AMPC

AUSTRALIAN MEAT PROCESSOR CORPORATION

From Paddock to Plate.

The essential ingredient.

A Year 5 & 6 Educational Resource for Schools

Acknowledgements

This online curriculum-linked resource was produced by the Australian Meat Processing Corporation (AMPC).

The curriculum-linked resource is designed to introduce young people to the production and processing of red meat in Australia.

The materials in this educational resource have been developed by Angela Colliver from Angela Colliver Consulting Services, Pty., Ltd.

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All links to websites were accessed in January 2017. As content of the websites used in this unit is updated or moved, hyperlinks may not always function.

Contents

Introduction

The aim of this online curriculum-linked educational resource is to help teachers and students in primary schools investigate and understand more about the Australian red meat processing industry.

The objectives of the educational resource are to:

- Support AMPC and its members in expanding awareness about the red meat processing industry in Australia by engaging and informing teachers and students about the role and importance of the industry in the Australian economy, environment and wider community.
- Engage and inform teachers and students regarding state-of-the-art processing facilities and best practice red meat production.
- Provide resources which help build leadership skills among teachers and students so they can communicate about red meat production and the industry in Australia.
- Increase knowledge and understanding about the complexity and innovative nature of Australia's red meat processing industry.
- Provide encouragement, information and practical teaching advice that supports teachers to educate their students about red meat production processes and the red meat processing industry.
- Educate school students about innovation and environmentally sustainable practices implemented in the red meat processing industry.
- Expand awareness of the broad range of career pathways available through the red meat processing industry and broader supply chain.
- Develop engaging learning programs using an inquiry process and Project Based Learning (PBL) approach aligned with the Australian Curriculum.

These online curriculum-linked educational resources provide practical support for teachers and students learning about food and fibre production and primary industries in schools.

The Learning Process in this Unit

This educational resource is a unit of work that uses an inquiry-based and integrated approach to learning. It is also student-centred and interactive.

It makes extensive use of the student's existing knowledge, questions and investigations. It uses a teaching and learning model based on the current philosophy that scientific knowledge is a social construction, highlighting how people's ideas and explanations create new knowledge. The teaching and learning model is also based on the idea that learning is a process of personal construction and reconstruction of ideas, rather than the absorption of a hierarchy of taught facts and concepts.

In practical terms, this means that teachers are not seeking to instil in students a selection of understandings, but are teaching and supporting them to experience and use creative ways of thinking to develop understandings of issues around them.

The interactive teaching and learning approach is based on the 21st Century Fluencies created by Crockett et al. (2011), and are outlined extensively in the book ***'Literacy Is Not Enough'*** by Crockett et al. (2011). See **https://globaldigitalcitizen.org/**. It uses the *solution fluency* through six phases: **Define; Discover; Dream; Design; Deliver and Debrief**. The phases of the model are based on based on

The fluencies are:

- **Define:** The 'Define 'phase begins with lessons that intellectually engage students with a challenge, problem, question and task. This phase captures their interest, provides an opportunity for them to express what they know about the topic, share understandings being developed, and helps them to make connections between what they know and the new ideas.
- **Discover:** The 'Discover' phase includes activities in which students can explore, investigate, research, read, discuss, gather, organise and compare knowledge and data. They grapple with the challenge, problem, question or phenomenon and describe it in their own words. This phase provides a context and enables students to acquire a common set of experiences that they can use to help each other make sense of the new knowledge or understandings.
- **Dream:** The 'Dream' phase enables students to imagine and develop possible solutions and explanations for the challenge, problem, question and task they have experienced. The significant aspect of this phase is that the students' explanations follow substantive conversations and higher order thinking experiences.
- **Design:** The 'Design' phase provides opportunities for students to apply what they have learned to new situations, to map production processes and so develop a deeper understanding of the challenge, problem, question or phenomenon. It is important for students to extend explanations and understandings, using and integrating different modes such as diagrammatic images, written language and media.
- **Deliver:** The 'Deliver' phase has two stages – production and publication or presentation. In the production phase, the task comes to life – this is the doing phase. At the end of this phase, the student task should be completed. Next, they present or publish their work sample to an audience.
- **Debrief:** The 'Debrief' phase provides an opportunity for students to revisit, review and reflect on their own learning and new understanding and skills. This is also when students provide evidence for changes to their understanding, beliefs and skills.

