



# 2023 FULL CREAM CURRICULUM



# THE COWS CREATE CAREERS PROJECT IS FUNDED BY:

Dairy Partners



Major Sponsorship Partners



## 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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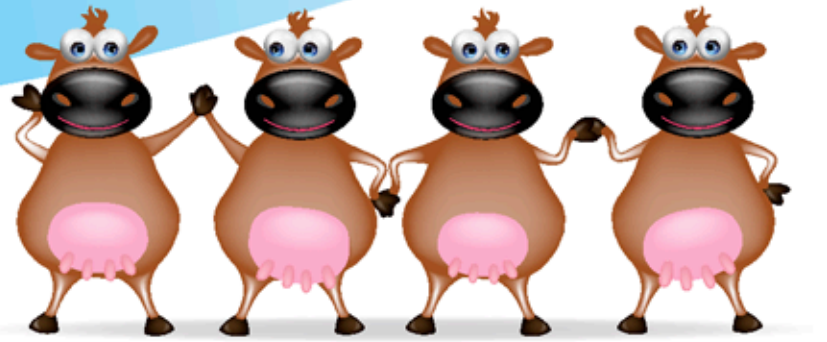
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# OVERVIEW



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.

## Scientific report

Create a science report to record the progress of the calves whilst they are in your care.

## Presentation & awards day

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

## 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.

## Letter/email task

Write a letter or email to Jaydee Events Pty Ltd and make sure you tell them of your new-found understanding about the dairy industry.

## 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.

## Multimedia authoring

Choose a topic and create a Mootube movie or PowerPoint presentation.

## 3D model

Choose a topic and create a 3D model using visual art to demonstrate your dairy learning.

## Caring for calves

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

## 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.

## 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.



# 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 2-5 students and think of a catchy name for your team.

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

1. **1.1 3D model** (pages 8-19) or **1.2 Mootube moovie/PowerPoint** (pages 20-21)
2. **2.2 Letter/email** to Jaydee Events Pty Ltd (pages 22-23)  
**2.2 Scientific report** (page 24)
3. Take a **Creative photo** (page 25)
4. **Student evaluation** – entry and exit (page 25)
5. **Final team checklist** (page 26)

## 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.



# 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

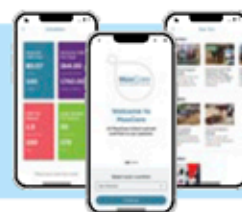
Personal hygiene is critical when looking after animals. Make sure that your team and class understands why. Display the hygiene poster as a reminder to students.

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

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

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

Use the MaxCare app on page 27 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**



# TASKS FOR SUBMISSION

## 1 3D model or Mootube moovie/ PowerPoint

Choose one of these tasks to submit:

### 1.1 3D model task

Choose from one of the eight research topics below.

- 1 Calf rearing
- 2 Finance management
- 3 Identification and breeding
- 4 Natural resource management
- 5 The dairy industry
- 6 The fifth food group
- 7 Researching animal behaviours through cattle handling
- 8 Farm safety.

Create an informative and illustrated 3D model. There are no shape or size requirements.

Further details about this task and topics can be found on pages 8–19.

**OR**

### 1.2 Mootube moovie/PowerPoint task

Choose from one of the four statements below:

- 1 Role-play a career in the dairy industry, include what is fun about the job.
- 2 Tell the viewers about best practice when caring for the calves.
- 3 Tell the viewers why dairy is an important part of your health and nutrition.
- 4 Dress up as scientists and carry out a simple science experiment.

The Mootube moovie should be timed for 3 minutes (+/- 10 seconds). Further details about this task can be found on pages 20-21.

## 2 Letter/email or Scientific report

### 2.1 Letter/email task

This publishing task involves writing a letter or email. The letter or email should be addressed to Jaydee Events Pty Ltd and focus on the industry advocate, the dairy farmer, and how the team felt about the Cows Create Careers project. All letters or emails should be presented in a business format.

Further details about this task can be found on pages 22-23.

**OR**

### 2.2 Scientific report task

Create a scientific report which can be submitted to provide a summary of the calves' condition during their time in your care.

Further details about this task can be found on page 24.

## 3 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 25.

## 4 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 25.

## 5 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 26.

# 1.1 - 3D MODEL TASK

**In teams of 2–5, choose a research topic from the list on the following page. Work together to create an informative and illustrated 3D model such as a poster, diorama, working model or sculpture, this will become your 3D model.**

It is important to include illustrations and text to explain what you have learned about your research topic and to link your 3D model to career pathways in the dairy industry.

Ensure that you use relevant pictures and your own words to explain your learnings.

Use the internet, library, an industry advocate, dairy farmer or maybe even your teacher, to help with ideas and information.

Don't forget there is a full page in this handbook relating to each research topic. Use this to start your ideas.

