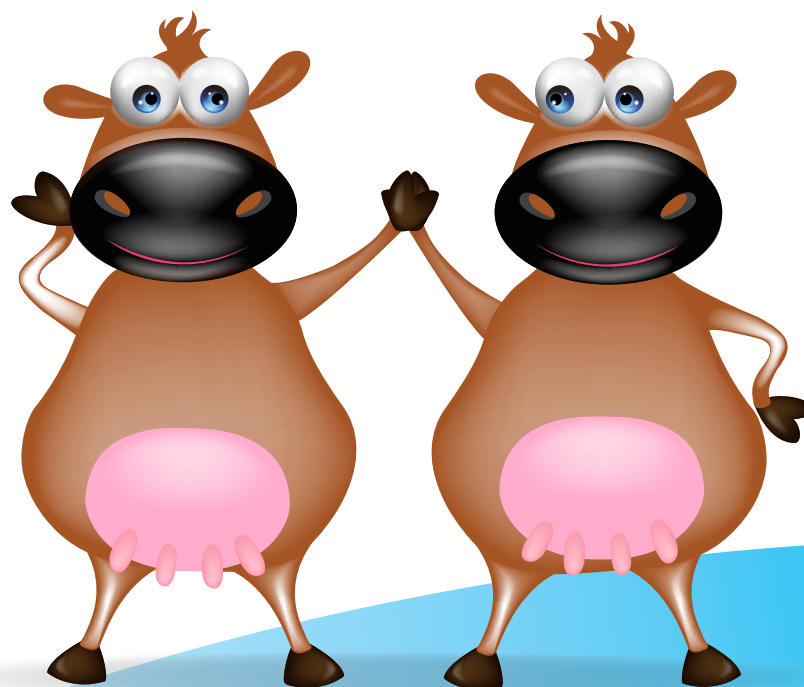
<https://www.facebook.com/watch/?v=570926523489531>

<https://www.youtube.com/watch?v=RUYKujBgbU>

## Student activity five

<https://www.surveymonkey.com/r/2023cccstudentexit>

<https://vimeo.com/524089382>



# PRESENTATION AND AWARDS DAY

An interactive day will conclude the Cows Create Careers project for your school. An overall winning school prize for the junior and senior sections will be announced on this day. All students will receive a certificate of participation in the project.

## REGIONAL SCHOOL AND TEAM PRIZE

\$250 school prize and \$20 iTunes vouchers for each team member (max \$100). These prizes apply to both the junior and senior sections.

## NATIONAL PRIZE

\$3,000 school prize. This prize applies to both the junior and senior sections.

### Regional school and team prize

To be eligible for this prize, the school must submit their best team's assessment work. This work must contain all the assessment tasks outlined in the Assessment Summary.

An independent assessor will assess the work based on an internal rubric. The highest school score for the region will take out the school and team prize. The prize is awarded in junior and senior sections only if two or more schools meet the assessment criteria in that section.

### National prize

Each region's winning school team will then be eligible to submit a final entry for judging towards the National prize of \$3,000. This competition is open to both junior and senior sections. Schools can locate the criteria for this final entry in the *School Resource Kit*.

### The regional prizes sections are listed below:

- Gippsland Victoria
- Northern Victoria & North East Victoria/New South Wales
- South West Victoria
- Launceston, Hobart and North West Tasmania
- Fleurieu Peninsula South Australia
- Mount Gambier & Limestone Coast South Australia
- Barossa & Mid North South Australia
- Murray Bridge & Adelaide Hills South Australia
- Busselton Western Australia
- Toowoomba Queensland
- Lismore New South Wales
- Mid Coast New South Wales
- Central New South Wales
- South & Far Coast New South Wales

If you get your work in before the due date your school can gain an additional point towards the final score.

Teachers who submit their teacher evaluation forms will gain an additional 5 points towards the final school score.

# INDUSTRY ADVOCATE VISIT

**Your school has its own industry advocate who will visit to give students a presentation about their role in the dairy industry. How about you prepare some questions that will assist with your research projects as a class?**

## Some key ideas/questions

Students may wish to investigate in more depth aspects of the industry advocate's work, such as:

- What pathway did you take to achieve your current position?
- What do you see as the real positives about working in the industry?
- What is the nature of study undertaken to qualify you to do this work?
- What 'duties' do you perform in this position?
- What do you think you will be doing in five years time? What about in ten years time?
- What special talents and interests are needed to succeed in your work?
- Tell us about the latest technology that is being used in relation to your career pathway?

## Brainstorming careers

During the Cows Create Careers journey students will be collecting information and asking questions about work and work futures in the dairy industry.

To help students make a start, here are a number of career areas listed below:

- feed systems
- artificial breeding
- shed design
- agronomy
- nutrition/stockfeed
- milking systems
- research and development
- farm management
- environmental management systems
- dairy farmer
- manufacturing
- finance
- technology and engineering
- robotics
- marketing
- dietician
- animal welfare
- herd improvement
- pasture improvement
- agricultural consultant

Note: Industry advocate visits can be in person or via zoom or other online alternatives.





# ARRIVAL OF THE CALVES IN SCHOOL



The calves are going to be arriving at your school soon. Work together as a class to ensure that you are well prepared for the calves arrival at your school.

## Key ideas

### Research and identify environmental conditions

Identify conditions conducive to calf safety and growth and ensure that your facilities meet these requirements before the calves arrival.

### Prepare a calf rearing plan

Develop a plan to ensure the health and welfare of the calves whilst they are in your care.

### Develop a roster to feed the calves

What is the most effective way for teams to share the care and monitoring of the calves during their stay at school? How can we ensure each team shares responsibilities (including weekends)?

### Create a checklist of questions to ask the dairy farmer

The first question will be to ask the dairy farmer about the feeding regime for the calves. Write these details on the poster included in your *School Resource Kit*. Display the calf health poster in a central position so everyone can see it.

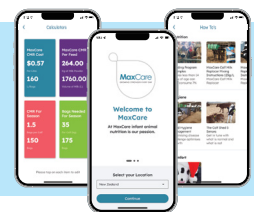
### Research and understand the importance of looking after your own personal hygiene

Personal hygiene is critical when looking after animals. Make sure that your team and class understands why. Display the hygiene poster as a reminder to students.

