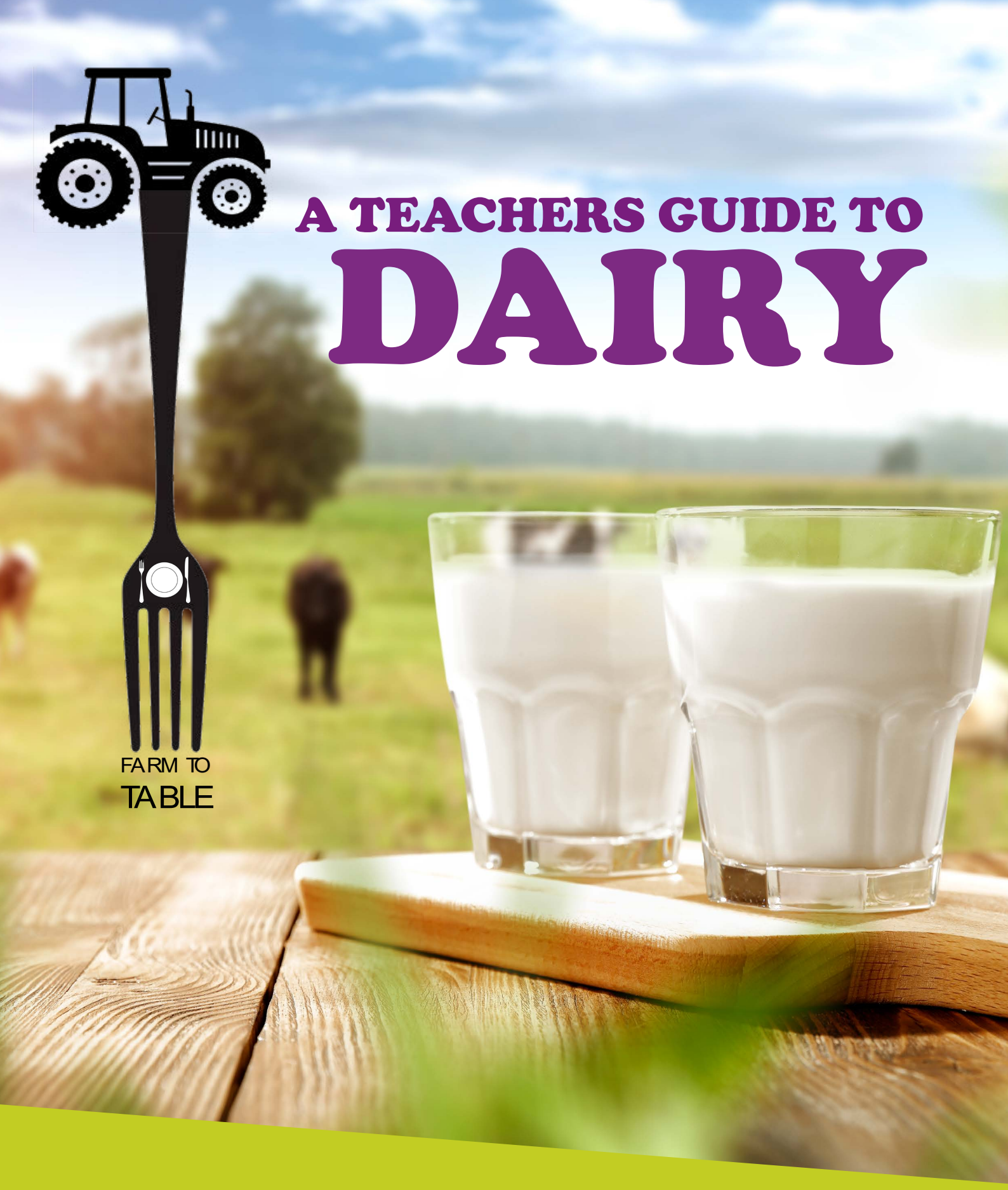

A TEACHERS GUIDE TO DAIRY

FARM TO TABLE

Royal Agricultural Society of NSW

RAS edu

CONTENTS

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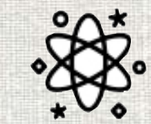


SCIENCE

TECHNOLOGY

ENGINEERING

MATHS

EVALUATE

EXPERIMENT

BRAINSTORM

RESEARCH

INTRODUCTION

The Royal Agricultural Society of NSW recognises that due to an increasingly urbanised population, most students do not have direct links to farms and food production systems, and as such their understanding of these may be limited. The RAS is committed to addressing some of the disconnect that exists between producers and consumers, and food-related issues, through its education programs.

The Farm to Table - Dairy program has been developed and involves three phases:

1. Pre-incursion learning for students, using suggested resources contained in this package.

2. The Dairy Incursion

3. Post-incursion learning for students, using suggested resources contained in this package.

It is recommended that teachers plan early for the incursion and use of the suggested resources and deliver these in the fortnight either side of the incursion itself, to maximise effectiveness of the learning experience. Teachers have the flexibility to select the material most relevant to their students and adapt materials as they see fit. Participation in the program is not mandatory, but is strongly encouraged.

