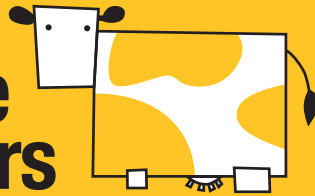
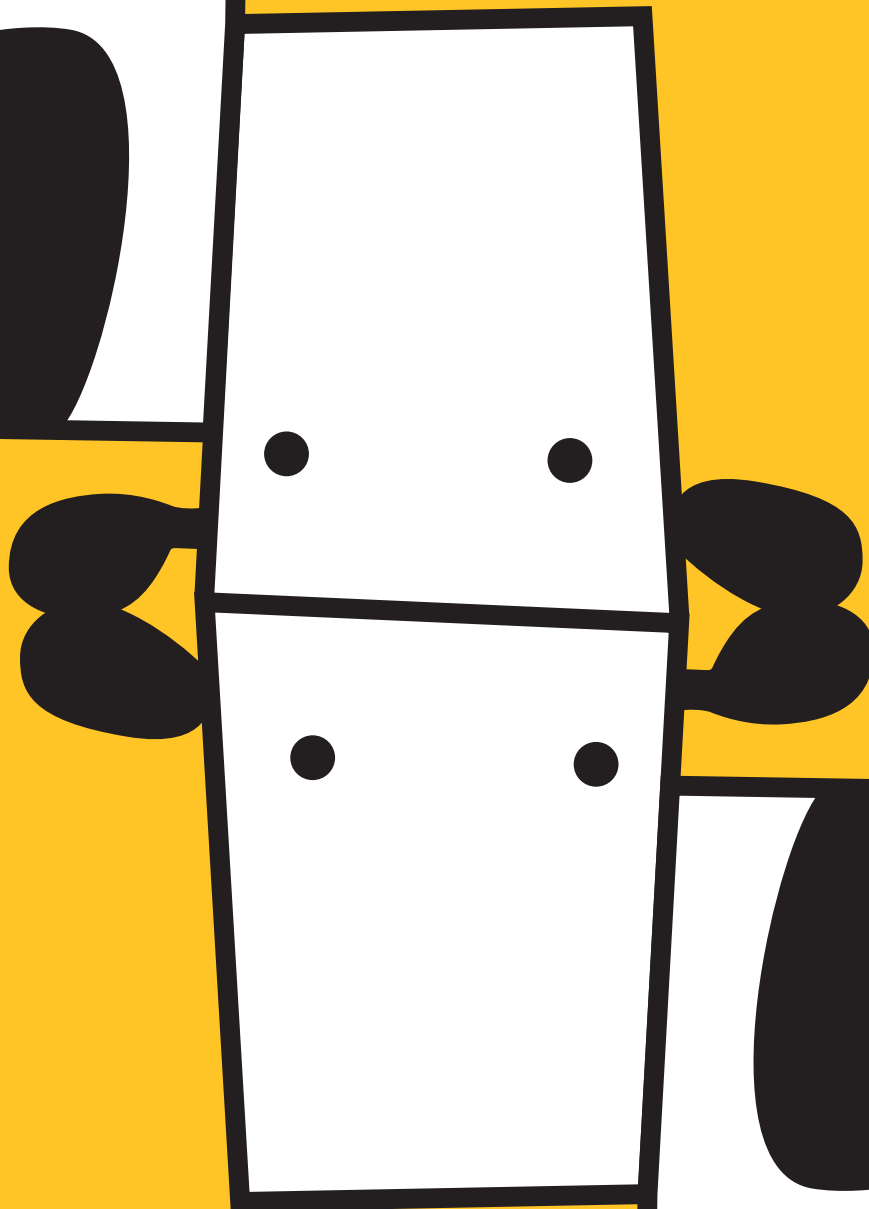


Cows
**create
careers**



**Dairy
Australia**

CAMEMBERT IN THE CLASSROOM MODULE



**Teacher &
Year 9 - 11
Student
Handbook**

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Contact Details:

Cows Create Careers – Farm Module
Dairy Australia - National Project Co-ordinators
John Hutchison & Deanne Kennedy
Jaydee Events Pty Ltd
A: PO Box 18, LOCH 3945 P: 03 5659 4219
M: 0412 368 739 (John) & 0419 878 055 (Deanne)
E: admin@jaydee.net.au

Introduction

Cows Create Careers - Camembert in the Classroom module is an opportunity from Dairy Australia to provide quality learning for teachers and students in senior secondary levels.