### Prepare daily and weekly checklists for monitoring the calves

Have a look over the samples that have been included in the *School Resource Kit*.

Use the MaxCare app on page 36 for some great tips about feeding and rearing calves.



### Does the class understand the general principles of calf management?

Do you know what needs to be done, when and why? Perhaps refer to the Dairy Australia Calf rearing handbook for helpful tips. A copy of this handbook can be found on your CCC memory stick as a PDF. Alternatively, your teacher may have a copy in the library.

### Monitor the calves' weight gain

Make sure you monitor and record the calves' feeding regime and weight gain whilst they are in your care. Include this in your scientific report or letter/email to Jaydee Events Pty Ltd.

### Veterinary assistance

Please get in touch with the dairy farmer or project manager listed on your information sheet if your school has a concern about the health and welfare of the calves. If a vet is required, then approval of veterinary expenses must be authorised.

### Animal biosecurity

Make sure that you are aware of the biosecurity requirements in your State. If you need some assistance, contact your project manager.

**Note: our virtual calves Bright and Future can be used for this component of the project**

If a vet is required, approval of vet expenses must be authorised by calling 0412 368 739 (John) or 0419 878 055 (Deanne).

# TASKS FOR SUBMISSION

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## 1 Student worksheets

### Activity 1

An introduction (pages 12-13)

### Activity 2

Technology (pages 17-18)

### Activity 3

Environment/Natural resources (pages 22-23)

### Activity 4

Keeping communities safe (pages 27-29)

### Activity 5

Marketing and dairy careers (page 33)

## 2 Creative photo task

Submit a creative photo of your team with the calves. Don't forget to include the bag of milk powder that has been sponsored for your school.

Further details about this task can be found on page 34.

## 3 Student evaluation – entry and exit

Submit your student evaluation data using these links:

**Entry** [surveyMonkey.com/r/2023cccstudententry](https://surveyMonkey.com/r/2023cccstudententry)

**Exit** [surveyMonkey.com/r/2023cccstudentexit](https://surveyMonkey.com/r/2023cccstudentexit)

Further details about the surveys can be found on page 34.

## 4 Final team checklist

Please ensure that your team completes this form to accompany your assessment work. Print your names clearly for certificates.

Further details about this task can be found on page 35.

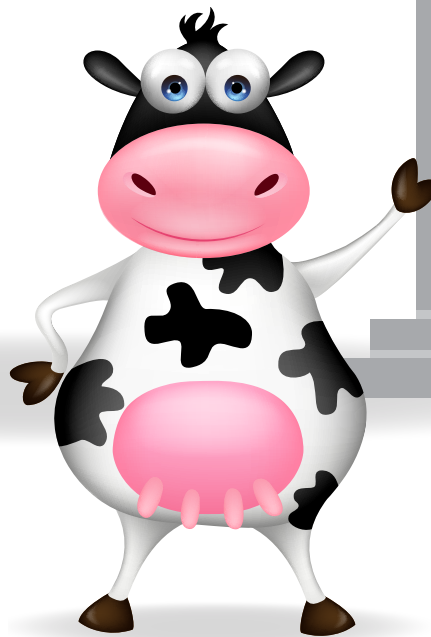


## ACTIVITY ONE - AN INTRODUCTION

# STUDENT INSTRUCTIONS

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- 1. SURVEY** [www.surveymonkey.com/r/2023cccstudententry](http://www.surveymonkey.com/r/2023cccstudententry)
- 2. READ** Learning activity one - overview sheet
- 3. WATCH** Video(s) - [MaxCare Video](#) & [Farmer Bill's Video One](#)
- 4. READ** Learning activity one - information sheet
- 5. COMPLETE** Learning activity one - student worksheet
- 6. SUBMIT** Learning activity one - student worksheet to your teacher



# ACTIVITY ONE - AN INTRODUCTION

## OVERVIEW

### Purpose:

1. Introduce **Bright & Future** the calves to students and talk about their age, environment and what they need to stay happy and healthy and continue to grow. VISUAL LEARNING/VIDEO
2. Introduce Bill Loughridge to the students, providing background and information about his farm. VISUAL LEARNING/ VIDEO
3. Introduce MaxCare and their video on how to mix the milk powder to feed the calves. VISUAL LEARNING/VIDEO
4. Engage the students to learn about the Australian dairy industry. READING/ COMPREHENSION
5. Test the knowledge of the students with an engaging learning activity/competition. REVISION

### Week one:

- This is your first weekly activity for Cows Create Careers. Schools can choose which week they wish to start during Term 2 or 3, 2023
- Students will need to allocate 60-90 minutes which includes reading, comprehension, revision and some physical activity.

### Activities:

#### The students will:

- Complete a student quiz to test their learning
- Write 100 words on what they have learnt about rearing healthy calves? [Primary Students: 50 words or 8 dot points]
- Get some exercise and list how many different dairy products that they can find in their fridge/pantry
- Research 5 benefits of having dairy in their diet
- Get ready to plot/graph the weight and weight gain of **Bright & Future**

A template has been provided in both Microsoft Word and as an interactive PDF for students to complete this activity.

### What is provided?

- Two short videos for students to watch and learn
- A document for students to read information about the Australian Dairy Industry
- A student worksheet in Word and/PDF for students to complete the activity
- An answer sheet for the teachers

### Competition

- Each teacher will forward their best two submissions from Week One by the end of Term 2 or 3, 2023 (or earlier if they wish) to [admin@jaydee.net.au](mailto:admin@jaydee.net.au)

### Support

The Cows Create Careers team are here every day and ready to respond to any questions immediately by either emailing [admin@jaydee.net.au](mailto:admin@jaydee.net.au) or phoning John 0412 368 739 or Deanne 0419 878 055.