We welcome feedback in an effort to continually improve our resources to ensure they are as useful as possible for teachers and students. You will find a feedback form in this package. We trust you will find the Farm to Table program to be a valuable learning experience. For further advice please make contact with the education team.

For incursion logistics and support please contact

education@rasnsw.com.au

9704 1147

Technology Mandatory Years 7-8

Outcomes:
TE4-1DP, TE4-2DP, TE4-3DP, TE4-5AG, TE4-6FO and TE4-10TS

ACTDEK029, ACTDEK032, ACTDEK033

ACTDIP027, ACTDIP031, ACTDIP025, ACTDIP026

ACTDEP038, ACTDEP036, ACTDEP039

TEACHER BACKGROUND: SUGGESTED RESOURCES

The RASNSW Schools Program Research Links

http://www.rasnsw.com.au/globalassets/document-library/rasnsw/education/primary-resources/printable-resources/agriculture_research_links.pdf

Fast Facts about Australian Agriculture

http://archibullprize.com.au/industry-snapshots/dairy.html

The NSW Department of Primary Industries Performance, Data and Insights 2017

ACTDEK029
ACTDIP025

This is a great resource to incorporate Math's into your Agricultural Programs and examples of displaying data in graphs.

https://www.dpi.nsw.gov.au/about-us/publications/pdi/2017

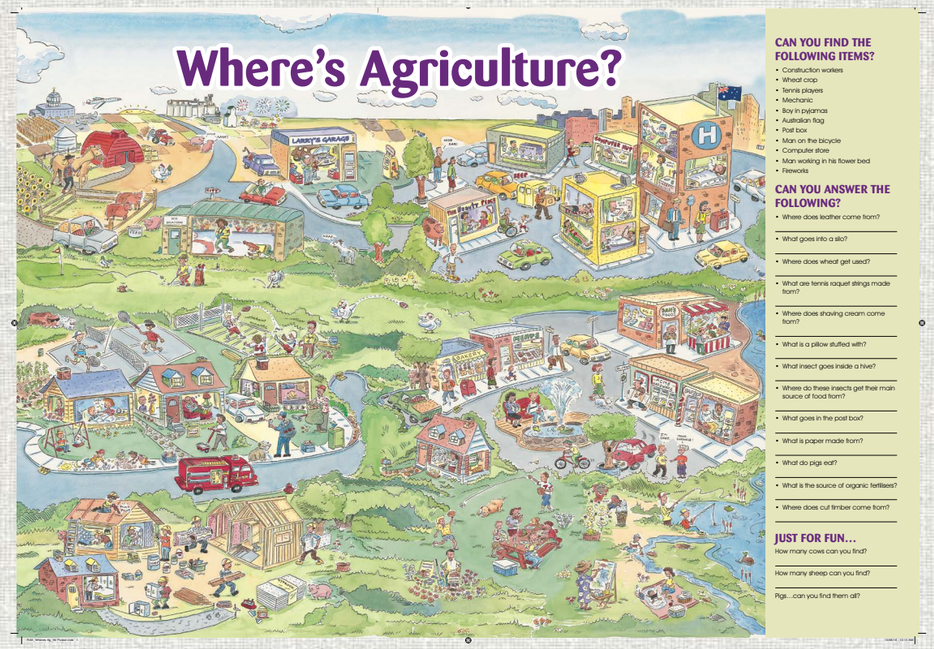
PRE-INCURSION LEARNING

What do we know and use that comes from a farm?

Familiarisation of what they interact with in their everyday lives that comes from a farm

Ask students to identify where agriculture affects them in their every day lives

See link to RAS website with resource below:



Familiarise students with the Glossary of terms used in the Farm to Table .

Teachers may choose to look at the Glossary as a specific focus and ask students to further explore words used in the context of Agriculture and add to this Glossary or teachers may choose to integrate the words and meanings in their project learning themes.