Camembert in the Classroom is a complete curriculum package that begins with a whole-day quality professional learning opportunity for teachers and support teachers.

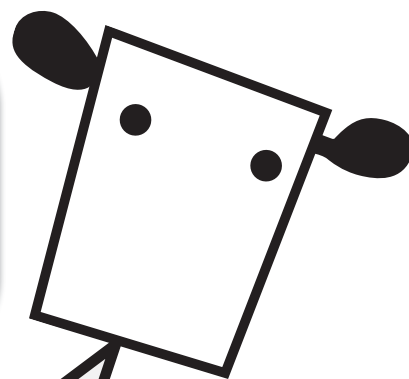
Students will be involved in making their own cheese, researching the marketplace and creating a 60-second multimedia advertisement.

The module will culminate with a 'Big Day Out' presentation day where student products are assessed by independent judges, including Russell Smith, Deputy Chief Judge of the Australian Grand Dairy Awards.

The Camembert in the Classroom curriculum is designed to provide opportunities for rich, engaging, open-ended learning based on the developing ACARA curriculum, Food and Technology (VCE), and Economics (VELS). The project is designed to be run with a Science focus, a Food and Technology focus, an Economics focus, or as an integrated unit for classes that are not subject-specific. It's up to you!

How To Register My Interest?

The opportunity to be involved in the Cows Create Careers - Camembert in the Classroom module is limited. The placements will be offered on a 'first in, best dressed basis'.



Please register your interest by sending an email to:

Dairy Australia's Project Managers:

Jaydee Events Pty Ltd

E: admin@jaydee.net.au

P: 03 5659 4219



Project Outline

Making Camembert Cheese in the Classroom

- Two teachers/representatives from each school will attend the whole-day Teacher Workshop (see page 7 for details). This could be one classroom teacher and a laboratory assistant.
- Teachers present Cows Create Careers - Camembert in the Classroom to Science, Food and Technology or Economics classes (upper secondary level). This involves making and maturing camembert cheese in the classroom, researching the marketplace, and creating a 60-second multimedia advertisement.
- Teachers will need a minimum of 4 hours with the students to make the camembert cheese in the classroom.
- Cheeses will be presented for judging at a regional 'Big Day Out' presentation day.
- Russell Smith will visit at least one school in each region for audit purposes. After this visit Russell will provide the other schools in that region with a summary of the learnings from that day.
- A school prize will be presented at the 'Big Day Out' presentation day for the winning cheese for each region (\$500).
- A project judging rubric has been provided at the back of this handbook to ensure teachers and students are clear about the expectations.

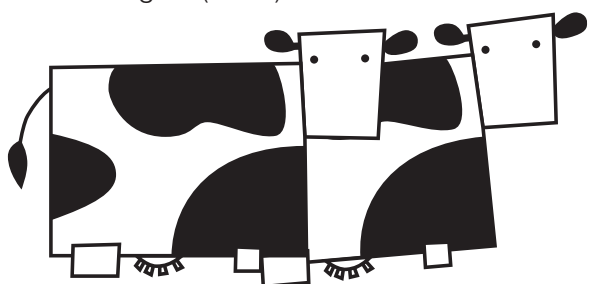
Creating the 60-second Multimedia Advertisement

- The focus of the 60-second multimedia advertisement is, '*Why Dairy is an Important Part of Our Diet*'. From an economics perspective, advertisements should show evidence of knowledge and strategies for selling and marketing, who the intended market is, and where dairy exists in the market place (for example milks, cheeses, ice-creams, yogurts, creams, milk shakes). Focusing on your camembert in the advertisement is optional but it can be fun!
- Multimedia advertisements will be assessed on creativity, delivery and content and will have a 15-second verbal introduction and a 60-second multimedia advertisement.
- Schools will select their 'best' four 60-second multimedia advertisements which will be presented by students to a panel of judges at the 'Big Day Out'.
- A school prize will be presented at the 'Big Day Out' presentation day for the winning multimedia advertisement for each region (\$250).
- A project judging rubric has been provided at the back of this handbook to ensure teachers and students are clear about the expectations.