### CURRICULUM AREAS

#### English/Literacy:

Years 5 to 10: ACELY1707, 1704, 1717, 1714, 1728, 1725, 1738, 1736, 1748, 1746, 1776, 1756

Year 11: English Unit 1: Create a range of texts, Reflect on their own and others' text

#### Mathematics:

Years 5 to 10: ACMSP119, 120, 147, 148, 169, 170, 284, 228, 253

Year 11: General Mathematics Unit 2: The statistical investigation process

#### Health & Physical Education:

Years 5 to 10: ACPPS054, 073, 095, 096

## ACTIVITY ONE - INFORMATION

# ABOUT THE AUSTRALIAN DAIRY INDUSTRY

## An introduction

### About the Australian Dairy industry



DAIRY IS AUSTRALIA'S THIRD LARGEST RURAL INDUSTRY

**3<sup>rd</sup>**

AVERAGE ANNUAL MILK PRODUCTION PER COW

**6,203**  
litres

TOTAL ANNUAL MILK PRODUCTION

**8,554**  
million litres

VALUE OF FARMGATE PRODUCTION

**\$4.9**  
billion

ANNUAL PRODUCTION OF MAIN COMMODITIES

<b>408,246 tonnes</b> Cheese	<b>192,623 tonnes</b> Milk powders	<b>73,019 tonnes</b> Butter/AMF (CBE)
---------------------------------	---------------------------------------	--

NUMBER OF DAIRY FARMS

**4,420**

AVERAGE HERD SIZE

**303**  
cows

AUSTRALIAN DAIRY HERD

**1.34**  
million cows

DAIRY INDUSTRY WORKFORCE

**34,700**

ANNUAL PER CAPITA CONSUMPTION

**15** **93**  
kg cheese litres of milk

AUSTRALIAN MILK UTILISATION

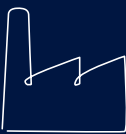
<b>40%</b> Cheese	<b>3%</b> Whole milk powder
<b>30%</b> Drinking milk	<b>8%</b> Other
<b>19%</b> Skim milk powder or butter	

MILK PRODUCTION EXPORTED

**36%**

MAJOR EXPORT MARKETS

<b>303,397 tonnes</b> Greater China	<b>80,869 tonnes</b> Singapore	<b>59,147 tonnes</b> Indonesia
<b>69,963 tonnes</b> Japan	<b>63,600 tonnes</b> Malaysia	



## ACTIVITY ONE - AN INTRODUCTION

# STUDENT WORKSHEET

School Name \_\_\_\_\_

Student Name \_\_\_\_\_

Year Level \_\_\_\_\_

### Quiz questions

#### Listen to [Farmer Bill's Video One](#)

1. How long has Farmer Bill been farming for?  
\_\_\_\_\_
2. How many employees does Farmer Bill have on his farm?  
\_\_\_\_\_
3. How many cows does Farmer Bill milk?  
\_\_\_\_\_
4. What are the names of the two Cows Create Careers calves?  
\_\_\_\_\_
5. How much colostrum milk do calves receive in the first 12 hours after being born?  
\_\_\_\_\_
6. How long are the calves kept in the shed / pen environment?  
\_\_\_\_\_
7. What are the two main food types that the calves receive in the pen?  
\_\_\_\_\_
8. What is the calves bedding made from?  
\_\_\_\_\_
9. At the age of 15 months the calves are joined, what age do they come into the herd as milkers?  
\_\_\_\_\_

10. What are the three main food sources of Farmer Bill's milkers?  
\_\_\_\_\_

11. If Bill has 700 cows on 283 hectares, then how many cows does Bill have per hectare?  
\_\_\_\_\_

12. If Bill has 48 newborn calves how much colostrum milk will he need in the first 12 hours?  
\_\_\_\_\_

#### Listen to the [MaxCare Video](#)

1. What tools would a person need to mix MaxCare milk powder?  
\_\_\_\_\_
2. Which of the range of MaxCare milk powders are they mixing in the video?  
\_\_\_\_\_
3. How many kilograms of MaxCare milk powder would a person need to make 8 litres of milk for the calves?  
\_\_\_\_\_
4. The calves at 3 weeks old will need 3-3.5 litres of MaxCare milk powder twice a day. If you are feeding 8 calves for 30 days how many litres of MaxCare milk powder will the calves consume?  
\_\_\_\_\_
5. Identify the type of information that MaxCare has on the back of their milk powder bag?  
\_\_\_\_\_
6. If a supplier orders 5 bags of MaxCare milk powder, each bag is 20kg. How many litres of milk can the farmer make?  
\_\_\_\_\_



## ACTIVITY TWO - AN INTRODUCTION **TECHNOLOGY**

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### **1. RENAME THE CALVES COMPETITION**

[www.surveymonkey.com/r/2023brightfuture](http://www.surveymonkey.com/r/2023brightfuture)

**2. READ** Learning activity two - overview sheet

**3. WATCH** Video(s) - [Farmer Bill's Video 2](#) & [Daviesway Video](#)

**4. READ** Learning activity two - information sheet

**4. COMPLETE** Learning activity two - student worksheet

**6. SUBMIT** Learning activity two - student worksheet to your teacher





# ACTIVITY TWO - TECHNOLOGY

## OVERVIEW

### Purpose:

1. Update about **Bright & Future** how they have progressed, how much they have grown and whether their diet has changed since the last update. VISUAL LEARNING/VIDEO
2. Introduce the technology on Bill Loughridge's farm to the students, provide information about the rotary dairy and the technology that is used inside his shed. VISUAL LEARNING/ VIDEO
3. Introduce Daviesway and their video on robotic milking technology. VISUAL LEARNING/VIDEO
4. Engage the students to learn about the types of milking sheds in Australia. READING/ COMPREHENSION
5. Test the knowledge of the students with an engaging learning activity/competition. REVISION

### Week two:

- This is your second weekly activity for Cows Create Careers. Schools can choose which week they wish to start during Term 2 or 3, 2023
- Students will need to allocate 60-90 minutes which includes reading, comprehension, revision and some physical activity.

### Activities:

#### The students will:

- Complete a student word-find to test their learning
- Write 100 words on what the different types of milking sheds are in Australia and which one they would choose and why they would make this choice?
- Get some exercise and find whatever they can use in their home environment to build a dairy of their choice? Take a photo of the design.

- Critique the design in their own words and suggest new ideas to improve the functionality of the design

A template will be provided in both Microsoft Word and as an interactive PDF for students to complete this activity.

### What is provided?

- Two short videos for students to watch and learn
- A document for students to read information about the types of milking sheds in Australia
- A template in Word and/PDF for student to complete the activity
- An answer sheet for the teachers

### Competition

- Each teacher will forward their best two submissions from Week Two by the end of Term 2 or 3, 2023 (or earlier if they wish) to [admin@jaydee.net.au](mailto:admin@jaydee.net.au)

### Support

The Cows Create Careers team are here every day and ready to respond to any questions immediately by either emailing [admin@jaydee.net.au](mailto:admin@jaydee.net.au) or phoning John 0412 368 739 or Deanne 0419 878 055.