ACTDEK029
TEA-2DP

Glossary of Key Terms

Agronomist	A person that helps farmers make production decisions to maximise crop quantity and quality, and minimise damage to the natural resources (e.g. soil, air, water)
Auctioneer	A person that sells livestock using the auction method, in a similar way to a house auction.
Combine/Harvester	A machine that harvests crops. The name comes from the combining of three different processes in one operation (reaping, threshing and winnowing). The grain heads are cut, seeds loosened from their husks and then the chaff and grain separated.
Crop	Plants grown for agricultural production e.g. a wheat crop
Electronic scanning	The example used in the show is an electronic ear tag that is read by waving a reader in front of it - a bit like scanning a barcode at the supermarket.
Grain trader	A person that sells grain (hopefully when the market price is high)
Harvest	The gathering of crops from paddocks/plots at the end of the plants growing season.
Calving	When a cow (mother) is giving birth. Can also refer to a period of time that the herd in general is expected to be giving birth e.g. some dairies mate their cows to all give birth in the same 4 weeks of January
Butterfat	This is a quality measure for milk. It refers to the percentage of the milk that is butterfat. Usually milk with atleast 3.2% butterfat is desirable for processors to purchase. An easy way for students to relate to this concept is to talk about how cream floats to the top of un-homogenised milk when stored in a container and this is collected to make butter, ice-cream, sour cream and thickened cream products.
Mob	A group of cattle, also known as a herd
Farm hand	A general worker on a farm - responsible for feeding cows, moving irrigators, setting up fences and sowing crops, amongst other jobs
Milker	A person who milks the cows using a mechanical set of cups that simulate a calf sucking action, to extract the milk from the cow's teats (rather than hand milking of times past)
Smart farming	A term used to describe the use of technologies in decision making or production, with the ultimate aim of increasing profit (and minimising damage to the environment).
Stock	Livestock (e.g. cattle, sheep, goats, pigs).
Stock agent	A person that brokers between buyers and sellers of livestock
Wool classer	A person who assesses the quality of each fleece as it is shorn in the shearing shed, so that similar wools can be grouped together
Yield	The amount of product / $ obtained from a specified area of land

What do we already understand about people involved in food production?

Who are farmers?

- Ask students to describe food and fibre producers (farmers) and what they do.

(Alternatively a set of descriptors could be used e.g. farmers are: old-fashioned/technology savvy, clean/dirty, smart, poor/wealthy, hard-working, friendly etc. Ask each student to vote with a yes/no response, then add the data collected to create graphs).

ACTDIP026 TE4-5AG

ACTDIP025

Discuss other jobs that are associated with food production

- Research jobs in Ag in The Land or on the Careers Harvest websites

http://www.theland.com.au/

http://www.careerharvest.com.au and see if you can find examples.