'Big Day Out' Presentation Day

A 'Big Day Out' presentation day will be held at the conclusion of the project. The day will start at 10.00am and conclude after lunch at 1.00pm. Lunch will be provided to all who attend.

School prizes will be presented at the 'Big Day Out' presentation day for the winning cheese for each region (\$500) and the winning advertisements for each region (\$250).



Assessment Summary



Immerse yourself in Cows Create Careers by submitting the following tasks. This will allow you to be in the running for school and / or team prizes and awards for your region. Don't forget to name your team and label your Camembert Cheese!

HERE'S HOW IT WORKS

For easy identification think of one name for your team and your Camembert Cheese then take a picture of your team with your cheese. A CCC memory stick has been provided to your teacher to save your assessment work.

STUDENTS – Years 9 - 11

Students in Teams of 2 - 3 will submit the following work for assessment:

- **60-second Multimedia Advertisement (page 3)**
 - Submit a multimedia advertisement on 'Why Dairy is an Important Part of our Diet'. Your presentation and advertisement should consist of a 15 second verbal introduction and a 60 second multimedia advertisement.
- **Take a Funny Photo of your Team with your Camembert Cheese**
 - Submit a fun and creative photo of your Team with your Camembert Cheese as a jpg file.
- **Student Evaluation (Entry & Exit) Forms (page 9)**
 - Submit your Student Evaluation Forms either as a hard copy or use the Survey Monkey link.
- **Final Team Checklist (page 12)**
 - What have you submitted? Please ensure that your team completes this form.

TEACHERS

Teachers are able to gain points towards the school prize by submitting the following:

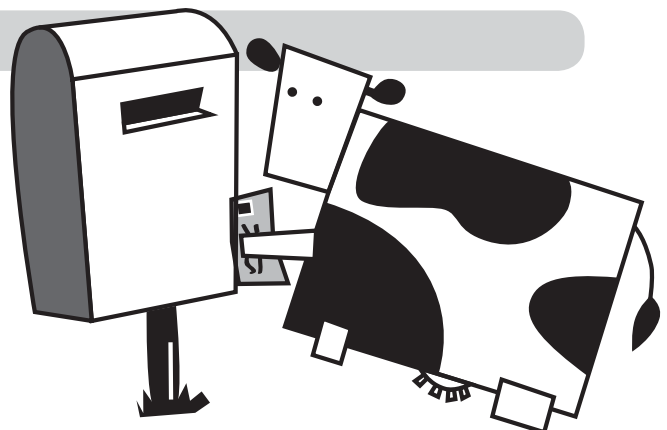
- **Cheese Making Date**
- **pH Levels of Cheese**
- **Food Safety Plan Paperwork**
- **Photo of Cheese prior to Wrapping**
- **Teacher Evaluation Form**

NOTE: For further details please refer to pages 11 & 12 of this handbook.

MAIL ASSESSMENT WORK TO:

**Cows Create Careers,
PO Box 18,
LOCH VIC 3945**

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



CURRICULUM

1. The Teacher Workshop – Upskilling Teachers

The teacher workshop is a whole-day workshop (six hours) with a maximum of eight participants working in pairs (pairs from the same school, such as a Science teacher with a Humanities teacher or laboratory assistant). The sessions that make up the workshop are: Introduction and Cheese Making Theory; Practical, Hands-on Cheese Making, and Completion of the Cheese Making; Cleanup and Reflection.