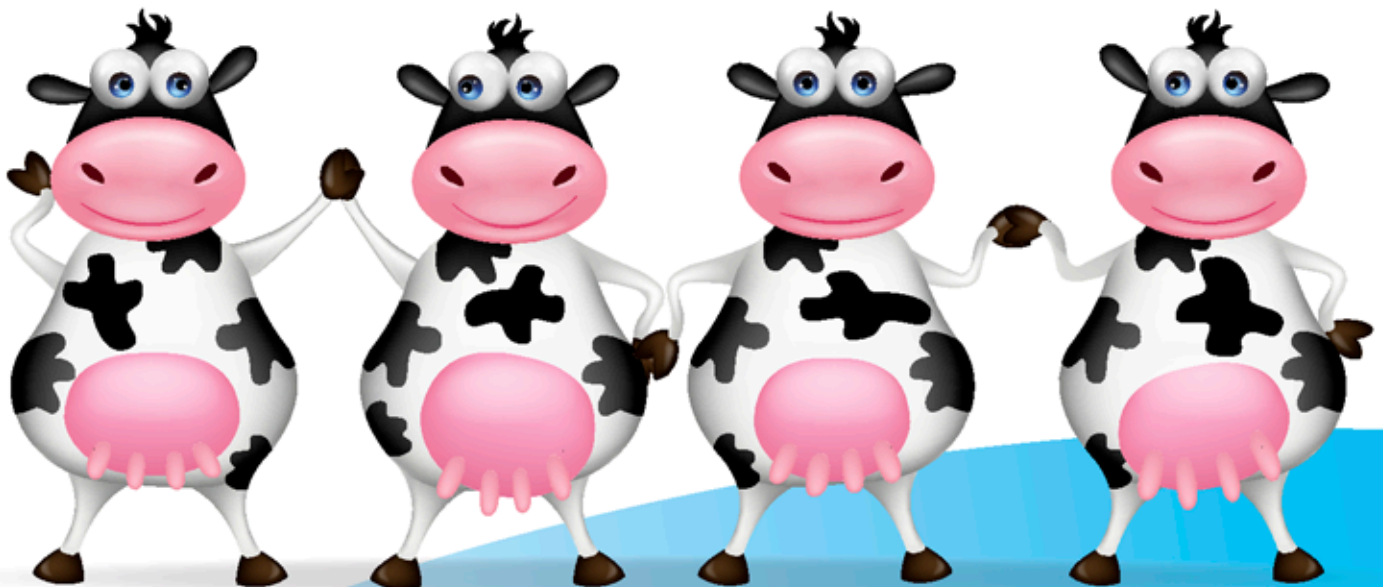
Each team may use the completed 3D model as the focus of a class talk. (All team members must have some involvement in this class talk).

Your team must submit high-quality photos that clearly show your 3D model close up so that judges can read the text and assess the overall visual appeal.

No physical copies of the models are to be posted to Cows Create Careers, only photos.

Organise with your teacher to have the 3D models on display. Display the models in the classroom or at the venue for the presentation day.

**Work together to learn about the dairy industry, career options, pathways and the many related industries.**



# SUGGESTED RESEARCH TOPICS

Following are some research topics for your 3D Model.

Years 9 -11 select from topics 1 to 8.

Years 5-8 select from topics 1, 4, 5, 6, 7 or 8.

## Topic 1 - Calf rearing

*Sample core focus:*

- 1 Explain the main objectives of calf rearing.
- 2 Discuss issues such as the management of calves, housing, feeding requirements and disease management. Illustrate the important events in a young female calf's life.

## Topic 2 - Finance management

*Sample core focus:*

- 1 Identify the key elements of financial planning in relation to a particular career (of your choice) in the dairy industry.
- 2 Explain how an understanding of these key elements will strengthen this career. Describe some likely outcomes of poor performance in these areas.

## Topic 3 - Identification and breeding

*Sample core focus:*

- 1 Research the latest technology in the dairy industry concerning identification, animal genetics or animal reproduction.
- 2 Evaluate whether these technologies have been effective. Shape and report your conclusion.

## Topic 4 - Natural resource management

*Sample core focus:*

- 1 Identify and explain the projects that the dairy industry has initiated in the area of natural resource management.
- 2 How have these projects contributed to a healthier catchment and community?

## Topic 5 - The dairy industry

*Sample core focus:*

- 1 Identify and research the significance of the dairy industry to your local community.
- 2 Explore the career pathways that relate to dairy in your community.
- 3 Draw up a concept map showing the industries and other services and how they relate to the dairy industry, community and other services.

## Topic 6 - The fifth food group

*Sample core focus:*

- 1 Research the five food groups and where dairy fits in relation to a healthy eating pattern.
- 2 Conduct a minor survey at class or school level to determine whether dairy is a prominent part of their diet.

## Topic 7 - Researching animal behaviours through cattle handling

*Sample core focus:*

- 1 Consider the facilities that cattle are housed in. What are the conditions necessary for best practice when caring for animals?
- 2 Using scale diagrams, or by making a 3D model, design an animal production facility such as a dairy, cattle yards, or housing for the calves at school.

## Topic 8 - Farm safety

*Sample core focus:*

- 1 Investigate farm safety and present a report on the potential dangers of the dairy farm environment.
- 2 Recommend guidelines to minimise risks for people who live on, work on or visit dairy farms.

Make sure you include a list of dairy related career pathways on your 3D model.

## RESEARCH TOPIC 1

# CALF REARING

### Key ideas

- What are the nutritional requirements of a calf?
- Discuss, then calculate the quantity of various feed sources required.
- Identify environmental conditions conducive to calf safety. In your team, create a plan for shed and hygiene management using the MaxCare App on page 27.
- Refer to the checklists for monitoring cattle included in your *School Resource Kit*. Is your team equipped to handle this? For example, can you demonstrate the correct method of weighing the calves?
- Research the standard growth curves for calves and use these to develop targets for your calves. While the calves are at school, monitor their growth and compare the results with standard growth rates.
- Create a timeline that illustrates the important events in a young female calf's life (birth, weaning, mating, first calving, etc.).
- Estimate the quantity of milk, fat and protein the calf will produce during her first lactation
- Research the Calf Shed 5 Senses using the MaxCare App on page 27.