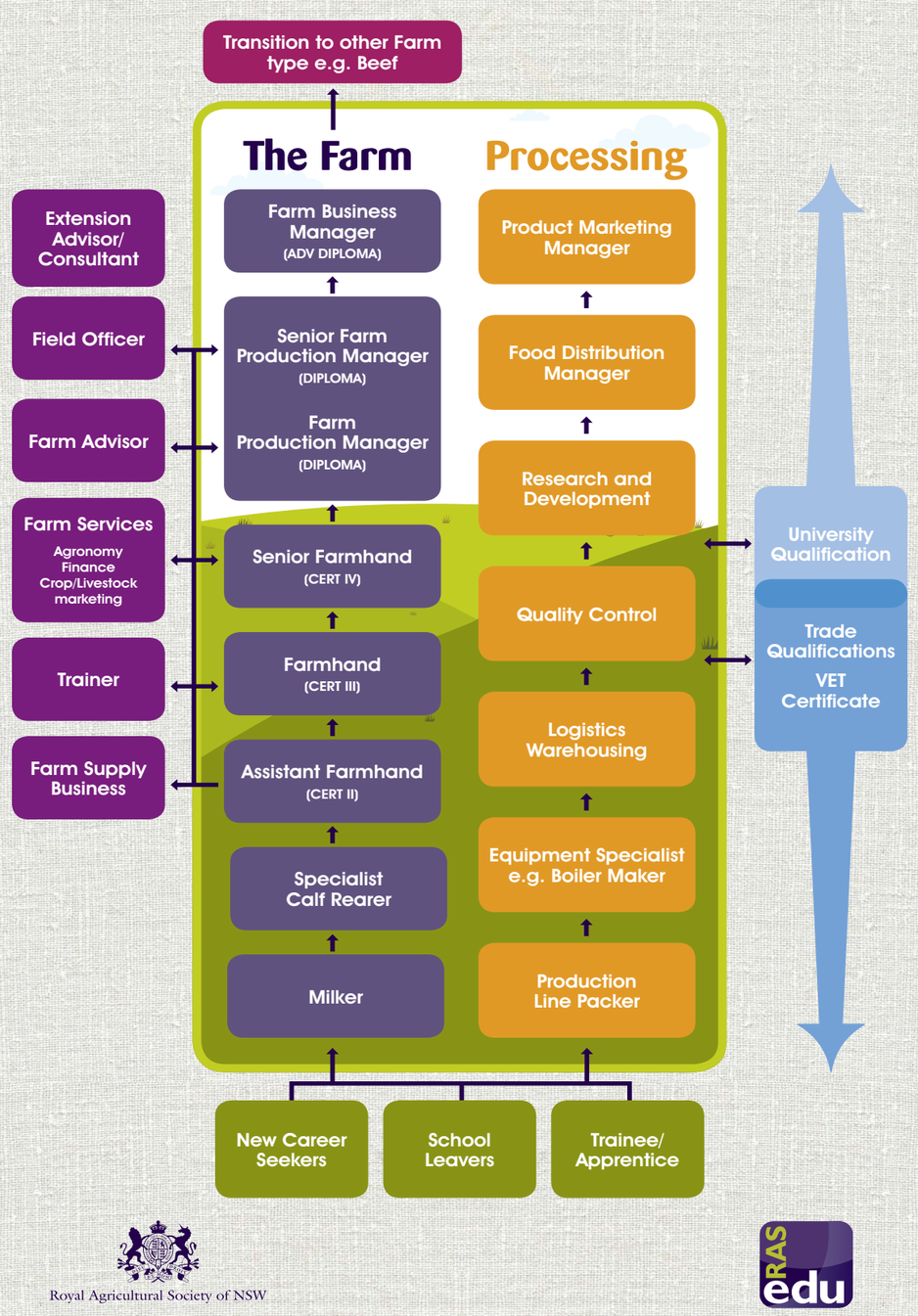
Producer to Consumer

- Choose a food product from an Australian farm and see if students can sequence the jobs in a supply chain between producer and consumer.

See Career Stepping Stones

ACTDEK032 TE4-5AG

STEPPING STONES INTO AND OUT OF DAIRY



Royal Agricultural Society of NSW

Man vs. Machine

In the Dairy Incursion, the farmer milks his cow by hand. On a commercial scale, cows are milked by machines and increasingly emerging technologies are used such as robotic equipment . Robotic milking (also known as automatic milking) helps to address one of the biggest problems for dairy farms - finding labour to complete the work.

Why do you think it would be hard to find people to be dairy hands? Students design a snap poll as to what 5 people think about this question

Answers may include - dirty work, repetitive, have to be physically fit, cows are generally milked twice a day so that means early starts and a late finish

Careers in the Agricultural Industry

Farms are made up of interacting elements like plants, animals, soils and the environment. These are all managed by people. All things being equal,a farm is often as productive as the skilled people who run and work on the farm.

Design a survey that could be used to find out what are the skills suited to an agricultural career.

ACTDEK032 TE4-10TS

What types of questions would you ask?

Useful resources for this theme:

- www.agrifoodcareers.com.au/youth_video.php?id=15

When did farming come to Australia, how does it look now and what will it be like in the future?

It is important to reiterate to students that farmers are food and /or fibre producers. After all, everyone eats food, and that's why our producers are so important!

- Students learn from inquiry based learning. Posing a question stimulates lines of inquiry
- See the Agriculture Mindmap
- What did farming look like 200 years ago?
- Research two inventions that Australian farmers have invented? Like the stump jump plough or strains of drought resistant wheat

ACTDEK029 ACTDEK032

Animal Production in Australia

Do you know your boars from your barrows?

- Familiarise students with the different names for types and classes of farm animals. Do students know some domesticated farm animals have male, female and castrated names?
- Students could research different farm animals e.g. numbers and distribution in Australia and or New South Wales, life cycles, uses, introduction into Australia: when/why/how they were introduced and products made from that animal.

Research Task:

What animal products are consumed locally and what are Australia's highest agricultural exports, where are they made and where do they go ? Find what Australian exports go to South East Asia

Use these links:

http://www.nff.org.au/farm-facts.html
https://www.dairyaustralia.com.au/industry/farm-facts/dairy-at-a-glance

ACTDEK029 ACTDEK029

Plant Production in Australia

- Students research the type and distribution of different plant production in Australia (or NSW) and explore the relationship between climate and plant type and when/why/how they were introduced and products that are made from that plant.
- What parts of a plant do we eat? ACTDEK032 ACTDEK029
- Students fill in the table on the following link: http://www.csu.edu.au/faculty/science/herbarium/Supermarket%20Botany/SMB-EHGCspeciesTable.pdf
- Students could research the different types of plants used for animal fodder, their seasonality and the diet of a Dairy Cow over a 12 month cycle.

ACTDEK039 ST

Students could design and conduct a class/school community survey based on food consumed, knowledge of farming that produces food for us to eat, or any other ideas generated by the students. Surveys can be conducted either individually or as a class. They could then collect and present the results, and suggest improvements to either the survey design, or the surveying process.

Some topic ideas: ACTDIP026 CT ST

1. What's your favourite dessert?
2. For milk products, students could investigate which milk products come from cows. Eg. Almond milk, soy milk as compared to A2 milk , lactose free milk, or full cream milk.
3. Ask students to bring in some food packaging. Critically analyse the packaging, look at the materials used and why the manufacturer might have used this type of material. Discuss the shape of the container and why this is conducive to storage or managing product quality

ACTDEK039 DT ST

Categorise packaging products, for example: TE4-6FO

- Based on the raw product
- Based on where they were produced
- Based on their nutritional value
- Based on how often they eat it
- Based on their cost/kg

DURING THE INCURSION

Students listen, watch, record via digital images and interview presenters

The aim of the incursion program is to give students a hands-on experience with Agriculture in safe and familiar surroundings

The Hand Wash

Familiarise students with expected hygiene procedures and behaviour when handling animals to ensure the animal interactions are as safe and positive as possible during the incursion to ensure the animal interactions are as safe and positive as possible on incursion day.