## CURRICULUM AREAS

### English/Literacy:

Years 5 to 10: ACELY1707, 1704, 1717, 1714, 1728, 1725, 1738, 1736, 1748, 1746, 1776, 1756

Year 11: English Unit 1: Create a range of texts, Reflect on their own and others' text

### Technologies

Years 5 to 10: ACTDEP035/048

### Media Arts

Years 5 to 10: ACAVAM116, 120, 128  
ACAMAM068, 69

### Science

Year 11: Earth & Environmental Science Unit 1 & 2 – ACSES010

## ACTIVITY TWO - TECHNOLOGY

# INFORMATION

**Each dairy farm has a milking shed where the cows are milked by machines. The milk is held in a vat before it is collected Each day and taken to the factory by a milk tanker.**

### Herringbone

One of the most common milk sheds, the herringbone shed, has a central sunken pit and a raised platform on each side where the cows stand whilst being milked. The cows are angled anywhere from 45 to 90 degrees to the pit, where the milking staff work. The milking machines are located within or above the pit and the operators apply one set of 4 cups to the cow's udder from either behind or in front of her hind legs. After milking, the front gate is opened and the cows walk out. Herringbone sheds can vary from six cows per side to up to thirty cows per side.



### Robotic dairy

There are a small number of robotic dairies (also called Automatic Milking Systems) in Australia, where a robot milks the cows without human involvement. The cows walk to the dairy at their own desire and enter the milking booth where they are rewarded with feed. The robot washes the udder and sensor-guided cups are applied to milk the cow. The robot sprays disinfectant onto the teats after milking and the gate opens to allow the cow to leave.

### Rotary

A rotary shed is a large circular platform that rotates like a carousel whilst the cows are being milked. The cows walk on to the raised platform at the entrance point and an operator applies the milking machines. Each cow is in an individual stall and the platform slowly rotates so milking is completed by the time the cow has completed the circle. Another operator at the exit point removes the cups and the cows leave the platform.



## ACTIVITY TWO - TECHNOLOGY

# STUDENT WORKSHEET

School Name \_\_\_\_\_

Student Name \_\_\_\_\_

Year Level \_\_\_\_\_

### Word find questions

Listen to [Farmer Bill's Video 2](#) and the [Daviesway Video](#)

#### Find the answers (Daviesway)

1. How many doors does the Boumatic MRS2 Milking Robot have?  
\_\_\_\_\_
2. What is setup to allow the robot to select the cows?  
\_\_\_\_\_
3. How does the Robot identify each cow?  
\_\_\_\_\_
4. What drops into a tray if the Robot determines the cows should be milked?  
\_\_\_\_\_
5. What does the milking arm have that helps guide it to the cows' udder?  
\_\_\_\_\_
6. What happens to the teat cups when they are returned to their protective holder?  
\_\_\_\_\_
7. After the cows are milked, what happens to her teats?  
\_\_\_\_\_
8. How can all the data for the cow be viewed?  
\_\_\_\_\_

#### Find the answers (Farmer Bill)

1. What is the identification tag called that Farmer Bill uses?  
\_\_\_\_\_
2. On the platform what can the computer read?  
\_\_\_\_\_
3. Once the computer identifies the cows what can it then adjust?  
\_\_\_\_\_
4. What is herd test used for on Bill's farm?  
\_\_\_\_\_
5. What type of shed does Farmer Bill own?  
\_\_\_\_\_

**Note: Please find these answers in the word find on the following page.**



## ACTIVITY THREE - AN INTRODUCTION

# ENVIRONMENT/NATURAL RESOURCES

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- 1. READ** Learning activity three - overview sheet
- 2. WATCH** Video(s) - [Farmer Bill's Video 3](#) & [Jamie Durie Groundswell Platform Video](#)
- 3. READ** Learning activity three - information sheet
- 4. COMPLETE** Learning activity three - student worksheet
- 5. SUBMIT** Learning activity three - student worksheet to your teacher



# ACTIVITY THREE - ENVIRONMENT/NATURAL RESOURCES

## OVERVIEW

### Purpose:

1. Update about **Bright & Future** how they have progressed, how much they have grown and whether their diet has changed since the last update. VISUAL LEARNING/VIDEO
2. Introduce the Environmental practices on Bill Loughridge's farm to the students, provide information about how these are implemented on his farm. VISUAL LEARNING/ VIDEO
3. Introduce Jamie Durie's Groundswell platform which talks about the Australian dairy industry's sustainability story. VISUAL LEARNING/VIDEO
4. Engage the students to learn about the Dairy Industry's mission to meet the challenge of climate change and good stewardship of our natural resources. READING/COMPREHENSION
5. Test the knowledge of the students with an engaging learning activity/competition. REVISION

### Week three:

- This is your third weekly activity for Cows Create Careers. Schools can choose which week they wish to start during Term 2 or 3, 2023
- Students will need to allocate 60-90 minutes which includes reading, comprehension, revision and some physical activity.

### Activities:

#### The students will:

- Complete a student crossword to test their learning
- Write 100 words on what the dairy industry is doing to improve land management, increase water use efficiency, reduce greenhouse gas emission intensity and reduce waste
- Get some exercise and provide a 60 second video on how they are managing the waste in their household
- Tell us how they currently manage their waste at home and how they can improve
- Share their learning with the family - perhaps they may get involved in the video as well!

A template will be provided in both Microsoft Word and as an interactive PDF for students to complete this activity.

### What is provided?

- Two short videos for students to watch and learn
- A short document for students to read about Natural Resources and Environmental management in relation to dairy farming
- A template in Word and/PDF for student to complete the activity
- An answer sheet for the teachers.

### Competition

- Each teacher will forward their best two submissions from Week Three by the end of Term 2 or 3, 2023 (or earlier if they wish) to [admin@jaydee.net.au](mailto:admin@jaydee.net.au)

### Support

The Cows Create Careers team are here every day and ready to respond to any questions immediately by either emailing [admin@jaydee.net.au](mailto:admin@jaydee.net.au) or phoning John 0412 368 739 or Deanne 0419 878 055.