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

### ACARA outcomes – Years 5 and 6

**Science** [AC SIS231](#), [AC SIS232](#)

**Mathematics** [AC MSP118](#), [AC MSP148](#)

**Humanities** [AC HASSI102](#), [AC HASSI130](#)

**Technologies/Literacy** [AC TDEP024](#),  
[AC ELY1704/1714](#)

**The Arts** [AC AVAM115](#), [AC AVAM116](#)

### ACARA outcomes – Years 7 and 8

**Science** [AC SIS124](#), [AC SIS139](#)

**Mathematics** [AC MSP169](#), [AC MSP206](#)

**Humanities** [AC HES021](#), [AC HES032](#)

**Technologies/Literacy** [AC TDEP035](#),  
[AC ELY1725/1736](#)

**The Arts** [AC AVAM121](#)

### ACARA outcomes – Years 9 and 10

**Science** [AC SIS164](#), [AC SIS198](#)

**Mathematics** [AC MSP228](#), [AC MSP253](#)

**Humanities** [AC HES045/57](#), [AC HES048/60](#)

**Technologies/Literacy** [AC TDEP049](#),  
[AC ELY1746/1756](#)

**The Arts** [AC AVAM126](#), [AC AVAM128](#)

### ACARA outcomes – Year 11

#### Senior secondary curriculum

**English Unit 1** – Create a range of texts:

[AC EEN011–AC EEN017](#), Reflect on their own and others' text by: [AC EEN018-020](#)

**General Mathematics Unit 2** – The statistical investigation process: [AC MGM026](#), Making sense of data relating to a single statistical variable:

[AC MGM027-030](#)

**Science Unit 1** – Biology – Science Inquiry Skills:

[AC SBL001-007](#)

**Science Unit 1 & 2** – Earth & Environmental Science – Science as a Human Endeavour:

[AC SES008-014](#)

Teams can present their research to the class.

## RESEARCH TOPIC 2

# FINANCE MANAGEMENT

### Key ideas

An important aspect of dairying is understanding finance. There is always a bottom line in any business, and efficient use of the resources will help ensure a healthy bottom line.

A dairy farm is a business, and many who work in the dairy industry manage their own businesses.

Provide a report on the key elements of financial planning, including:

- Planning and budgeting
- Recognising unnecessary and excessive spending
- Monitoring weekly and monthly progress
- Setting goals and targets
- Understanding credit
- Planning for the future.

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

### ACARA outcomes – Years 9 and 10

**Science** [AC SIS169](#), [AC SIS206](#)

**Mathematics** [AC MSP228](#), [AC MSP253](#)

**Humanities** [AC HES044/56](#), [AC HEK053](#)

**Technologies/Literacy** [AC TDEP049](#),  
[AC ELY1746/1756](#)

**The Arts** [AC AVAM126](#), [AC AVAM128](#)

### ACARA outcomes – Year 11

#### Senior secondary curriculum

**English Unit 1** – Create a range of texts:

[ACEEN011-ACEEN017](#), Reflect on their own and others' text by: [ACEEN018-020](#)

**General Mathematics Unit 2** – The statistical investigation process: [ACMGM026](#), Making sense of data relating to a single statistical variable:

[ACMGM027-030](#)

Teams can present their research to the class.



## RESEARCH TOPIC 3

# IDENTIFICATION AND BREEDING

### Key ideas

Well, you've no doubt worked out by now that dairying is big business. No wonder farmers spend so much time studying and applying the latest science and technology to their business.

Technology is advancing quickly in the areas of identification and breeding on dairy farms. The following page of this handbook will help you to shape your research and focus on this activity. Research either herd identification, animal genetics or animal reproduction.

Whilst researching, consider and report on the latest technologies that have been introduced in each of these areas. Take the time to evaluate what the technologies set out to achieve and whether this has been effective.

Make sure you explore these technologies on a global basis and then consider the possibilities of this technology being suitable for Australia.

Research, then list the main reasons for identifying animals in the herd.

- What methods of identification are used by the owner of the calves?
- Prepare a 'pedigree report' for each calf.
- List five characteristics that could be passed on by the sire and dam for each calf.
- Identify the countries represented in each pedigree.
- Research, then list some of the roles of herd-testing and artificial-breeding organisations.
- Find out why the National Livestock Identification System (NLIS) was introduced.
- The following page of this handbook will help you shape your research focus for this activity.

### Research support

#### Identification activity

- Research then list the main reasons for identifying animals in the herd.
- Find out why the NLIS was introduced.
- What is an NLIS tag? When does an animal receive its NLIS tag?
- What disease outbreaks have occurred in dairy industries overseas? Discuss why tracking the movement of animals is so important in Australia.
- What methods of identification are used by the owner of the calves?
- Some pure-bred dairy cows are registered in breed societies. Go to [holstein.com.au](http://holstein.com.au) or [jersey.com.au](http://jersey.com.au) to find out what breed societies do.
- Research the latest technologies available in the area of identification.

#### Animal genetics activity

- List five characteristics that could be passed on by the sire and dam for each calf.
- A pedigree is a family tree for an individual animal. Prepare a 'pedigree report' for each calf.
- Identify the countries represented in each pedigree.
- Find out some information about the dam of each calf. For example, how much milk did the dam produce last year? How many calves has she had? How old is she? When did she have her first calf?

- Find out some information about the sire of each calf. For example, what country does he live in? How many daughters does he have? How does he compare to other bulls? Hint... go to *datagene.com.au* – bull ABV quick search to find out.
- What are the names of six breeds of dairy cattle found in Australia? What makes each breed different?
- Find out the difference between inbreeding and crossbreeding.
- Australian cows are mated using artificial insemination or a natural bull. What are the advantages and disadvantages of these two practices? Discuss this as a class.
- Research the latest technologies available in the area of animal genetics.