Source: Solution Fluency **https://globaldigitalcitizen.org/**

Throughout this educational resource the emphasis is on providing teachers with ideas and activities that enable them to:

- Provide a supportive classroom environment by valuing what students already know; meeting individual and collective needs; providing scaffolding and supporting all students to be successful.
- Be a resource person by collecting resources and materials; and suggesting strategies for investigation.
- Be a fellow investigator by advising on appropriate investigations; modelling ways of learning and identifying learning opportunities.
- Challenge students' ideas and learning strategies by encouraging further inquiry; providing the stimulus for investigating real life situations, alternative viewpoints and empowering students to investigate and respond to a challenge, task or project (commonly called 'Project-Based Learning').
- Co-evaluate what students know, can do and understand; using a range of assessment strategies including self assessment and peer assessment; negotiated assessment tasks, learning logs, observation and conferencing. (Note: The unit of work contains a 'Student Task' which is well suited for assessment, as it is the summation of the work undertaken by the students in the unit of work).

The unit of work has been designed as a sustained sequence of activities, based on the content descriptions of the Australian Curriculum identified in Year 5 and Year 6 in Design and Technologies and in Science.

Note that in each fluency phase, several activities are suggested from which teachers are encouraged to select the most appropriate for their purposes. Not all activities in each stage of the unit need to be used. Alternatively, teachers may adapt, modify, add to or complement the suggested activities with ideas to suit the needs of the students with whom teachers are working.

Also note, digital tools including YouTube videos and Apps are utilised in the unit, both for the teacher and students' use. The unit also offers options for how the unit can be implemented in high, low, and non-technical environments. Teachers' decisions will need to be based on what technology is readily available in their teaching environment. Students may have many ideas regarding the digital tools they might wish use in their work samples.

Teacher Notes

Resource description

This is a unit with six sequences about Australian red meat processors and butchers who undertake numerous activities to process cattle, sheep and goats into red meat products that are suitable for sale.

It introduces and explores the concepts of trimming, grading, branding, chilling, second and third grading, packaging, labelling, refrigeration, transportation and delivery of red meat products to customers.

It also features the technologies used by the processing industry and butchers to process livestock with quality assurance systems to ensure animal welfare, as well as safe and great tasting meat.

It also aims to help teachers and students in primary schools discover how people find solutions for the red meat processing industry and design and manufacture items like packaging to keep the meat clean, to protect it, and identify it; and graphic artists and designers who create labels to inform customers about the product.

Students are encouraged to consider practices used by red meat processors and butchers, and be part of the process of understanding, documenting and communicating the industry's processing, packaging and labelling practices.

Students are encouraged to think about how to give red meat labelling an update and communicate the process of converting livestock into a product suitable for retail sale.

Finally, the students communicate solutions used in the industry to an audience.

Year level: Year 5 & 6

Curriculum objectives

In this unit, students:

- Investigate how red meat is processed and produced in a managed environment;
- Investigate why red meat is processed and produced in a managed environment;
- Sequence the process of converting cattle, sheep and goat meat into a product suitable for sale;
- Explore technologies, tools, equipment, procedures and systems used in the industry to process, produce, package and label different cuts of meat;
- Explore the ways people in design and technology occupations, like packaging engineers and graphic artists, find solutions for the red meat processing industry;
- Use and apply concepts and ideas about how the Australian red meat processing industry supplies marketable cuts of meat;
- Design and deliver a presentation to give the industry an update and communicate ideas and solutions used in the Australian red meat processing industry; and
- Reflect on and evaluate what students know about how and why red meat is processed and packaged in managed environments and how it is prepared to enable people to grow and be healthy.

Based on Australian Curriculum, Assessment and Reporting Authority (ACARA) materials downloaded from the Australian Curriculum website in January 2017. ACARA does not endorse any changes that have been made to the Australian Curriculum.