## CURRICULUM AREAS

### English/Literacy:

Years 5 to 10: ACELY1707, 1704, 1717, 1714, 1728, 1725, 1738, 1736, 1748, 1746, 1776, 1756

Year 11: English Unit 1: Create a range of texts, Reflect on their own and others' text

### Humanities

Years 5-6: Inquiry and skills

Years 7 to 10: ACHGK037, 038, 052, 063, 070, 071

### Media Arts

Years 5 to 10: ACAVAM116, 120, 128  
ACAMAM068,69

### Science

Year 11: Earth & Environmental Science Unit 1 & 2 – ACSES010

# ACTIVITY THREE - ENVIRONMENT/NATURAL RESOURCES

## INFORMATION

**Our mission is to meet the challenge of climate change and provide good stewardship of our natural resources.**

### **Good environmental management is just 'good management'**

Dairy farmers are environmental caretakers. They're committed to managing land and water responsibly, reducing greenhouse gases and protecting Australia's natural resources for future generations.

Check out this video (<https://youtu.be/CZWubzEGEeA>) produced for Jamie Durie's Groundswell platform which talks about the Australian dairy industry's sustainability story to inspire people to make sustainable choices in their lives. Most dairy farmers understand that what is good for the earth is also good for them, their animals and their business.

### **Climate change challenge**

With climate change comes increasing heatwaves, storms and drought which will affect animal welfare and milk production, as well as limit pasture growth. On top of that, competition for natural resources is growing worldwide, while a drying climate is likely to place increasing pressure on already stressed water resources.

With this, comes the combined challenge of providing sufficient milk to meet global market demands, the opportunity to adapt our practices to climate change, as well as further reduce waste and improve productivity.

As a result, many environmental initiatives are happening on dairy farms and in dairy processing facilities right now.

A significant, long-term response to the impacts of climate change is required. As part of this response we'll mitigate our own greenhouse gas emissions and reduce water intensity in manufacturing and on farms.

To ensure we tackle the challenges head-on, we have identified four key goals to achieve by 2030:

#### **Improve land management**

<https://www.dairy.com.au/sustainability/reducing-environmental-impact/land-management>

#### **Increase water efficiency**

<https://www.dairy.com.au/sustainability/reducing-environmental-impact/water-efficiency>

#### **Reduce greenhouse gas emissions**

<https://www.dairy.com.au/sustainability/reducing-environmental-impact/reducing-emissions>

#### **Reduce waste**

<https://www.dairy.com.au/sustainability/reducing-environmental-impact/reducing-emissions>

To meet these goals, here are some examples of what we're implementing:

**Irrigation** — On-farm we're working with farmers on smarter irrigation practices and developing a simple online water budget and water risk management tool.

**Emissions** — Developed as part of the Profitable Dairying in a Carbon-Constrained Future program, the Dairy Climate Toolkit enables quick evaluation of the impacts of different greenhouse gas reduction strategies.

**Food recovery** — Tackling the emerging issue of food waste, the dairy industry is now a major player in food recovery and donation to charities like Foodbank. Ways to reduce food waste are also being investigated.

**Innovation** — The Dairy Manufacturers Sustainability Council's (DMSC) regular expert forums are invaluable to share the latest technologies and products to reduce energy, water use and waste.

For more information on how the industry is working towards more sustainable practices, view the latest [Australian Dairy Industry Sustainability Framework](#)

# ACTIVITY THREE - ENVIRONMENT/NATURAL RESOURCES

## STUDENT WORKSHEET

School Name \_\_\_\_\_

Student Name \_\_\_\_\_

Year Level \_\_\_\_\_

### Crossword clues

Listen to [Farmer Bill's Video 3](#) and the [Jamie Durie Groundswell Platform Video](#)

#### Clues from Jamie's video

- Wilko & Sandra Droppert are dairyfarmers who have the aim to become carbon neutral by largely storing more carbon in the \_\_\_\_\_ [4 Down]
- The Droppert Family plan to use \_\_\_\_\_, wind and batteries to reduce their carbon footprint [7 Across]
- Brad Ridoutt, CSIRO stated that if Australians shifted to eat more like the way we are recommended to by the dietary guidelines then overall our \_\_\_\_\_ gas emissions would go down by 12 percent [5 Across]
- Ad van Dijk from Lion Dairy & Drinks stated that the company's aim is to have a zero footprint and landfill target, they are producing a \_\_\_\_\_ made bottle to reduce their footprint [9 Down]

#### Clues from Bill's video

- In 1991-92 Farmer Bill helped start up the Mount Lyall \_\_\_\_\_ group and has been an active conservationist member since [2 Down]
- Farmer Bill \_\_\_\_\_ the waterways and remnant vegetation to improve water quality [8 Across]
- Melbourne Water are now taking on the responsibility for improving the bigger water front edges as it helps improve \_\_\_\_\_ from entering the main river ways [3 Down]
- The addition of \_\_\_\_\_ along the waterways has made the farm look a whole lot more aesthetically beautiful [1 Down]
- Farmer Bill is utilising the \_\_\_\_\_ from the dairy to grow crops and improve the soil to grow grass in the summertime. [6 Down]

**Note: Complete the crossword over the page using your answers**







## ACTIVITY FOUR - AN INTRODUCTION

# KEEPING COMMUNITIES FARM SAFE

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### 1. FINAL VOTING FOR CALVES COMPETITION

[www.surveymonkey.com/r/2023finalbrightfuture](http://www.surveymonkey.com/r/2023finalbrightfuture)

2. **READ** Learning activity four - overview sheet

3. **WATCH** Video(s) - [Farmer Bills Video 4](#), [Hammond Video](#) & [Cope Video](#)

4. **READ** Learning activity four - information sheet

4. **COMPLETE** Learning activity four - student worksheet

5. **SUBMIT** Learning activity four - student worksheet to your teacher



# ACTIVITY FOUR - KEEPING COMMUNITIES FARM SAFE

## OVERVIEW

### Purpose:

1. Update about **Bright & Future** how they have progressed, how much they have grown and whether their diet has changed since the last update. VISUAL LEARNING/VIDEO
2. Introduce Gippsland dairy farmer, Trish Hammond to talk about the safety system she has developed on her farm. VISUAL LEARNING/VIDEO
2. Introduce Gippsland Focus farmers, Graeme & Jenny Cope to talk about quad bike safety on their farm. VISUAL/LEARNING VIDEO
3. Engage the students to learn about the importance of safety on farms and in their communities. READING/COMPREHENSION
4. Test the knowledge of the students with an engaging learning activity/competition. REVISION

### Week four:

- This is your fourth weekly activity for Cows Create Careers. Schools can choose which week they wish to start during Term 2 or 3, 2023
- Students will need to allocate 60-90 minutes which includes reading, comprehension, revision and some physical activity.