#### Animal reproductive activity

- Prepare a 36-month (3-year) calendar and mark on it the key events in the life of a calf. For example:
  - When was she born?
  - How long will it be before she can be mated?
  - When will she have her first calf?
  - When will she start producing milk?
  - When will she be mated for the second time?
  - When will she be dried off (take a holiday from milking)?
- Pretend that a bull calf was born on the same day as your calf. When will he begin to produce semen?
- When cows are ready to be mated, they show signs of oestrus (heat). People say 'that cow is on heat'. What are the signs of a cow on heat?
- Research the latest technologies available in the area of animal reproduction.

Teams can present their research to the class.

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

#### ACARA outcomes – Years 9 and 10

**Science** ACSIS174, ACSIS208

**Mathematics** ACMSP228, ACMSP253

**Humanities** ACHES045/57, ACHES048/60

**Technologies/Literacy** ACTDEP049, ACELY1746/1756

**The Arts** ACAVAM126, ACAVAM128

#### ACARA outcomes – Year 11 Senior secondary curriculum

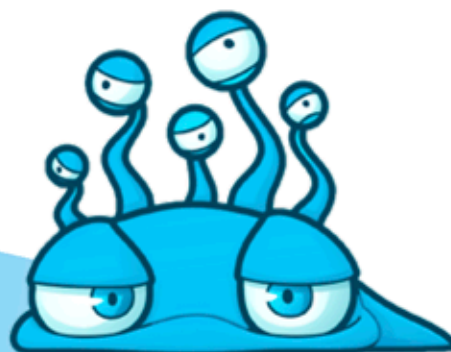
**English Unit 1** – Create a range of texts:

ACEEN011-ACEEN017, Reflect on their own and others' text by: ACEEN018-020

**General Mathematics Unit 2** – The statistical investigation process: ACMGM026, Making sense of data relating to a single statistical variable: ACMGM027-030

**Science Unit 1** – Biology – Science Inquiry Skills: ACSBL001-007

**Science Unit 1 & 2** – Earth & Environmental Science – Science as a Human Endeavour: ACSES008-014



## RESEARCH TOPIC 4

# NATURAL RESOURCE MANAGEMENT

The Australian dairy industry is recognised for its proactive approach to environmental management, an approach that is delivering significant outcomes in terms of on-farm change in environmental practices.

- As part of your research you can also investigate the nature of water scarcity and the role of humans in creating and overcoming it, relate your findings to dairy farming.
- The cornerstone of the Australian dairy industry's success in facilitating on-farm change is the industry-led Dairying for Tomorrow (DfT) program, managed by Dairy Australia.
- The projects and underlying philosophy of DfT actively encourage collaborative partnerships between the dairy industry and catchment managers to set on farm targets for change that will contribute to healthy catchments and communities.
- In recent years projects under DfT have changed the way farmers think about their environmental management and changed how the community looks at the role of farming.
- The DfT website *dairyingfortomorrow.com.au* will help you with your research into natural resource management.

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

### ACARA outcomes – Years 5 and 6

**Science** ACSIS231, ACSIS232

**Mathematics** ACMSP118, ACMSP148

**Humanities** ACHASSI102, ACHASSI130

**Technologies/Literacy** ACTDEP027,  
ACELY1704/1714

**The Arts** ACAVAM115, ACAVAM116

### ACARA outcomes – Years 7 and 8

**Science** ACSIS124, ACSIS139

**Mathematics** ACMSP169, ACMSP206

**Humanities** ACHES021, ACHES032

**Technologies/Literacy** ACTDEK032,  
ACELY1725/1736

**The Arts** ACAVAM121

**Health/Physical Education** ACPPS078

### ACARA outcomes – Years 9 and 10

**Science** ACSIS164, ACSIS198

**Mathematics** ACMSP228, ACMSP253

**Humanities** ACHGK063, ACHGK073

**Technologies/Literacy** ACTDEP051,  
ACELY1746/1756

**The Arts** ACAVAM126, ACAVAM128

### ACARA outcomes – Year 11

#### Senior secondary curriculum

**English Unit 1** – Create a range of texts:

ACEEN011-ACEEN017, Reflect on their own and others' text by: ACEEN018-020

**General Mathematics Unit 2** – The statistical investigation process: ACMGM026, Making sense of data relating to a single statistical variable:

ACMGM027-030

**Science Unit 1** – Biology - Science Inquiry Skills: ACSBL001-007

**Science Unit 1 & 2** – Earth & Environmental Science - Science as a Human Endeavour: ACSES008-014

Teams can present their research to the class.



## RESEARCH TOPIC 5

# THE DAIRY INDUSTRY

### Key ideas

- Have a look around your community and visit the Dairy Australia website which will showcase that the dairy industry is the heart of many careers. It also supports and is supported by many other services and industries.
- Brainstorm your local community (including employment situation of family and friends) for links to the dairy industry. How significant is the dairy industry in your community?
- Use the internet to make a list of dairy-related services and careers.
- From the various dairy-related careers in your community, list those that appeal to yourselves. What special skills and/or training are required to work in these careers?
- Draw up a 'concept map' showing these industries and services, and how they relate to:
  - 1) the dairy industry, 2) the community, and
  - 3) each other.