2. A Curriculum Model of a Model Curriculum (21st Century)

The Camembert in the Classroom curriculum model is based on the developing ACARA curriculum, VCAA curriculum for VCE (Food and Technology), and VELS for level 6 (Economics).

In short, key ACARA ideas for Science/Technology focus on: Science understanding; Science inquiry skills and Science as human endeavour; links to research, design, crafts, engineering, manufacturing, finance, management, labour, marketing and maintenance; engagement of students in meaningful ways so that they can function effectively in a scientifically and technologically advanced society.

In short, key VCE ideas for Food and Technology focus on: food safety and properties of food; planning and preparation of food; food preparation, processing and food controls; and food product development and emerging trends.

In short, key VELS ideas for Economics focus on: analyse vocational pathways; consider the role of enterprise and innovation; analyse the role of markets and governments in the production of goods and services.

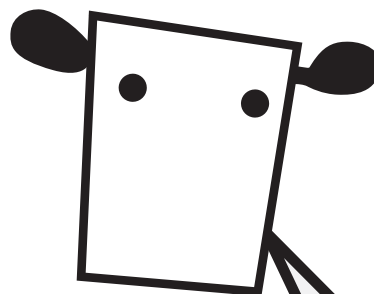
3. High Excitement – Engaging Students in Dynamic, Innovative, Relevant Learning

A common concern for teachers at Senior Secondary level is the conflict between a desire to provide a relevant and immersive integrated curriculum while constrained by time and assessment requirements of a single discipline.

The major aim of Camembert in the Classroom is to provide a complete curriculum package guaranteed to engage teachers and students in a shared learning experience to be enjoyed and valued by all. The Economics teacher can focus on the marketing side of the project, while recognising its Science and Technology elements, the Food and Technology teacher can focus on Food and Technology, while recognising elements of Science and English, and so on.

4. Multiple Forms of Assessment

The Camembert in the Classroom judging rubric caters for oral reporting, production work, multimedia presentation, and media analysis.



*Cows Create Careers
Camembert in the Classroom
provides strong support for
teachers in four main areas*