### Activities:

#### The students will:

- Complete a 'spot the difference' exercise to test their learning about farm safety
- Come up with an A-Z list or guide about Farm Safety
- Identify the most hazardous room in their home and take a picture of two different examples of how they could minimise or prevent injury. Students will be required to take before and after pictures

- Involve their family to help get some ideas flowing.

A template will be provided in both Microsoft Word and as an interactive PDF for students to complete this activity.

### What is provided?

- Three short videos for students to watch and learn
- A document for students to read information about Keeping Communities Farm Safe
- A template in Word and/PDF for students to complete the activity
- An answer sheet for the teachers.

### Competition

- Each teacher will forward their best two submissions from Week Four by the end of Term 2 or 3, 2023 (or earlier if they wish) to [admin@jaydee.net.au](mailto:admin@jaydee.net.au)

### Support

The Cows Create Careers team are here every day and ready to respond to any questions immediately by either emailing [admin@jaydee.net.au](mailto:admin@jaydee.net.au) or phoning John 0412 368 739 or Deanne 0419 878 055.

### CURRICULUM AREAS

#### English/Literacy:

Years 5 to 10: ACELY1707, 1704, 1717, 1714, 1728, 1725, 1738, 1736, 1748, 1746, 1776, 1756

Year 11: English Unit 1: Create a range of texts, Reflect on their own and others' text

#### Health & Physical Education

Years 5 to 10: ACPPS054, 073, 095, 096

#### Media Arts

Years 5 to 10: ACAVAM116, 120, 128  
ACAMAM068, 69

# ACTIVITY FOUR - KEEPING COMMUNITIES FARM SAFE

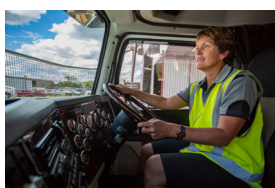
## INFORMATION

### People on farm

**Remember farms can be dangerous places and there are rules and practices to consider to ensure everyone working, living on or visiting a farm is kept safe.**

#### Farm owners and operators should:

- Allocate areas for all visitors to feel safe
- Make sure visitors are not permitted in the work areas unless supervised
- Provide visitors with a High-Vis Vest if supervising them to visit a work area
- Where possible provide a separate roadway for heavy vehicles/machinery away from the house
- Erect signage to alert visitors about all roadways used by heavy vehicles/machinery
- Speed restriction zones near a house
- Fence off any water sources such as tanks, pools, dams, especially if near the house.



### Animals

**Interacting with animals on a farm can be dangerous and you should always treat animals with caution**

#### Cows:

- A full-grown Holstein cow weighs an average of about 700kg
- Many people handling cows can be injured by being kicked, stood on or crushed
- Cows can be unpredictable at times. Even docile animals can change temperament if stressed or isolated
- Cows with young calves can become agitated
- Horned cows increase the risk of injury



- Working with cows on your own should be avoided, particularly when working in yards, loading cows, undertaking tasks with newborn calves and working with bulls.

### Mobile machinery

**Mobile machinery is used on and around a farm. When this machinery is not used properly it can be very dangerous**

#### Adult quad bikes:

- Not to be ridden by anybody under 16 years old
- No passengers allowed
- Helmets must be worn
- Should have a crush protection device
- Keys should be removed when not in use.



#### Tractors:

- Should only be driven by licensed drivers
- Visitors should not be in the work area where a tractor is being used unless supervised and wearing a High-Vis Vest
- Tractors should all be fitted with Roll-over Protection
- Instruct children not to approach operating machinery
- Keys should be removed when not in use.



#### Farm utes

- Should only be driven by licensed drivers
- People should only ride in the vehicle cabin if there is a seat belt fitted
- Keys should be removed when not in use.