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

### ACARA outcomes – Years 5 and 6

**Science** [AC SIS231](#), [AC SIS232](#)

**Mathematics** [AC MSP118](#), [AC MSP148](#)

**Humanities** [AC HASSI102](#), [AC HASSI130](#)

**Technologies/Literacy** [AC TDEP024](#),  
[AC ELY1704/1714](#)

**The Arts** [AC AVAM115](#), [AC AVAM116](#)

### ACARA outcomes – Years 7 and 8

**Science** [AC SIS124](#), [AC SIS139](#)

**Mathematics** [AC MSP169](#), [AC MSP206](#)

**Humanities** [AC HEK020](#), [AC HEK030](#)

**Technologies/Literacy** [AC TDEP035](#),  
[AC ELY1725/1736](#)

**The Arts** [AC AVAM121](#)

### ACARA outcomes – Years 9 and 10

**Science** [AC SIS164](#), [AC SIS198](#)

**Mathematics** [AC MSP228](#), [AC MSP253](#)

**Humanities** [AC HES043](#), [AC HEK055](#)

**Technologies/Literacy** [AC TDEP049](#),  
[AC ELY1746/1756](#)

**The Arts** [AC AVAM126](#), [AC AVAM128](#)

### ACARA outcomes – Year 11

#### Senior secondary curriculum

**English Unit 1** – Create a range of texts:

[AC EEN011-ACEEN017](#), Reflect on their own and others' text by: [AC EEN018-020](#)

**General Mathematics Unit 2** – The statistical investigation process: [AC MGM026](#), Making sense of data relating to a single statistical variable:

[AC MGM027-030](#)

**Science Unit 1** – Biology - Science Inquiry Skills:

[AC SBL001-007](#)

**Science Unit 1 & 2** – Earth & Environmental Science - Science as a Human Endeavour:

[AC SES008-014](#)

Teams can present their research to the class.

## RESEARCH TOPIC 6

# THE FIFTH FOOD GROUP

### Key ideas

- The Australian Dietary Guidelines identify five food groups that are essential for daily diets. The fifth food group is dairy. Dairy is essential to everybody and every day.
- Dairy foods provide a unique package of over 10 essential nutrients with a wide range of benefits. These nutrients are essential for healthy blood, nervous and immune systems, eyesight, muscle and nerve function, healthy skin, energy levels and growth and repair in all parts of your body.
- Research the place of dairy in a 'healthy eating pattern'. Where are dairy products in a 'balanced diet'? How frequently should we eat dairy products and in what quantities? Do these answers vary for different situations?
- Research the importance of regular serves of dairy for teenagers, and for those who are active in sport (sports nutrition). What specific elements of dairy affect human growth and performance (such as calcium for bone density)? What are the dangers of a deficiency of dairy for these people?
- Conduct a minor survey at class or school level to determine whether the importance of dairy nutrition is reflected in the eating habits at your school. Does your school need a strategy to improve its dietary practice – if so can you provide one?

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

### ACARA outcomes – Years 5 and 6

**Science** ACSIS231, ACSIS232

**Mathematics** ACMSP118, ACMSP148

**Humanities** ACHASSI102, ACHASSI130

**Technologies/Literacy** ACTDEK021,  
ACELY1704/1714

**The Arts** ACAVAM115, ACAVAM116

**Health/Physical Education** ACPPS053,  
ACPPS054

### ACARA outcomes – Years 7 and 8

**Science** ACSIS125, ACSIS140

**Mathematics** ACMSP169, ACMSP206

**Humanities** ACHES022, ACHES033

**Technologies/Literacy** ACTDEK033,  
ACELY1725/1736

**The Arts** ACAVAM121

**Health/Physical Education** ACPPS077, ACPPS076

### ACARA outcomes – Years 9 and 10

**Science** ACSIS164, ACSIS198

**Mathematics** ACMSP228, ACMSP253

**Humanities** ACHES045, ACHES057

**Technologies/Literacy** ACTDEK44/45,  
ACELY1746/1756

**The Arts** ACAVAM126, ACAVAM128

**Health/Physical Education** ACPPS095

### ACARA outcomes – Year 11 Senior secondary curriculum

**English Unit 1** – Create a range of texts:

ACEEN011-ACEEN017, Reflect on their own and others' text by: ACEEN018-020

**General Mathematics Unit 2** – The statistical investigation process: ACMGM026, Making sense of data relating to a single statistical variable:

ACMGM027-030

**Science Unit 1** – Biology - Science Inquiry Skills: ACSBL001-007

**Science Unit 1 & 2** – Earth & Environmental Science - Science as a Human Endeavour:

ACSES008-014

Teams can present their research to the class.

## RESEARCH TOPIC 7

# RESEARCHING ANIMAL BEHAVIOURS THROUGH CATTLE HANDLING

### Key ideas

- New technologies have allowed agricultural industries to develop models for 'best practice' - best practice for handling animals, best practice for creating facilities for animals, and best practice for food production. Studying animal behaviours helps lead to new understandings of best practice.
- Having the calves at school creates the opportunity for students to learn about animal behaviour through cattle handling. While monitoring the health and growth of the calves, research the big ideas about best practice when handling cattle, and the links between cattle handling and production.
- As part of your learning, consider the facilities that cattle are housed in, and the conditions necessary for best practice when caring for animals. These facilities could be the dairy, cattle yards, or simply the accommodation you provide the calves at school.
- Using scale diagrams, or by making a 3D model, design an animal production facility such as a dairy, cattle yards or housing for the calves at school.
- You may wish to explain your learning and design.

Teams can present their research to the class.