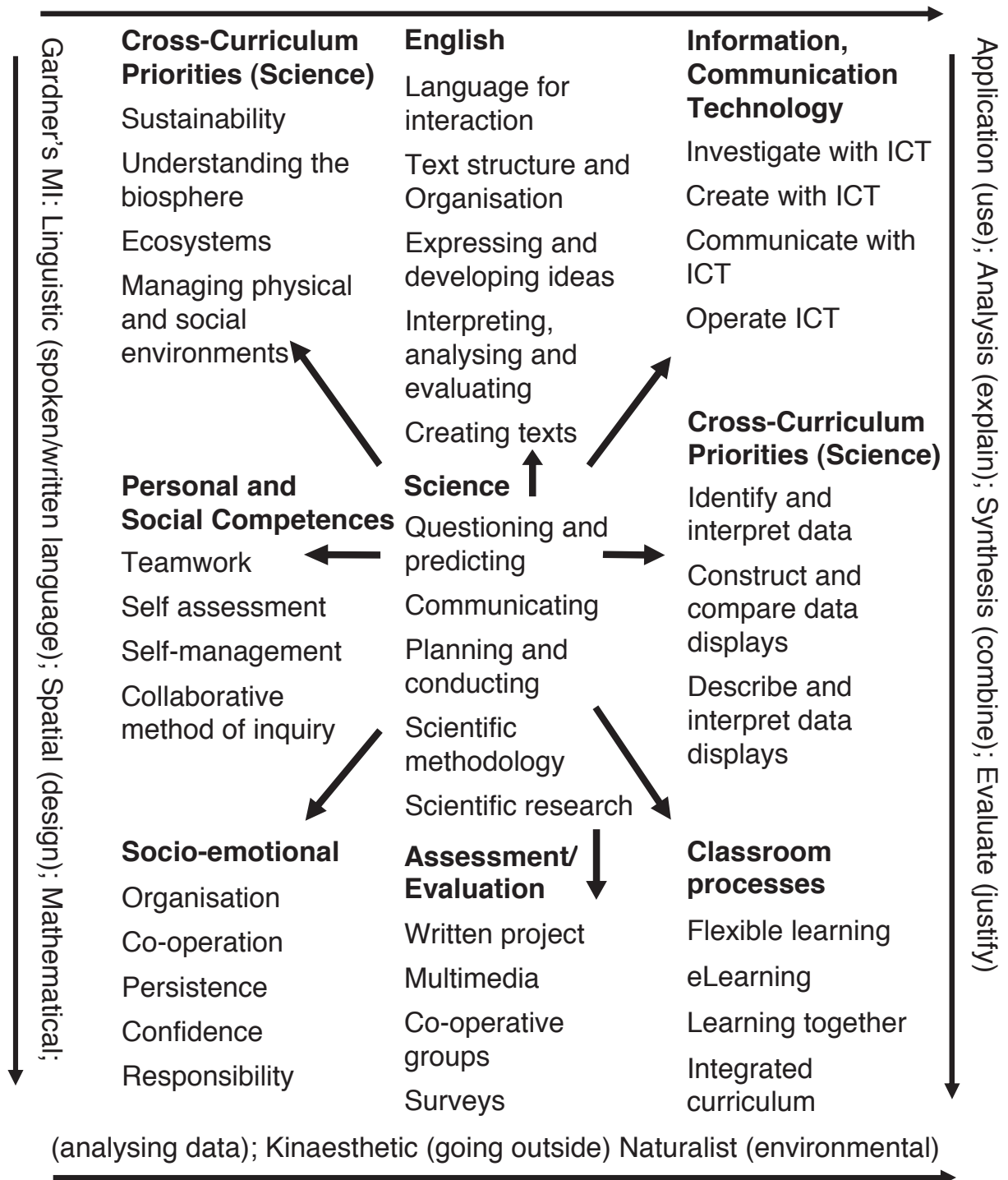


Cheesy grins all 'round!

Curriculum Connections

Cows Create Careers - Camembert in the Classroom uses as a model the developing ACARA curriculum, and the VCAA (VELS) curriculum for Biology, Food and Technology, and Economics.

Thinking levels (bloom): Knowledge (facts); Comprehension (understanding)



Presenting Russell Smith...

Cows Create Careers – Camembert in the Classroom presenter and cheese judge is Russell Smith, Deputy Chief Judge of the Australian Grand Dairy Awards.

Russell first presented Camembert in the Classroom at the 2010 Royal Queensland Food and Wine Show.

For the first student-made cheese class at the 2010 RQFWS, a camembert-style cheese was chosen because it is relatively easy to make, and goes through a range of very visual transformations in the 6 or so weeks it takes to mature.

From past experience, he believes that students will quickly come to treat their cheeses like pets, building a close relationship with the gently fermenting milk as it matures into velvety goodness. So that year, for the first teachers' workshops, Russell had to do a lot of testing in his shed to create a recipe that's 'fail-proof.'

The Cows Create Careers – Camembert in the Classroom curriculum is designed to provide opportunities for rich, engaging, open-ended learning based on the developing ACARA curriculum, Food and Technology (VCE), and Economics (VELS). The project is designed be run with a Science focus, a Food and Technology focus, an Economics focus, or as an integrated unit for classes that are not subject-specific. It's up to you!

To Russell, a believer that cheese making is as much an art as a science, the 2010 RQFWS experience resulted in extremely positive feedback from teachers, especially in relation to the hands-on nature of the workshop, and the capacity of the project to integrate the practical side of food science and good nutrition with the school curriculum.

Visit the following link to view more: <http://www.youtube.com/watch?v=UoCR5hVHiKA>



Russell Smith:
A: PO Box 3081,
Bemboka NSW 2550
M: 0413 010 400
E: r.smith@apex.net.au

Russell's Whole-Day Teacher Workshop typically includes the following:

Each workshop will have a maximum of 4 schools (8 teachers/laboratory assistants) working in pairs. Each participant will take home a cheese to mature over 6 - 7 weeks. All equipment and materials will be provided for the cheese making.