Australian Curriculum Content Descriptions

Technologies

Design and Technologies knowledge and understanding

Investigate how and why food and fibre are produced in managed environments and prepared to enable people to grow and be healthy **ACTDEK021**

Investigate how people in design and technology occupations (packaging engineers and graphic designers) address competing considerations, including sustainability in the design of products, services and environments for current and future use **ACTDEK019**

Design and Technologies Processes and Production Skills

Critique needs or opportunities for designing, and investigate materials, components, tools, equipment and processes to achieve intended designed solutions **ACTDEP024**

Generate, develop, and communicate design ideas and processes for audiences using appropriate technical terms and graphical representation techniques **ACTDEP025**

Select appropriate materials, components, tools, equipment and techniques and apply safe procedures to make designed solutions **ACTDEP026**

Negotiate criteria for success that include sustainability to evaluate design ideas, processes and solutions **ACTDEP027**

Develop project plans that include consideration of resources when making designed solutions individually and collaboratively **ACTDEP028**

Science

Science as a human endeavour: Use and influence of science

Scientific knowledge is used to solve problems and inform personal and community decisions **ACSHE100**

Cross Curriculum Priorities: Sustainability

OI 2: All life forms, including human life, are connected through ecosystems on which they depend for their wellbeing and survival.

OI.3: Sustainable patterns of living rely on the interdependence of healthy social, economic and ecological systems.

OI.7: Actions for a more sustainable future reflect values of care, respect and responsibility, and require us to explore and understand environments.

OI.8: Designing action for sustainability requires an evaluation of past practices, the assessment of scientific and technological developments, and balanced judgments based on projected future economic, social and environmental impacts.

General Capabilities

Literacy

This unit's learning experiences enable students to develop literacy capabilities that relate to everyday living contexts that students face throughout their lives. For example:

- Comprehending texts through listening, reading and viewing;
- Composing texts through speaking, writing and creating;
- Developing skills in reading, interpreting and analysing information;

- Developing oral language skills as students ask questions, seek advice, present viewpoints and discuss their practical tasks; and
- Developing an understanding of terminology and vocabulary used in the industry, for example: Sirloin, Rump, Steak, Topside, Tenderloin, etc.

Numeracy

This unit's learning experiences enable students to develop numeracy capabilities that relate to everyday living contexts as they make recipes. For example:

- Calculating and estimating; and
- Using a range of measurement techniques when producing labels for a cut of red meat.

ICT Capability

This unit's learning experiences enable students to develop the capacity to both manage and use information technology safely and responsibly, including the capacity to evaluate sources and their reliability, accuracy and validity of information and use digital technologies in academic, practical, collaborative and creative pursuits. For example:

- Applying social and ethical protocols and practices when using ICT;
- Investigating with ICT;
- Creating with ICT;
- Communicating with ICT;
- Managing and operating ICT; and
- Developing skills to undertake effective searches online and locate appropriate information in a timely manner.

Critical and Creative Thinking

This unit's learning experiences enable students to develop the capacity to solve problems, think critically and creatively, or generate new ideas. Students will also identify alternative explanations, see links and find new ways to apply ideas in the context of everyday living as they engage in designing a red meat label to showcase the point of origin and way an Australian red meat product has been processed and can be cooked. For example:

- Inquiring – identifying, exploring and clarifying information;
- Generating innovative ideas and possibilities;
- Reflecting on thinking, actions and processes;
- Analysing, synthesising and evaluating information; and
- Developing creative solutions when they apply divergent thinking to resolving design challenges—for example, designing and creating a label for a type and cut of red meat.

Personal and Social Capability

This unit's learning experiences enable students to develop the capacity to take responsibility for their own work and learning, manage their learning, monitor, reflect on and evaluate learning. They also identify personal characteristics that contribute to or limit effectiveness, plan and undertake work independently, take responsibility for their behaviour and performance, and learn from successes and failures. For example:

- Managing their own and others' safety when working in food preparation and presentation areas and in an online environment; and
- Interacting with others in social and communal activities in practical food preparation classes.