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

### ACARA outcomes – Years 7 and 8

**Science** ACSIS129, ACSIS144

**Mathematics** ACMSP169, ACMSP206

**Humanities** ACHES022, ACHES033

**Technologies/Literacy** ACTDEP035,  
ACELY1725/1736

**The Arts** ACAVAM121

### ACARA outcomes – Years 9 and 10

**Science** ACSIS164, ACSIS198

**Mathematics** ACMSP228, ACMSP253

**Humanities** ACHES045, ACHES057

**Technologies/Literacy** ACTDEK47,  
ACELY1746/1756

**The Arts** ACAVAM126, ACAVAM128

### ACARA outcomes – Year 11 Senior secondary curriculum

**English Unit 1** – Create a range of texts: ACEEN011-ACEEN017, Reflect on their own and others' text by: ACEEN018-020

**General Mathematics Unit 2** – The statistical investigation process: ACMGM026, Making sense of data relating to a single statistical variable: ACMGM027-030

**Science Unit 1** – Biology - Science Inquiry Skills: ACSBL001-007

**Science Unit 1 & 2** – Earth & Environmental Science - Science as a Human Endeavour: ACSES008-014

## RESEARCH TOPIC 8

# FARM SAFETY

### Key ideas

Dairy farms are special places, as they are usually both a home for the family and a busy workplace.

As a home for the family, issues of health and safety are even more extreme than usual. The dangers associated with big trucks driving up and down the driveway twice a day, heavy machinery, big awkward animals, snakes and electric fences can even bite, are just a few of the safety issues.

All workplaces have rules to ensure worker health and safety is protected, and there are heavy penalties for unsafe work practices.

Health and safety issues related to dairy farms are not limited to but may include:

- vehicles (quad bikes, tractors, milk tankers, general traffic)
- chemicals (along with water and effluent)
- power and electrical (don't touch that electric fence!)
- farm machinery
- working spaces (confined spaces, outside spaces, heights)
- visitors and children.

Investigate farm safety. Present a report on the potential dangers of the dairy farm environment. Recommend guidelines to minimise risks for people who live on, work on, or visit dairy farms. You might be interested to explore the nature, number and seriousness of farm accidents in Australia (many of which involve children on and around tractors and quad bikes).

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

### ACARA outcomes – Years 5 and 6

**Science** ACSIS231, ACSIS232

**Mathematics** ACMSP118, ACMSP148

**Humanities** ACHASSI095, ACHASSI123

**Technologies/Literacy** ACTDEK023,  
ACELY1704/1714

**The Arts** ACAVAM115, ACAVAM116

**Health/Physical Education** ACPPS053/54,  
ACPPS058

### ACARA outcomes – Years 7 and 8

**Science** ACSIS124, ACSIS139

**Mathematics** ACMSP169, ACMSP206

**Humanities** ACHES022, ACHES033

**Technologies/Literacy** ACTDIP032,  
ACELY1725/1736

**The Arts** ACAVAM121

**Health/Physical Education** ACPPS073/077,  
ACPPS078

Teams can present their research to the class.

## ACARA outcomes – Years 9 and 10

**Science** ACSIS164, ACSIS198

**Mathematics** ACMSP228, ACMSP253

**Humanities** ACHES043/55, ACHES045/57

**Technologies/Literacy** ACTDIP043,  
ACELY1746/1756

**The Arts** ACAVAM126, ACAVAM128

**Health/Physical Education** ACPPS096,  
ACPPS098

Teams can present their research to the class.

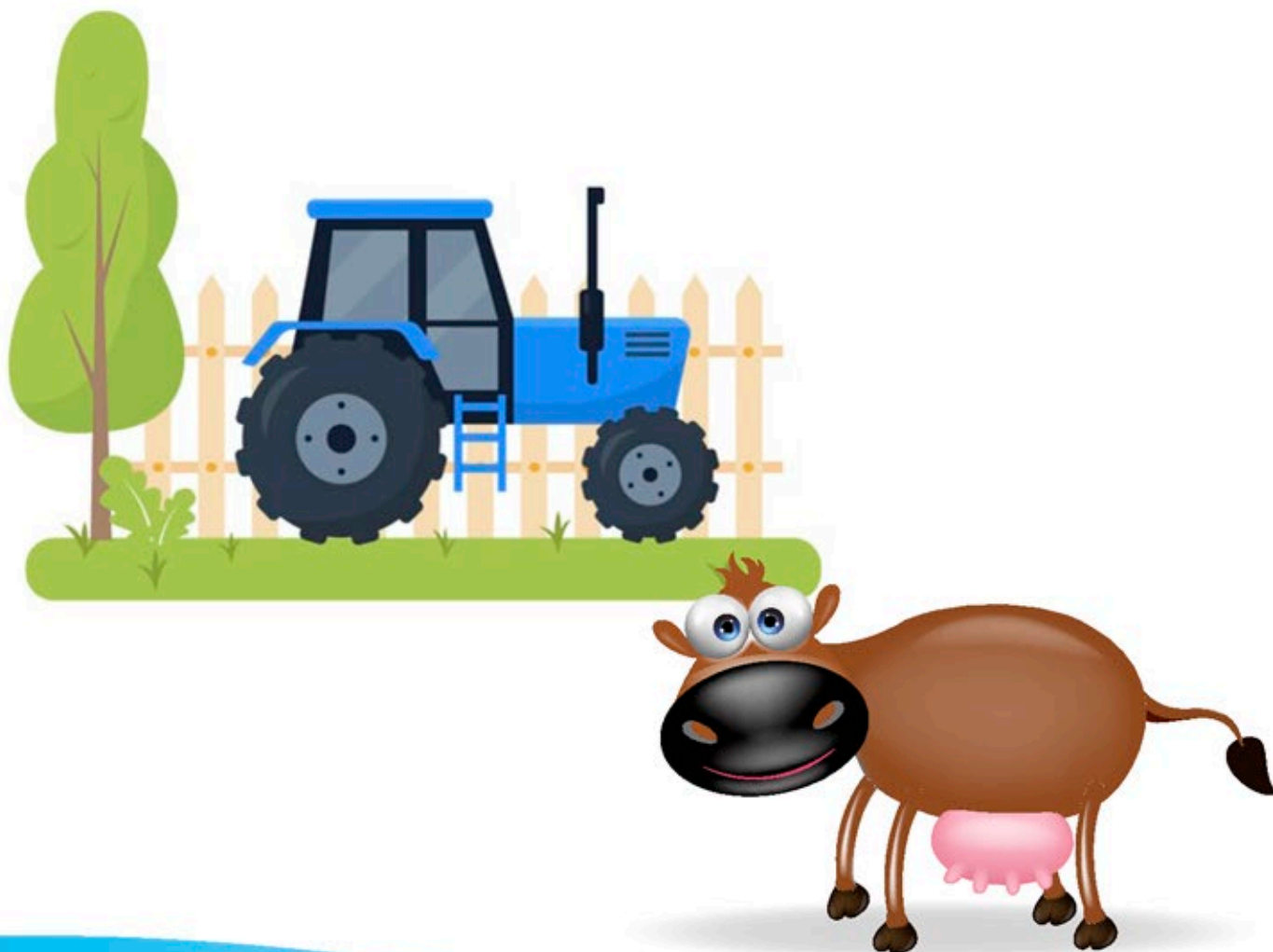
## ACARA outcomes – Year 11 Senior secondary curriculum