8:30 am Introduction and Cheese Making Theory

- The starter culture used
- The chemistry of the process involved
- The expected outcomes

9:30 am Practical, Hands-on Cheese Making Session

- Discussion of the maturation process that takes place over the following 6 – 7 weeks
- Particular emphasis will be placed on the cleaning and hygiene standards required during the entire cheese making process

1:00 pm Lunch provided for participants

1:30 pm Completion of the Cheese Making, Cleanup and Reflection

- Each participant will be supplied with a cheese hoop and maturing container so they can mature the cheese made at the workshop
- Detailed notes will be supplied on the recipes used and the cheese making process, as well as the requirements for maturing the cheese
- Equipment requirements for the classroom will be discussed. Most equipment needed can be found in school labs with just a few specialist items required.
- **Online support** will be provided during the maturing process.

3.30 pm Workshop Concludes

Equipment List for Cheese Making in School

Is there a cost involved?

The Cows Create Careers - Camembert in the Classroom project will require each school to pay \$100 (plus GST) for equipment and consumables for two participants to attend the teacher workshop. Participants will **keep the equipment** after the workshop which then can then be used when teaching the students.

The project will require schools to have the following equipment and consumables to make your camembert cheese. Many of the non-consumables listed below you **may already have** in your classroom.

The equipment listed is for 4 work stations (8 - 12 students)

Non Consumables

1. Sanitising bath (to hold 70 - 80 litres) requires around a 100 litre capacity container - (\$25)
2. Cheese vats (to hold 4 or more litres of milk) - (4 x \$10 = \$40)
3. Water bath (to maintain milk temperature) - (4 x \$15 = \$60)
4. Slotted spoons - (4 x \$3 = \$12)
5. Spatulas - (4 x \$7 = \$28)
6. Thermometers - (2 x \$25 = \$50)
7. Small measuring containers for bulk starter and rennet (40 - 50ml) - (4 x \$1 = \$4)
8. Syringes (1ml) - (4 x 25c = \$1)
9. Jug or saucepan to boil water to sterilise rennet utensils (in house)
10. Stirrers (eg. non slotted egg flip) - (4 x \$3 = \$12)
11. Camembert hoops - (8 x \$6.60 = \$52.80)
12. Timer - (4 x \$15 = \$60)
13. Maturing containers such as Décor containers supplied by Cheeselinks or similar - (8 x \$10 = \$80)

TOTAL = \$424.80

Consumables

14. Hand sanitiser (alcohol based) - (4 x \$5 = \$20)
15. Cool boiled water for rennet (in house)
16. UHT milk to make liquid starter - (2 x \$2 = \$4)
17. Wrappers for cheese - (\$25)
18. Bleach to make up sanitiser for surfaces and equipment - (\$3)
19. Unhomogenised milk - (16L @ \$3 = \$48)
20. Rennet - (\$8)
21. Starter cultures - (\$36)
22. Penicillium candidum - (\$20)
23. Calcium Solution 50% - (\$4)
24. Salt for brining - (\$4)
25. pH test paper - (\$60)
26. Chux large for turning cheese - (\$5)
27. Disposable gloves - (\$8)

TOTAL = \$245.00

Note: If a school has access to a fridge that can be used for maturing the cheeses for 6 - 7 weeks then it is strongly advised to purchase a thermostat (\$120) to control the fridge temperature to the exact temperature. These are available online at www.grainandgrape.com.au and other brewers suppliers.

Protective Clothing: 1. Aprons 2. Hairnets and caps. 3. Covered footwear.

Any specialist cheese making equipment on this list can be purchased from:
CHEESELINKS: www.cheeselinks.com.au or 03 5283 1396

Student Evaluation Forms (Entry & Exit)

The Entry Survey is to be completed prior to the project commencement and Exit Survey on completion of the project. These surveys can be completed using our Survey Monkey link or by photocopying this survey form for all the members of your team. The Survey Monkey link will be emailed to your teacher for distribution.