Presenter Interview

Create a list of questions and write on cards to be distributed to students to ask presenters during the incursion.

Questions about the presenter's personal history.
For example: When and how did you first become interested in farming? How long have you been on the farm? Does anyone else have questions about the presenter's farm.

For example: Why did you choose your farm?
What are the benefits/issues about farming in your area? What do you do with the farm when you go on holidays? What is special about your farm?

Questions about farming style.
For example: What makes a good farmer? Are there different things you want to do on your farm? Is there something you don't like about the type of farming you do? How does your daily routine change with the seasons?

Questions about their farming industry/s.
For example: What is one of the issues in your industry? Are there enough young people in your industry to keep it growing? What needs to improve/change in your industry to help feed and clothe our growing population? Are you worried about Climate Change?

ACTDEK032

TE4-25AG

POST INCURSION

The following pages contain suggested discussion points, activities and resources based on the themes presented in the Farm to Table presentation.

Teachers can select the most relevant to their learning programs, or use multiple themes.

Themes:

1. Farm to Table

2. What Happens on a Farm?

3. Are All Farms the Same?

4. What Animals are on a Farm?

5. Who Eats NSW Farm Produce?

6. EXTENSION: Farming Management

7. EXTENSION: Biosecurity

EXPLORING THEME: Farm to Table

Farmers use a combination of subjective and objective measurements to know when their products are ready for market. Even in the classroom we have subjective and objective measurement.

- For example, a rain gauge is an example of an objective measurement, whilst animal behaviour is subjective as it is a personal assessment - and may vary between people.

As consumers, it is important to remember that the quality of agricultural products is largely determined by the season it experienced whilst it was growing.

- For example, it may have been drier than usual, wetter than usual, more pests than usual, or rained at an unusual time… all of which can be measured objectively and may have impacted its quality as perceived by the consumer.

ACTDIP025 ACTDIP026

Weather: Good or Bad?
It depends on what activities are happening on a farm. How does weather and climate affect what is being done?

- Research three examples.

For effective food production, rain needs to fall in the right amount, in the right place, at the right time! In Sydney, the Mediterranean climate has rainfall usually occurring more in winter. In cities, sometimes we can get annoyed when it rains - forgetting that our food production depends on it!

TE4-1DP

Suggested Activities:

Ask students to record the temperature, rainfall and humidity for a 14 day period outside their classroom.

ACTDIP028

http://www.bom.gov.au/climate/

Ask students to research what would be sufficient daily/weekly rainfall in a pasture based farm.

ACTDEK032 TE4-3DP

Ask students to brainstorm what farmers do to maintain consistency in availability of water to plants and animals on the farm

ACTDEK032 TE4-3DP

Storing food products - How a food product is stored affects it's shelf life in terms of quality, time until spoilage, impact on products it is stored with. For one food product of a student's choice- list the parameters that need to be taken into consideration during storage and outline why these are important. Test this theory with milk storage

Farmers make food, do we use it wisely? Design a solution to sustainably deal with waste food from your family.

http://www.foodwise.com.au/foodwaste/food-waste-fast-facts/

TE4-1DP

Support Training

Teacher Professional Development:

Transforming Milk Into Camembert TE4-1DP TE4-6FD

If you would like to learn how to make cheese contact education@rasnsw.com.au OR follow the below link:

http://www.rasnsw.com.au/events/secondary-teacher-professional-development

Case Study

Research how a company makes use of products that were previously thrown out (because of consumer perceptions about quality)

http://ozharvest.org/what-we-do

How can we sustainably use all parts of an animal? TE4-6FD

Use the below resource:

EXPLORING THEME:
What Happens on a Farm?

How does this compare with a list of the timing of your daily activities?

Luke mentions a number of tasks that need doing daily, some weekly,
some monthly and others yearly. List what each of these might be and give reasons why they are done at these intervals?

Fill in the worksheet

What's it like Living on a Dairy Farm?

Research Link:

http://www.legendairy.com.au/dairy-farming/our-farming/a-day-on-the-farm

In farming, a crop is the name given for an area of a specific plant grown in a paddock e.g. An oats crop, a Lucerne crop etc. "Rotating the crops" is a term given to the different crops planted in successive seasons.

See worksheet on crop rotation- link
• Make a Venn diagram comparing the needs of plants, animals and people.

ACTDEK032 ACTDEK039 TE4-5AG

EXPLORING THEME:
Are all Farms the Same?

In the Farm to Table incursion, the Farmer talks about his love of country life

Ask students to compare city and country life in terms of interactions with the surrounding environment.

- Prompts could include types of plants and animals, types of jobs, access to services, size of towns, variety of landscapes-hilly versus flat land, proximity to rivers or drier areas that rely only on rainfall, travelling distances etc.

Ask students what types of farms there are in NSW.