Source: Australian Curriculum, Assessment and Reporting Authority (ACARA), downloaded from the Australian Curriculum website in January 2017.

Additional Teacher Notes

Selecting activities

At each stage of the learning sequence, several activities are suggested from which teachers are encouraged to select the most appropriate for their purposes. Not all activities in each stage of the unit need to be used. Alternatively, teachers may add to or complement the suggested activities with ideas of their own.

Adapting the unit

The unit is targeted at junior secondary students. This is a suggested age range only and teachers are encouraged to modify activities to suit the needs of the students with whom they are working.

At each stage of the unit, a number of activities are listed. Teachers are not expected to do them all. Instead, the units are designed such that a selection of activities can be made at each stage. Teachers should select the activities according to the needs and interests of their students and the time, relevance to the existing school curriculum and resources available to them.

Suggestions from review teachers

Teachers who trialled and reviewed these materials encouraged others to 'put your own spin on it and be sure it is suited to your class'. Here are some of their ideas about how they did this:

- Start by finding out what students' attitudes and knowledge is of the supply chain.
- Condense the unit to suit your needs
- Take time to really explore the resources for yourselves, keeping in mind the perspective of your students and their learning needs and style. Immerse yourself in the programs first to appreciate the material that is contained in them.
- Watch all the videos first if you have no background in livestock production or no knowledge of red meat processing. Download the videos if you are in a poor download speed area (also saves school funds if downloaded once!!)
- A visit to a processing plant or a butcher would be an advantage- gives the students a better understanding of all the processes involved. Or have a guest speaker. Maybe show one of the Dr Temple Grandin videos (watch first to select the suitable parts for your own class)
- Be open-minded and you'll be surprised. Try them. Give it a go, Jump in.

Time allocation

This will, of course, depend on particular circumstances but generally, four to six weeks is suggested.

Moodles, Wikis and e-Learning Systems

It is suggested that the 'Student Resources' at the rear of this unit be made available to students on the school's e-learning system or other e-platforms such that students can access the materials and drive their own learning.

Differing tastes and eating preferences

Encouraging children to eat healthy food is a global issue. People can have different views about eating red meat and it is suggested that where students are vegetarian, pescatarian or vegan, they can choose to investigate how different fruits and vegetables are processed and packaged in managed environments, and prepared to enable people to grow and be healthy. These students can design and produce a label for a type and fruit or vegetable with an info-graphic that sequences the process of converting the type of fruit or vegetable into a product suitable for sale. That design needs to identify an actual Australian State/Territory and Australian Processor as the point of origin, and it needs to list the product's ingredients by name and quantity, along with its use-by date. It needs to include information for the consumer whether the fruit or vegetable has had anything added to it, and how the fruit or vegetable can be prepared for healthy eating.

Assessment

The assessment methodology is based on using two rubrics, one specifically for the task set in this unit, and the other based on the learning process. The **assessment rubrics**, are the summation of the student's learning tasks. The rubrics provide:

- A common language for discussing student achievement in relation to the tasks undertaken, and
- A means of engaging with, and communicating student achievement, to the student and his/her parents or caregivers.

The rubric columns: levels

Each of the rubrics is divided into four levels.

Level 1: Basic

Level 2: Sound

Level 3: High

Level 4: Outstanding

The rubric rows: aspects of the task

Each of the rubrics is divided into rows, with each row representing critical aspects of the student task.

The task in this learning sequence involves students:

- gathering and analysing information about how and why red meat is processed and packaged in managed environments and prepared to enable people to grow and be healthy;
- designing and producing a label for a type and cut of red meat into a product suitable for sale;
- identifying and actual Australian locality and Australian Processor as the point of origin;
- listing the product's ingredients by name and quantity as well as a use-by date;
- including information for the consumer about how the cut of red meat can be prepared for healthy eating; and
- making a three minute presentation of the label to an audience and communicating how it can educate consumers about how their chosen food is processed in Australia.

Overall project rubric

This rubric is designed to specifically evaluate what has been asked of the students from the scenario presented to the class.