**English Unit 1** – Create a range of texts:  
ACEEN011-ACEEN017, Reflect on their own and  
others' text by: ACEEN018-020

**General Mathematics Unit 2** – The statistical  
investigation process: ACMGM026, Making sense  
of data relating to a single statistical variable:  
ACMGM027-030

**Science Unit 1** – Biology - Science Inquiry Skills:  
ACSBL001-007

**Science Unit 1 & 2** – Earth & Environmental  
Science Science as a Human Endeavour:  
ACSES008-014



# 1.2 - MOOTUBE MOOVIE/ POWERPOINT TASK

## Your Mootube moovie/PowerPoint must:

- Run or be timed for 3 minutes (+/-10) seconds.
- Be presented on a file that will run on freely available software (preferably mp4, wmv or ppt).

## Helpful tips

Be sure to read this section carefully before you get started.

- When using cows or calves in your pictures, make sure they are dairy.
- Ensure when you research the internet that your information is from Australia.
- When creating your Mootube keep the messages positive.
- Remember to plan your Mootube thoroughly before you start, this isn't a home video.
- Ensure that there is no background noise interfering with your Mootube ie. wind, rain.
- If you decide to sing a song, make sure you have the words scrolling along the bottom so the viewers don't miss out on all the lyrics.
- Try and keep the Mootube at the same recording volume throughout the moovie.
- Carefully choose your music as the lyrics need to line up with the message.
- The final tip: If you have fun whilst learning, then so will the viewers!

### Statement 1

As a team choose a career in the dairy industry and roleplay this career for the viewers. Be sure to tell the viewers about the education and daily activities required for this career.

Make the viewers laugh; be sure to tell them the fun parts of this job. You only have 3 minutes!

### Statement 2

As a team tell the viewers what you have learned about calf rearing.

Share your personal experiences and stories about the calves; tell us about their feeding regime and personality. Your style here is important and perhaps you should dress up as a media presenter.

Make your Mootube moovie fun and engaging to keep the viewers interested. You only have 3 minutes!

### Statement 3

As a team, tell the viewers why dairy is an important part of your health and nutrition.

Keep your Mootube moovie unique and be sure to make the viewers laugh and remember to have DAIRY in their day. You only have 3 minutes!

### Statement 4

As a team, dress up as scientists and carry out a simple science experiment. Your Mootube moovie explains the methodical thinking and processing that a person is likely to undertake in this career pathway.

Google 'milk experiments' on the internet to help give your team some ideas. You only have 3 minutes!

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

### ACARA outcomes – Years 5 and 6

Literacy [ACELY1707](#), [ACELY1717](#)

Humanities [ACHASSI094](#), [ACHASSI122](#)

Technologies [ACTDEP024](#), [ACTDEP028](#)

The Arts [ACAMAM064](#)

### ACARA outcomes – Years 7 and 8

Literacy [ACELY1728](#), [ACELY1738](#)

Humanities [ACHES022](#), [ACHES033](#)

Technologies [ACTDIP025](#), [ACTDIP026](#)

The Arts [ACAMAM068](#), [ACAMAM069](#)

### ACARA outcomes – Years 9 and 10

Literacy [ACELY1748](#), [ACELY1776](#)

Humanities [ACHES043](#), [ACHES055](#)

Technologies [ACTDIP037](#), [ACDEP049](#)

The Arts [ACAVAM126](#), [ACAVAM128](#)



# 2.1 - LETTER/EMAIL TASK

## Write a letter or send an email of thanks to Jaydee Events Pty Ltd.

As a team, word process a letter or write an email in business format to Jaydee Events Pty Ltd.

The letter/email should talk about your experiences and what you have learned about the dairy industry and your calves. Outline what you have learned from the industry advocate and dairy farmer who visited your school.

Students should address their letter to Jaydee Events Pty Ltd, Mr John Hutchison & Mrs Deanne Kennedy, PO Box 18, LOCH VIC 3945.