What is life like for people living in rural Australia?

www.aifs.gov.au/institute/pubs/factssheets/2011/fs201103.html

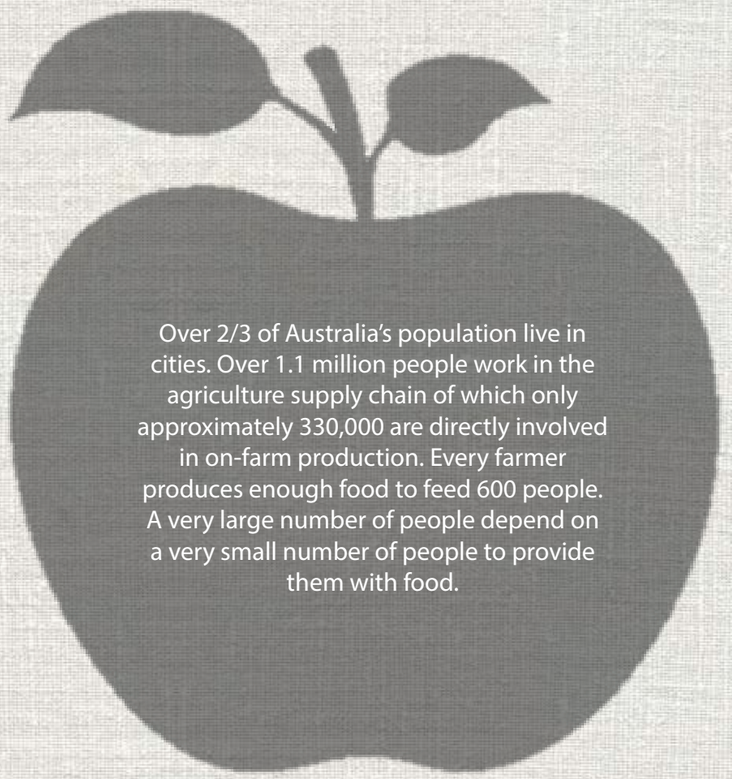
Students could locate some towns on a map that would have different types of farms
The exercise could be extended to compare different locations in terms of:
- farms that produce animals and /or plants
- climate

ACTDEP038

ACTDEP027

ACTDEP031

ACTDEP036



EXPLORING THEME: What Animals are on a Farm?

Students brainstorm the types of animals on farms including both native as well as introduced from insects to mammals, and birds.

Students list which living things add value to a farming enterprise and make a secondary list that hinder farm production.

There are many different types of cattle breeds. Every breed is different and has various uses. There are THREE main types of cattle. Research 4 breeds for each type below:

The three types are as follows:

- Dairy cattle
- Beef cattle
- Dual purpose cattle ACTDEK032

How do Dairy Farms Operate?

Start by looking at this website:

http://www.dairy.edu.au/discoverdairy/learning-resources/background-information/t21-a-day-on-the-farm

Students are to research ONE disease that cows or calves can get, what are the symptoms, treatment and prevention. ACTDEP039

https://www.dpi.nsw.gov.au/animals-and-livestock/beef-cattle/health-and-disease

Students should look at how cattle is handled. To investihgate cattle yards and handling equipment visit the following website:

https://www.dpi.nsw.gov.au/animals-and-livestock/beef-cattle/equip

Animal welfare in schools: ACTDEK032

https://education.nsw.gov.au/policy-library/policies/animal-welfare-policy-schools

For ONE technology or innovation in the dairy industry, research how it impacts on animals and/or the environment. Collect an article on the technology and then write a brief summary

ACTDEP036 TE4-10TS

EXPLORING THEME: Who eats NSW Farm Produce?

Nutritional Value of Milk

Is milk a good source of protein and can dairy products be part of a healthy diet?

TE4-6F0

http://www.legendairy.com.au/dairy-foods/dairy-products/milk/nutrition-information

Food Miles

How many kilometres does food travel from a farm to you? TE4-2DP

Ask the students to google Camden (where the farmers live) and calculate the distance from Camden to the Country Valley Milk processing plant. Then calculate the distance from Country Valley to their nearest supermarket.

http://www.countryvalley.com.au/

Suggested Resource:

http://www.rasnsw.com.au/education/education-resources/primary-schools/produce-to-product-dairy/

Buying Choices and Supporting NSW Producers

In the incursion, the dairy farmer says he uses NSW produced hay for his cows.

- Discuss ways that consumers can support agricultural production in their own state.
- Does the ability to buy local change throughout the year?
- What advantage would there be for the consumer in buying local?
- How would buying local affect the state economy?
- Can you think of any advantages in buying food produced in other states or countries?
- Design a survey to determine what the top three factors are for consumers purchasing a particular product. Is country of origin important?
- Design a logo for a food product (non dairy) using a logo building app

EXPLORING THEME: Farming Management

Prior to settlement, Australia consisted of only native plants and animals.
Many of the plant and animal pests that are now problems were accidentally or deliberately introduced in the early years of Australian settlement.