Entry Survey (Please circle)

STUDENT NAME _____ BIRTH DATE _____

TEAM / CHEESE NAME _____ YEAR LEVEL _____

SCHOOL NAME _____

Please answer the following questions, along the scale of 1 to 5, where 1 is strongly disagree (SD) and 5 is strongly agree (SA).

	SD					SA
I know a lot about careers pathways in dairy manufacturing	1	2	3	4	5	
I think that the process of 'cheese making' involves science	1	2	3	4	5	
Dairy foods like milk, cheese and yogurt are good for my health and nutrition	1	2	3	4	5	
I will tell my parents about the Cows Create Careers project	1	2	3	4	5	
I would be interested in a career in cheese making, food technology or dairy manufacturing						YES / NO
How many serves of dairy do you have per day?						
1 serve 2 serves 3 serves 4 serves More						

The following represents **three** serves of dairy (40g cheese, 200g tub yogurt, 250ml glass of milk)



Exit Survey (Please circle)

STUDENT NAME _____ BIRTH DATE _____

TEAM / CHEESE NAME _____ YEAR LEVEL _____

SCHOOL NAME _____

Please answer the following questions, along the scale of 1 to 5, where 1 is strongly disagree (SD) and 5 is strongly agree (SA).

	SD					SA
I know a lot about careers pathways in dairy manufacturing	1	2	3	4	5	
I think that the process of 'cheese making' involves science	1	2	3	4	5	
Dairy foods like milk, cheese and yogurt are good for my health and nutrition	1	2	3	4	5	
I will tell my parents about the Cows Create Careers project	1	2	3	4	5	
I would be interested in a career in cheese making, food technology or dairy manufacturing						YES / NO
How many serves of dairy do you have per day?						
1 serve 2 serves 3 serves 4 serves More						

The following represents **three** serves of dairy (40g cheese, 200g tub yogurt, 250ml glass of milk)

Teacher Evaluation Form

The Exit Survey is to be completed on completion of the project. This survey can be completed using our Survey Monkey link or by photocopying this survey form. The Survey Monkey link will be emailed to you directly.



Exit Survey (Please circle)

TEACHER NAME _____

SCHOOL NAME _____

Has the Cows Create Careers – Camembert in the Classroom project been implemented as part of the school curriculum? YES / NO

If yes, what subject? _____

Please tell us about your overall satisfaction with your participation in the Cows Create Careers – Camembert in the Classroom project.

Poor Good Very Good Excellent

As a result of this program, please identify the key outcomes for your students

To what extent does the Cows Create Careers - Camembert in the Classroom curriculum package support what you are trying to achieve? Would you recommend any changes to the module?

What information could be added at the start of the program that would have improved the program's success?

Given a similar dairy industry program, would you be involved next year? YES / NO
Comments _____

Please answer the following questions, along the scale of 1 to 5, where 1 is strongly disagree (SD) and 5 is strongly agree (SA). SD SA

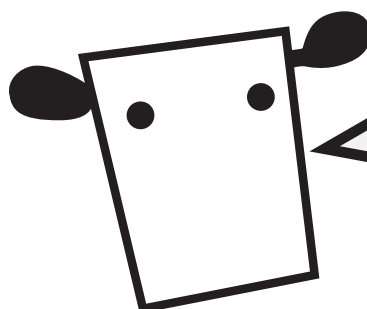
I know a lot about the manufacture of camembert cheese	1	2	3	4	5
I know a lot about career pathways in dairy manufacturing	1	2	3	4	5
I think that the process of 'cheese making' involves science	1	2	3	4	5
Dairy foods like milk, cheese and yogurt are good for my health and nutrition	1	2	3	4	5

If this project has been covered in a school bulletin or newsletter could you please specify the name of the bulletin or newsletter and the month that it appeared?