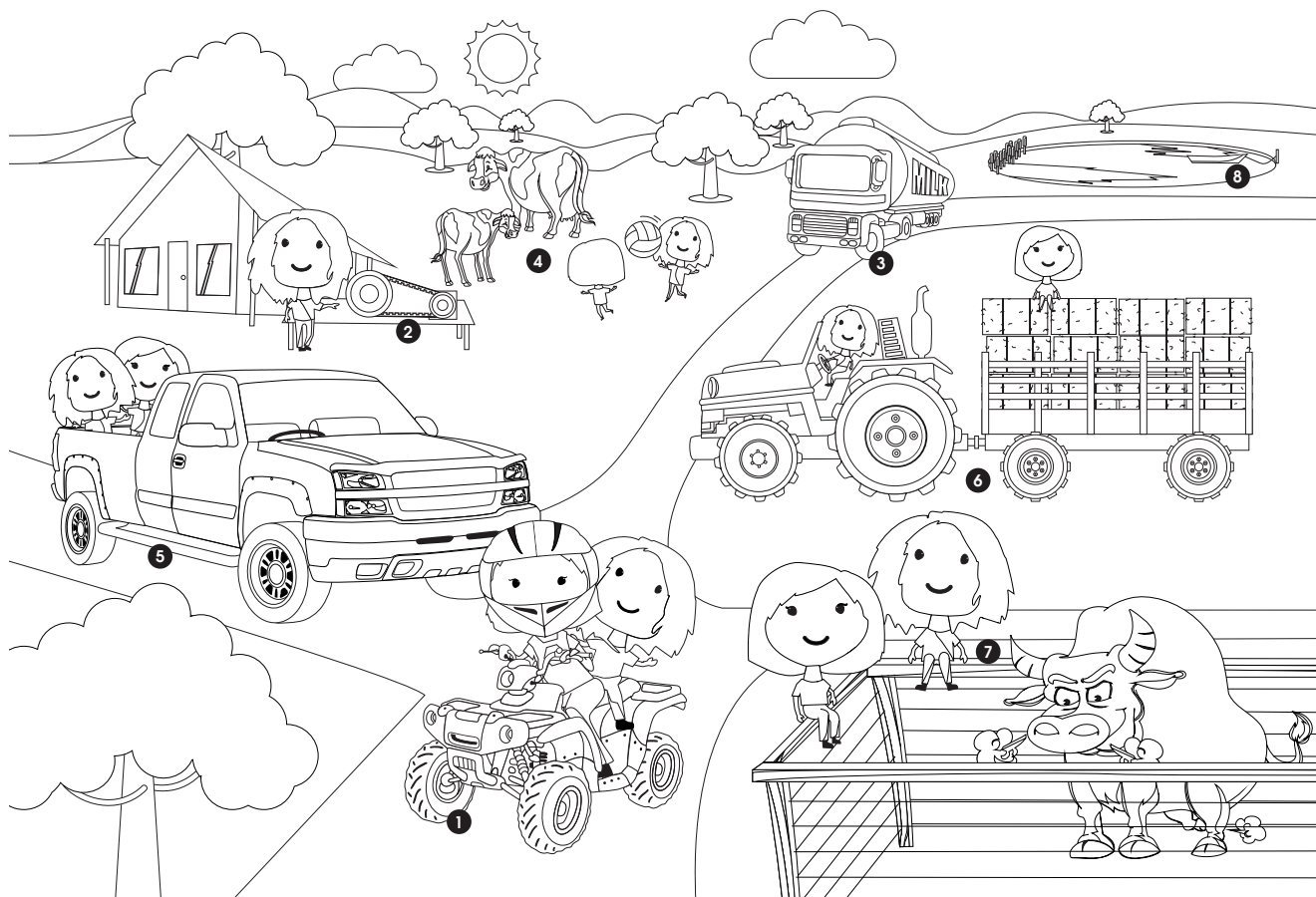
# ACTIVITY FOUR - KEEPING COMMUNITIES FARM SAFE

## STUDENT WORKSHEET

School Name \_\_\_\_\_ Student Name \_\_\_\_\_

Year Level \_\_\_\_\_

### Spot the safety problem



1
2
3
4

5
6
7
8

Reference: Dairy Australia

## A - Z farm safety checklist

Use each letter of the alphabet below to identify a potential hazard / risk that may be found on a dairy farm and then provide an explanation as to how to minimise this risk. Use your own words. A Farm lego guide example has been provided with ideas. [Teachers: students can either complete below or develop a entire guide/booklet, the choice is yours]

A is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

B is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

C is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

D is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

E is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

F is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

G is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

H is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

I is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

J is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

K is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

L is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

M is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

N is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

O is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

P is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

Q is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

R is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

S is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

T is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

U is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

V is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

W is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

X is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

Y is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_

Z is for \_\_\_\_\_ Minimise the risk by: \_\_\_\_\_



## ACTIVITY FIVE - AN INTRODUCTION

# MARKETING AND DAIRY CAREERS

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- 1. SURVEY** [www.surveymonkey.com/r/2023cccstudentexit](http://www.surveymonkey.com/r/2023cccstudentexit)
- 2. READ** Learning activity five - overview sheet
- 3. WATCH** [Video to Farewell Bright & Future](#)  
& hear the announcement of their new names
- 4. READ** Learning activity five - information sheet
- 5. COMPLETE** Learning activity five - student worksheet
- 6. SUBMIT** Learning activity five - student worksheet to your teacher





# ACTIVITY FIVE - MARKETING AND DAIRY CAREERS

## OVERVIEW

### Purpose:

1. Experience a real life example of the importance of marketing products/services in the dairy industry
2. Explore some career pathways in the dairy industry by investigative learning

### Week five:

- This is your fifth weekly activity for Cows Create Careers. Schools can choose which week they wish to start during Term 2 or 3, 2023
- Students will need to allocate 60-90 minutes which includes reading, comprehension, research and revision.

### Activities:

#### The students will:

- Select one company from the Information sheet to design a new sales pitch and a new logo that best explains what the company does, ie. Cows Create Careers – ‘teaching students about agriculture’
- Research and identify three careers in the dairy industry. Use the information sheet with the company logos to assist. Each of these logos are connected to that company’s websites to conduct your research
- Write a paragraph about those three careers and tell us what those careers involve
- Senior students may wish to look at the Snakes & Ladders sheet provided so that they can see the pathways in dairy

A template will be provided in both Microsoft Word and as an interactive PDF for students to complete this activity.

### What is provided?

- A document for students to read and research information about different companies who work in the dairy industry
- A template in Word and/PDF for student to complete the activity
- An answer sheet for the teachers.

### Competition

- Each teacher will forward their best two submissions from Week Five by the end of Term 2 or 3, 2023 (or earlier if they wish) to [admin@jaydee.net.au](mailto:admin@jaydee.net.au)

### Support

The Cows Create Careers team are here every day and ready to respond to any questions immediately by either emailing [admin@jaydee.net.au](mailto:admin@jaydee.net.au) or phoning John 0412 368 739 or Deanne 0419 878 055.

### CURRICULUM AREAS

#### English/Literacy:

Years 5 to 10: ACELY1707, 1704, 1717, 1714, 1728, 1725, 1738, 1736, 1748, 1746, 1776, 1756

Year 11: English Unit 1: Create a range of texts, Reflect on their own and others’ text

#### Media Arts

Years 5 to 10: ACAVAM064, 069, 076

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one of our MaxCare  
Competitions**

# ACTIVITY FIVE - MARKETING AND DAIRY CAREERS

## INFORMATION



**SADA Fresh**



**MaxCare**



**Daviesway**



**Gardiner Foundation**



**Dasco**



**Peach Teats**



**Stallion**



**Kettridges**



**Nutrien Ag Solutions**



**Reid Stockfeeds**



**Vella Stockfeeds**



**La Casa Del Formaggio**



**Hills Farm Supplies**



**Laucke Mills**



**Beston Global Food Company**



**Norco Rural**



**Dairy Australia**



**Tocal College**



**TRAC**



**Jaydee Events**



# 3 - CREATIVE PHOTO TASK

This task is asking for you to show us your creative side.