History of Agriculture

History of agriculture in Australia ACTDEK032 TE4-1DP

https://www.belgennyfarm.com.au/history/site-history/agricultural-timeline

Find pictures to represent each period of time and construct a timeline

Smart Farming Technologies

Make a table showing two examples of currently available 'smart farming' technologies. TE4-10TS

Indicate in this table:

- Who would use them and where would they be used by?
- How they make tasks easier or more efficient.
- What issues could develop as a result of using the technologies.

Some examples:

1. Electronic ear tags are used by Luke and Jess. Electronic ear tags help identify an individual animal and can store production data - so in effect animals are walking around with a computer chip in their ear.

2. The Farmer uses an iPhone to market (or sell) vealers online. This means it gives greater control on when and how much they sell the produce for - enabling them to budget more effectively.

3. Using a FarmBot how could this technology be applied to a broad acre dairy farm

4. What ways do you think technology could aid a dairy farmer in his/her day to day activites or yearly planning?

Efficiency and Cutting Costs

GPS is a common feature of modern farming enterprises. They can be used with other systems to accurately plant, fertilise, spray and harvest crops. The benefit of using technologies such as these is that it maximises efficiency.
For example, focusing production on more fertile land and reducing chemical use and improving environmental outcomes by more targeted application of pesticides and fertilisers.

How farmers use technology to boost efficiency and cut production costs can be seen in these videos:

1. Farm technology - how this boosts farm production ACTDEK037

https://www.csiro.au/en/Research/AF/Areas/Digital-agriculture

2. Automatic Milking Systems (Robotic Milking)

https://www.dpi.nsw.gov.au/animals-and-livestock/dairy/robotic-milking-systems

Risky Business!

Start by watching the following:

www.youtube.com/watch?v=kIMGdeEhllQ&feature=youtu.be

There are many things that can go wrong in farming. In fact, it is probably one of the riskiest businesses to be involved with as it is so dependent on the weather (which we have no control over). In Farm to Table, Luke talks about the uncertainty of having enough money to pay the bills each month.

- Make a list of some of the things that could go wrong on a farm

Try to link each risk with a cause and an effect. Think about how the problems may have a social impact as well as a financial impact (e.g. how would farmers and their families feel)?

- How could small towns be affected in a bad season? TE4-5AG

- As a class design and make a board game that reiterates that plant and animal production is a world full of risks and opportunities.
  For example: Positive events could include things like bumper crops, high prices, positive environmental outcomes, building community relationships.
  Negative events could involve things like adverse weather, destruction or loss of production by pests, low prices, poor quality, low yields, high bank interest rates.

EXPLORING THEME: Biosecurity

Biosecurity - its in the name

"Bio" refers to life and living things. It is from the Greek word "bios".

Can you think of any other "bio" words?
Biography, biology, biodiversity, bioaccumulation!

What is the difference between the words "introduction"," establishment" and "spread" in relation to pests and disease?

Can students list any plant or animal pests?

Note: Plant pests include weeds, insects, or diseases.

Hint: Ask them to think of their home garden, the school garden or local oval. Find out what your pets are treated for or vaccinated against.

"Security" refers to protection from risk or danger.
The word originates from the latin language in the 1400s!
Can you think of any synonyms for the word "security"?

'Biosecurity' is therefore the protection of living things from some sort of risk or danger. For food production systems (where plants and animals are produced to make food), biosecurity generally refers to practices that help reduce the likelihood of pests and diseases being introduced, established, or spread.

What are some possible ways that pests and diseases could be introduced into food production systems, or spread between places? Hint: Wind, water, shoes, vehicles, animals.

Weed Seeds!

Investigate some features of weed seeds and how they aid in dispersal.
E.g. Weeds that use wing dispersal often have wings or parachute-type structures.
Weeds can also use water transport and are designed to float, or in the case of animal dispersal the seeds might have structures such as hooks or spines.

Use your engineering skills and design a weed seed that uses wind, water, or animals for transport.

Animal and Plant Pests

Research a common plant pest and/or a common animal pest, including details of how and when it was introduced into Australia.

Resources that might help:

- www.depi.vic.gov.au/agriculture-and-food/pests-diseases-and-weeds/pest-insects-and-mites/redlegged-earth-mite
- www.pestsmart.org.au
- www.weeds.org.au/weedident.htm

The MyPest guide app developed by the Department of Agriculture and Food could be used to identify plant pests in the school garden.

Students could design a website alerting farmers about a pest that their local area currently faces and what they can do together to help control or eradicate it

Impact of Pests and Diseases

ACTDEK032
TE4-1DP

TE4-2DP
TE4-3DP

Pests and diseases have impacts on our environment, economy and community.

Why is it important to protect the environment, the economy and the community from pests and diseases?

Zoonoses (plural) are animal diseases that can be transmitted to humans.
'Zoonosis' comes from the Greek words zoon (animal) and osis (ill).

Which types of people would be most at risk of contracting a zoonosis?
E.g people working closely with animals, such as farmers, abattoir workers, shearers, vets and people with low immunity.
Some examples of zoonoses:

- Ross River virus
- Q Fever
- Tetanus

TE4-5AG

More information here :
www.csiro.au/en/Research/BF/Areas/Protecting-Animal-and-Human-Health/Zoonotic-capability

How Can We Minimise Cross Contamination?