Students should send their email addressed to Mr John Hutchison & Mrs Deanne Kennedy to their own email address and copy the text into a word document to submit with other assessments tasks. Don't forget to include your team name and school name as part of the letter/email.

### Letter/email writing tips...

- Create a letter/email to Jaydee Events Pty Ltd that talks about your experiences and what you have learnt from the dairy industry and your calves.
- Outline what you have learnt from the industry advocate and dairy farmer who visited your school. What did they tell you about the calves that you didn't know before?
- Make sure you provide the reader with some scientific information about your calves. What did you feed them? Did they gain weight? If so how much?
- Describe the calves and their personality traits. What are their names? Did you visit the calves to feed them every day or were you part of a roster?
- Tell us some gossip. Did anything funny happen whilst the calves were staying at school?

### Helpful tips...

- The letter/email should be presented in a business style format.
- Use a font that is easy to read eg. Arial or Times New Roman.
- Check the letter/email for spelling and grammar.
- Use proper sentence structure and layout.
- Write clearly, concisely and avoid long sentences.
- Provide meaningful text in the subject field.
- Avoid abbreviations, acronyms and emojis (eg. smiley faces).
- Do not write in CAPITALS.
- Read the letter/email before you send it.

Further details to assist with this task can be found on your memory stick or the A4 sheets inside your *School Resource Kit*.





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

### ACARA outcomes – Years 5 and 6

Literacy ACELY1704, ACELY1714

Humanities ACHASSI101/129

Science ACSIS231, ACSIS232

### ACARA outcomes – Years 7 and 8

Literacy ACELY1725, ACELY1736

Humanities ACHES023, ACHES034

Science ACSIS132/234, ACSIS133/148

### ACARA outcomes – Years 9 and 10

Literacy ACELY1746, ACELY1756

Humanities ACHES044, ACHES056

Science ACSIS164, ACSIS198



# 2.2 - SCIENTIFIC REPORT TASK

**The scientific report should provide a summary of the calves' condition during their time in your care. The report must include data on each calf's growth, feed intake and health status.**

A suggested format for your report writing is 'the scientific method'. The key elements of the scientific method are:

- identification of the problem
- forming a hypothesis
- using deductive reasoning
- data collection and analysis
- deriving a conclusion
- friendly text
- scientific information
- grammar and spelling.

### Scientific report tips...

- Your scientific report must follow some basic rules.
- Your report must have a title and begin with an overview (or abstract).
- Describe and/or explain your method (what you did) and your materials (what you used).
- Next describe and/or explain (what you found). Results should include data and statistics.
- Lastly, describe and/or explain the results. What do the results mean? Include a bibliography.

Further details to assist with the scientific report task can be found on your memory stick or the A4 sheet inside your *School Resource Kit*.

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

### ACARA outcomes – Years 5 and 6

**Literacy** ACELY1704, ACELY1714

**Humanities** ACHASSI101/129

**Science** ASIS231, ASIS232

### ACARA outcomes – Years 7 and 8

**Literacy** ACELY1725, ACELY1736

**Humanities** ACHES023, ACHES034

**Science** ACSIS132/134, ACSIS133/148

### ACARA outcomes – Years 9 and 10

**Literacy** ACELY1746, ACELY1756

**Humanities** ACHES044, ACHES056

**Science** ACSIS164, ACSIS198

# 3 - CREATIVE PHOTO TASK

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

Take a creative photo of 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.

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

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

**ACARA outcomes – Years 5 and 6**

The Arts [ACAVAM116](#)

**ACARA outcomes – Years 7 and 8**

The Arts [ACAMAM069](#)



**ACARA outcomes – Years 9 and 10**

The 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.**

Remember to answer the questions independently.

Submit your student evaluation data using these links:

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

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

# 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

- Mootube moovie/PowerPoint task OR  3D model task
- Letter/email task to Jaydee Events Pty Ltd OR  Scientific report task
- Creative photo task
- 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)

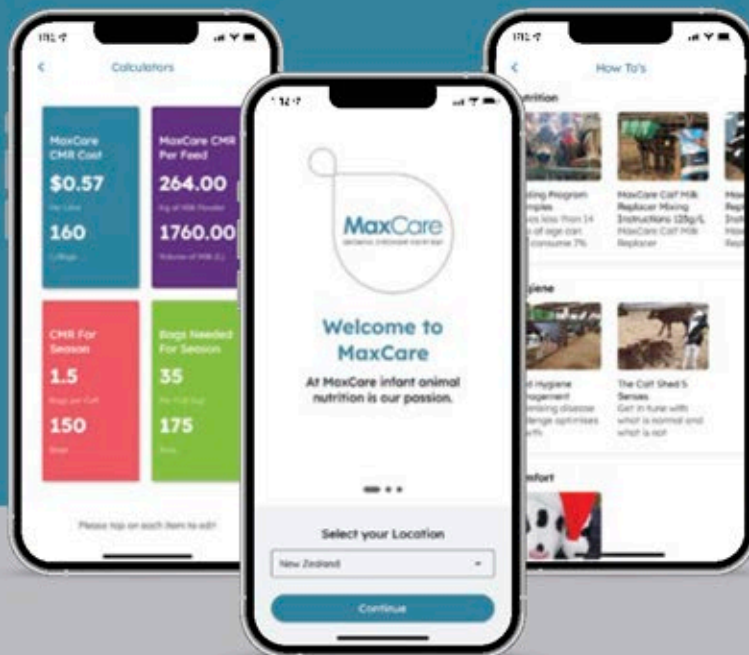
**E** [admin@jaydee.net.au](mailto:admin@jaydee.net.au)

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

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