Syllabus	Level 4	Level 3	Level 2	Level 1
ACTDEK021 Weighting 25%	A red meat label with an info graphic that sequences the process of converting beef, lamb or goat meat into a product suitable for sale and a design that identifies an actual Australian locality and Meat Processor as the point of origin, lists the product's ingredients by name and quantity, as well as its use-by date and includes information about how the cut of meat can be prepared for healthy eating has been created. The design shows evidence of extensive research of the subject matter.	A red meat label with an info graphic that sequences the process of converting beef, lamb or goat meat into a product suitable for sale and a design that identifies an actual Australian locality and Meat Processor as the point of origin, lists the product's ingredients by name and quantity, as well as its use-by date and includes information about how the cut of meat can be prepared for healthy eating has been created. The design shows evidence of research of the subject matter.	A red meat label with an info graphic that sequences the process of converting beef, lamb or goat meat into a product suitable for sale and a design that identifies an actual Australian locality and Meat Processor as the point of origin, lists the product's ingredients by name and quantity, as well as its use-by date and includes information about how the cut of meat can be prepared for healthy eating has been created. The design shows evidence of some research on the subject matter.	A red meat label with an info graphic that sequences the process of converting beef, lamb or goat meat into a product suitable for sale and a design that identifies an actual Australian locality and Meat Processor as the point of origin, lists the product's ingredients by name and quantity, as well as its use-by date and includes information about how the cut of meat can be prepared for healthy eating has been created. The design shows evidence of little research of the subject matter.
ACTDEK021 Weighting 25%	The content showed clear evidence of research and understanding of different practices used to produced beef, lamb or goat meat; and how the students might prepare it for eating.	The content showed some evidence of solid research and understanding of different practices used to produced beef, lamb or goat meat; and how the students might prepare it for eating.	The content showed limited evidence of research and understanding of different practices used to produced beef, lamb or goat meat; and how the students might prepare it for eating.	The content showed little research and understanding of different practices used to produced beef, lamb or goat meat; and how the students might prepare it for eating.
Literacy 10% Critical & creative thinking Weighting 10%	The design and layout of the red meat label makes it very easy to understand and interpret the information provided.	The design and layout of the red meat label makes it easy to understand and interpret the information provided.	The design and layout of the red meat label makes it possible to understand and interpret the information provided.	The design and layout of the red meat label makes it difficult to understand and interpret the information provided.
Critical & creative thinking Weighting 10% ICTs Weighting 10%	The presentation of the red meat label and how it educates consumers about how red meat is processed in Australia was communicated with a logical flow and without pauses.	The presentation of the red meat label and how it educates consumers about how red meat is processed in Australia was communicated with a logical flow and with few pauses.	The presentation of the red meat label and how it educates about how red meat is processed in Australia was communicated with a mostly logical flow and with some pauses.	The presentation of the red meat label and how it educates consumers about how red meat is processed in Australia was communicated with a little logic and many pauses.
Literacy Weighting 10%	The student answered all questions clearly and accurately.	The student answered most questions clearly and accurately.	The student answered some questions clearly and accurately.	The student answered a few questions clearly and accurately.

Learning process rubric

Each of the learning progressions in the learning sequence has a prerequisite for progression – a list of what the student needs to accomplish in order to proceed to the next step in the process. The text from those areas is duplicated in this rubric and can be used with students to guide their progress with feedback, in a mini-debrief, helping them to refine their process and product at critical points throughout the learning sequence.

Level 4	Level 3	Level 2	Level 1
A clear definition of the task was provided.	A somewhat clear definition of the task was provided.	An average definition of the task was provided.	A definition of the task could not be provided.
Research and analysis was completed with no prompting.	Research and analysis was completed with minimal prompting.	Research and analysis was completed with some prompting.	Research and analysis was completed with significant prompting.
A clear visualisation of the red meat label was provided.	A mostly clear visualisation of the red meat label was provided.	A reasonably clear visualisation of the red meat label was provided.	No clear visualisation of the red meat label was provided.
An extremely clear plan of what the red meat label will contain was provided.	A very clear plan of what the red meat label will contain was provided.	A clear plan of what the red meat label will contain was provided.	A somewhat unclear plan of what the red meat label will contain was provided.
An extremely clear plan of the accompanying narrative was provided.	A very clear plan of the accompanying narrative was provided.	A clear plan of the accompanying narrative was provided.	A somewhat unclear plan of the accompanying narrative was provided.
The red meat label has been created and presented to an audience with a logical presentation about how it educates consumers about how red meat is processed in Australia	The red meat label has been created and presented to an audience with a mostly logical presentation about how it educates consumers about how red meat is processed in Australia.	The red meat label has been created and presented to an audience with a somewhat logical presentation about how it educates consumers about how red meat is processed in Australia.	The red meat label has been created and presented to an audience with little logic about how it educates consumers about how red meat is processed in Australia.