Do you know of any students who have been motivated to explore the dairy manufacturing industry due to the Cows Create Careers project? YES / NO

If yes, in what way? _____

Project Judging Rubric

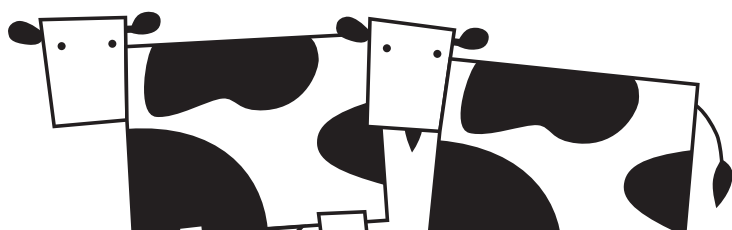


This is the official judging sheet for Cows Create Careers Camembert in the Classroom. Please ensure that all your paperwork and assessment information is lodged in time.

CCC judged at the 'Big Day Out' Presentation Day

Product	Description	Maximum	Score
CAMEMBERT JUDGING			
Teacher Information and Student Evaluation	Teachers report back on the following milestones: 1. Cheese Making Date 2. pH Levels of Cheese 3. Photo of Cheese Entries prior to Wrapping 4. Food Safety Plan Paperwork 5. Teacher and Student Evaluation Forms	50	
Camembert Cheese	Judged by Russell Smith at the 'Big Day Out' Presentation Day	50	
TOTAL		100	

MULTI-MEDIA ADVERTISEMENT			
Creativity	How unique and creative was the commercial? Was the commercial technically clever? Criteria: <i>1 - 5 Technically basic with minimum creativity.</i> <i>6 - 10 Engaging, creative and technically clever.</i>	10	
Delivery	How well was the commercial presented by the student/s? Criteria: <i>1 - 5 Unprepared and doubtful about their advertisement.</i> <i>6 - 10 Prepared, proud and positive about showcasing their advertisement.</i>	10	
Content	Was the commercial good and the information relevant? Criteria: <i>1 - 5 Content average, elements not relevant to the Australian dairy industry.</i> <i>6 - 10 Content excellent, well chosen and relevant to the Australian dairy industry.</i>	10	
TOTAL		30	



The Final Team Check

Photocopy this as a checklist for your team and submit with your work to:

**Cows Create Careers,
PO Box 18, LOCH 3945**

**Have you
submitted
everything?**



TEAM NAME: _____

STUDENT NAMES: (for certificates, please write neatly!)

Has your team submitted the following work?

Please save your team's work on the CCC memory stick with your team name as the file name. This way we can separate your work from other class members' work.

Please circle what your team has submitted:

- 60-second Multimedia Advertisement.
- A Funny Photo of your Team with your Camembert Cheese.
- Student Evaluation Forms (Hard Copy / Survey Monkey link).

Remind your teachers to submit the following:

- Cheese Making Date.
- pH Levels of Cheese.
- Photo of your Cheese Entries prior to Wrapping.
- Food Safety Plan Paperwork.
- Teacher Evaluation Form.

NOTE: Even if your team has not completed all the components of the work, it makes it easier if you circle the relevant response. Then the assessors know what has been submitted!

Contact Details:

Cows Create Careers – Farm Module
Dairy Australia - National Project Co-ordinators
John Hutchison & Deanne Kennedy
Jaydee Events Pty Ltd
A: PO Box 18, LOCH 3945 P: 03 5659 4219
M: 0412 368 739 (John) & 0419 878 055 (Deanne)
E: admin@jaydee.net.au



Dairy Australia is the national services body for the Australian dairy industry. Our role is to build a sustainable and internationally competitive industry and to provide solutions that help farmers adapt to an ever-changing operating environment.

The industry-owned corporation acts as the collective investment arm of the dairy industry, investing in essential research, development, extension and industry services that individual farmers and dairy companies could not efficiently undertake themselves.

Find out more at www.dairyaustralia.com.au.

www.dairyaustralia.com.au

Dairy Australia, Level 5, IBM Centre,
60 City Road, Southbank, Victoria, 3006
Tel: 03 9694 3777