## Take a creative photo of:

1. Your team with the calves. As an extra, we would like you to include the bag of milk powder that has been sponsored for your school.

OR

2. Yourself or your team with some dairy products from home or school.

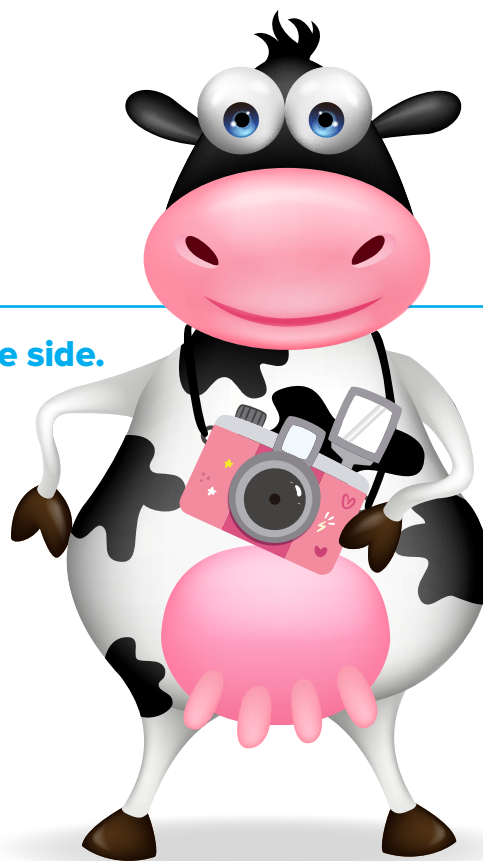
What makes your photo stand out from the rest? Make sure you have a point of difference.

Remember this task can be customised depending on the COVID rules in your school.

Outcomes presented here are indicative, and will vary depending on the direction individual projects take.

## ACARA outcomes – Years 5 and 6

Media Arts **ACAVAM116**



## ACARA outcomes – Years 7 and 8

Media Arts **ACAMAM069**

## ACARA outcomes – Years 9 and 10

Media Arts **ACAVAM128**

# 4 - STUDENT EVALUATION – ENTRY AND EXIT

The survey information for Cows Create Careers is important to Jaydee Events Pty Ltd and their sponsoring partners to gain an understanding about student learning, student involvement and student interest in the dairy industry.

Submit your student evaluation data using these links:

**Entry** [surveymonkey.com/r/2023cccstudententry](https://surveymonkey.com/r/2023cccstudententry)

**Exit** [surveymonkey.com/r/2023cccstudentexit](https://surveymonkey.com/r/2023cccstudentexit)

If you do not have access to a computer or the internet to complete this survey online then please ask your teacher for a physical copy.

Remember to answer the questions independently.

# 5 - FINAL TEAM CHECKLIST

Teachers should select their best team to submit for assessment. If a school has both juniors and seniors participating in the project they can submit the best team's work for each section. All student surveys will be conducted online using a Survey Monkey link.

Team name: \_\_\_\_\_ Year: \_\_\_\_\_

Student names (for certificates, please write neatly!):

\_\_\_\_\_  
\_\_\_\_\_

## Has your team submitted the following work?

Missing assessment work will be recorded as unsubmitted and will not be followed up.

### Please tick what your team has submitted

- |   |  |
|---|--|
| <input type="checkbox"/> Activity 1 - An introduction                             | <input type="checkbox"/> Activity 2 - Technology               |
| <input type="checkbox"/> Activity 3 - Environment/Natural resources               | <input type="checkbox"/> Activity 4 - Keeping communities safe |
| <input type="checkbox"/> Activity 5 - Marketing and dairy careers                 | <input type="checkbox"/> Creative photo task                   |
| <input type="checkbox"/> Student evaluation - entry and exit - Survey Monkey link |  |

## Mail or digitally submit your assessment work

Save all your files with your team name and the type of activity as the name of the file.

### Submission options

**Dropbox** – Email [deanne@jaydee.net.au](mailto:deanne@jaydee.net.au) to request your Dropbox link, then simply upload your files.

**Google drive links** – Are you using Google as your mail server? Simply attach all your large files to an email and Google will send via Google drive links.

**Mail** – Express Post your work on a memory stick to: Cows Create Careers, PO Box 18, LOCH VIC 3945

## CONTACT DETAILS

**Cows Create Careers Project Managers:**  
John Hutchison & Deanne Kennedy

**JAYDEE EVENTS PTY LTD**  
PO Box 18, LOCH VIC 3945

**M** 0412 368 739 (John)  
0419 878 055 (Deanne)

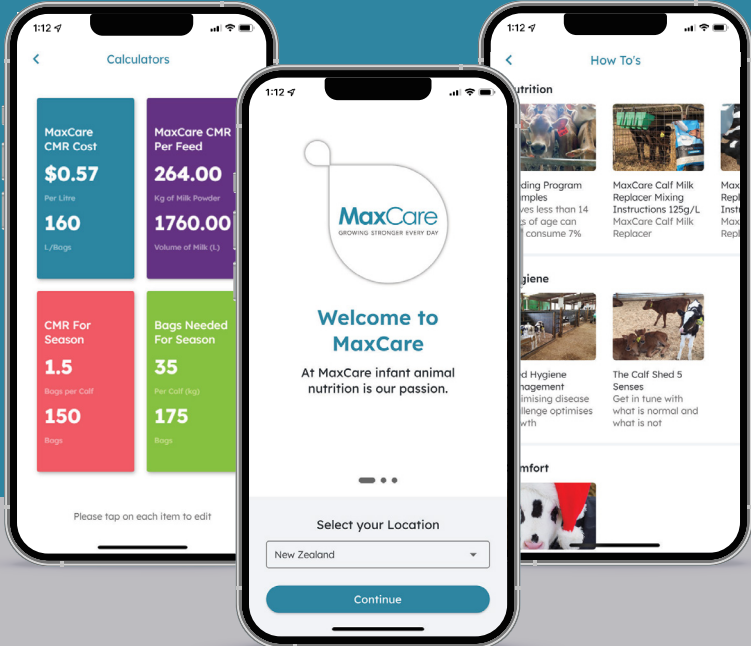
**E** [admin@jaydee.net.au](mailto:admin@jaydee.net.au)

Complete this as a checklist for your team, and submit with their work.

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