Meat Matters:

Facts and Figures about the Australian Red Meat Processing Industry

The following basic information may be helpful when teachers interact with their school students.

The Meat and Livestock Industry

- There are approximately 29 million head of cattle, 70 million sheep and millions of bush goats in Australia.
- Australia is one of the world's most efficient producers of cattle and the world's third largest exporter of beef.
- Australia is also one of the world's leading producers of lamb and mutton, the world's largest exporter of mutton and the second largest exporter of lamb.
- Australia is a relatively small producer of goat meat, yet is the world's largest exporter of goat meat.

Source: Meat and Livestock Australia **http://mla.com.au**

Looking after our cattle, sheep and goats

Good animal welfare is not only vital from a moral and ethical perspective, but also for farmers and processors' productivity, profitability and sustainability. To continually improve the well-being of Australia's cattle, sheep and goats, the industry invests in research and development to provide tools and knowledge for farmers, transporters and processors.

Animal welfare research is undertaken on farms, at feedlots and at the processing sites of beef, lamb and goat meat.

The Red Meat Industry

Around 200,000 people are employed in the Australian red meat industry, including on-farm production, transporters, processing and retail activities.

Australian cattle, sheep and goat farmers, livestock transporters and processors value highly the health and wellbeing of their stock.

Farmers have an attachment to their cattle, sheep and goats, as they have often raised animals from birth and they know that healthy and well cared for stock also produce better quality, beef, lamb, mutton and goat meat. It is widely acknowledged that consumers want their red meat produced humanely and ethically. As such, Australian cattle, sheep and goat producers are recognised around the world for their animal husbandry and farm management techniques.

The Australian Meat Processing Sector

Australian Meat Processors and Butchers are passionate about delivering top quality, safe and nutritious products to the market.

The Australian Meat Processing Sector is a world leader in processing beef, lamb and goat meat and processing plants employ the latest technologies to ensure superior levels of meat product.

Australia has approximately 300 abattoirs (including boning rooms) with a workforce of around 34,000 people. The red meat processing industry is estimated to contribute just under $23 billion of value added to the Australian economy including flow-on impacts, equivalent to 1.5 percent of Australia's Gross industry value added. It generates 134,000 jobs equivalent to 1.4 percent of full-time equivalent (FTE) employment when flow-on effects are taken into account.

Source: Heilbron, S.G. 2016. Evaluating the Socio-economic benefit of the red meat processing industry in regional Australia, pages 14 and 20. (Unpublished)

Red Meat Processors trim and prepare the beef, sheep and goat carcases to specific standards. They grade the carcasses for colour, tenderness, fat, age, sex and bruising according to AUS-MEAT standards and weigh and brand each carcase. The weight is used to calculate how much farmers are paid.

Meat Processors who work in abattoirs include Trimmers, Boners, Graders and Packers.

A 'Trimmer' skins, cleans, trims, dresses, hangs and prepares the beef, lamb or goat carcasses to specific standards.

Each carcass is cut in half and carefully chilled in the chiller room. The chiller room keeps the meat at the correct temperature to ensure the red meat is tender and fresh.

After chilling, meat 'Graders', grade the beef, lamb and goat meat for colour, tenderness, fat, age, sex and any bruising on the meat. Each carcass is tagged by the 'Graders' to show the classification, the date of processing and the brand of meat, as well as the plant in which it was processed.