Prevention is better than cure!

Risks of human infection can be substantially reduced through some simple strategies.

How can the chance of cross-infection from animals be minimised?

Exploration topics include – suggest vaccinating animals, worming animals, cleaning animal housing, having a hand washing routine after contact with animals and before eating.

How do farmers let others they supply their animals to know their animals are healthy and free from disease?

Animal Health Declarations
These are used by owners of livestock who are showing their animals and entering them in competitions. An animal health declaration is basically a checklist that can be used to determine the level of biosecurity risk. This includes an animal health status at the time of movement.

See here for a biosecurity checklist for cattle owners, exhibitors and service providers:

- Each animal must be clearly identified.
- The details of the properties the animals are leaving from and going back to need to be included.
- The owner declares the animals are in good health and behaving normally, and that equipment that has come into contact with cattle has been cleaned and disinfected.

Whilst biosecurity practices can't rule out a pest or disease outbreak altogether, the risk can be minimised by precautions by owners, transporters and venue organisers.
It also means that if details are recorded that animal movements can be traced and then any possible problem can be isolated more effectively to limit spread.

Biosecurity at State Borders and Airports
Travelling to NSW from other states – what stock are limited to movement between states and why?

Research one of the pests that threaten animal industries in Australia.
www.quarantinedomestic.gov.au/pests-diseases.html#Anchor1

ACTDIP025 TE4-5AG

DESIGN BRIEF

Design Situation

Students are to design a new milk product that will appeal to the 12-18 year old customer.

Determine what limitations will affect your development:
- Money
- Time
- Market Share

Ask students to brainstorm their understanding of the design brief.

Investigation and Research

Studying the problem, collecting information, gathering ideas, identifying what needs to be learnt in order to undertake the task.

1. Thinking of ideas
2. Making suggestions
3. Sketching ideas

ACTDEK033 TE4-1DP

Research what types of milk there are OR are available commercially.
http://www.legendairy.com.au/dairy-foods/dairy-products/milk/types-of-milk

List what milk beverages can you think of?
http://www.legendairy.com.au/dairy-foods/dairy-products/milk/using-milk

Development

What does the term 'Target Market' mean?

Identify target markets associated with milk production:
- What is meant by the word 'consumer'?
- What is market research?

TE4-2DP

Describe the benefits of targeting a market in the advertisement of food products.
- How does it assist in the development of food products?
- How does advertising benefit consumer markets?

Ask students to explain what is meant by the below statement?
- "Marketing is about persuading consumers to buy a product. It convinces consumers they need the product."

Ask students to list products they have been interested in buying because of advertising campaigns.

Individual Research Task

Students are to conduct a consumer survey of 20 people that outlines:
- The person's age
- Cultural backgound
- Food allergies
- The dairy products they currently consume
- What brands do they currently remember
- Are there specific reasons why they use these products

ACTDEP039
TE4-3DP

Design, research and develop packaging ideas packaging and volume size.

What types of milk based drinks would a 12-18 year olds like? ACTDEK033

What volume should these products be sold in? TE4-6FO

Do they have a preference for the type of packaging the product could be sold in?

How much do they think these products should be sold for?

Logo Design

Logos are designed to be simple images that can be easily recognised by consumers to identify company brands with company products. Take for example McDonalds, their company Logo is a Large Golden Yellow M. It is one of the most recognisable logos in the world.

Students should make a collage of logos of dairy products for inspiration.

Ask students what will be their product and company name be?

Students will need to design a simple logo. It could be an image, a symbol or even your company name. The key to a good logo is that it is easy to look at and it links with your product.

LOGOS INCLUDE:

- One or two bold colours
- Easily recognisable image, symbol or company name
- Stylised writing
- Complete product design renders

ACTDEP038
ACTDEP027
ACTDEP031
TE4-1DP
TE4-2DP
TE4-3DP

Consumer Marketing and Promotion

Students can design a powerpoint/ pressi/ imovie to promote their milk product. Remember the powerpoint is to educate people about their choice of product.

The powerpoint needs to have at least 6 slides. Include the following:

- Health benefits with milk consumption
- Varieties of milk available from this company
- Ethics of how cattle are looked after on the farm
- Benefits of the milk produced by a plant/animal of your choice

Student Report

After following the above program, students can be assessed by their design report.

Report Details:

- Conduct a consumer survey to determine current market trends ACTDEK038
- Collate survey results ACTDEP025
- Design 2 potential products, including the recipes ACTDEK037
- Cost product ingredients
- Conduct food development trials in Food Technology classrooms ACTDEK037
- Conduct student blind fold taste test of 2 trial products ACTDEK037
- Submit collated results
- Research and develop packaging ideas and volume size
- Design and produce a logo for the new product including a list of ingredients and nutritional information
- Design a CAD for packaging the new product
- Ask students to complete Self Evaluation Survey