After chilling for at least 24 hours the 'Boners' cut the beef, lamb and goat meat into different cuts of meat or prepare the carcasses to be sent to a butcher who will prepare the smaller cuts of meat.

Meat 'Packers' pack the varying cuts of beef, lamb and goat meat ready for sale and delivery to local, regional, interstate and overseas customers.

Red meat products are transported from the processing plant to butchers, wholesalers, restaurants and supermarkets, in refrigerated trucks. There are Australian Standards that must be followed during transportation to make sure that the red meat is kept hygienic for people to eat.

Red meat for export markets is packed into large refrigerated containers and delivered to ports and airports for transport overseas.

Stringent food safety standards are applied by Quality Assurance teams to ensure the meat is hygienic to eat by consumers in Australia and overseas.

How much red meat do Australians eat?

- Australians eat around 32.5kg of beef per person annually equating to approximately $6.6 billion.
- Australians eat around 9.7kg of lamb annually equating to approximately $2 billion.
- Goat meat is the most widely consumed meat in the world and Australians are eating more of it.

Step 1: The essential question and scenario

Objective: Define the main question and share the scenario that is the focus of the unit.

Ask students to think about and describe what they know about how beef, lamb or goat meat might be processed.

Encourage students to tell, write or draw their ideas. Display these for future reference.

Set the task and explain to the class that in this unit their task is to learn about how and why red meat is processed and packaged in managed environments and prepared to enable people to grow and be healthy. The students are required to design and produce a label for a type and cut of red meat with an info graphic that sequences the process of converting the beef, lamb or goat meat into a product suitable for sale.

The design needs to identify an actual Australian locality and Australian Processor as the point of origin, and it needs to list the product's ingredients by name and quantity, along with its use-by date. It needs to include information for the consumer about how the cut of meat can be prepared for healthy eating.

Students are also required to make a three minute presentation of the label to an audience and communicate how it can educate consumers about how red meat is processed in Australia.

Share the following question and scenario with the class.

The essential question:

How do we benefit by understanding all the things Australian red meat processors and butchers do to bring us juicy, tender, red meat?

The scenario

The Australian Meat Processor Corporation (AMPC) is searching for schools to investigate how and why red meat is processed so we can have juicy red meat products to eat!

This industry is made up of dedicated and specialised meat processors and butchers who produce all of the cuts of red meat we love to eat.

Most people know that beef comes from cattle, lamb from sheep and goat meat from a goat, but did you know that your different cuts of red meat are processed and made ready for sale and delivery to customers by meat processors and butchers?

Play an interactive, view videos and images, and read about this industry that produces much of our juicy and tender beef, lamb and goat meat that we enjoy eating.

Investigate some of the different types of packaging the local butcher shop, supermarket meat cabinets contain and explore the variety of cuts of red meat such as steaks, fillets, sirloins, mince and roasts that are a 'Product of Australian Meat Processors'.

Your task is to design and produce a label for a type and cut of red meat with an info graphic that sequences the process of converting the beef, lamb or goat meat into a product suitable for sale.

It will need to be eye-catching to the consumer and identify an actual Australian locality and Australian Processor as the point of origin, and it needs to list the product's ingredients by name and quantity, along with its use-by date. It needs to include information for the consumer about how the cut of meat can be prepared for healthy eating.

You are also required to make a three minute presentation of the label to an audience and communicate how it can educate consumers about how red meat is processed in Australia.

Your challenge is to develop questions regarding how types of red meat are processed, packaged and labelled and then use a range of sources and images to help you create your red meat label. Are you up for the challenge?

High, low and no tech options are available.

High Tech: You can design and produce the label digitally using an app or software to create original graphics.

Low Tech: You can design and produce label using a standard computer, graphics provided and editing software.

No Tech: You can design and produce the label using art materials, poster board and hand written information and drawings.

Share a copy of the essential question and the scenario with the students. See Student Task Sheet in **Resource 1.1**

Step 2: Define understandings

Objective: Have students illustrate their understanding of the challenges set out in the scenario by providing an oral definition of the task.

Capture students' interest and find out what meals they like that include beef, lamb or goat meat.

Talk with students about what they know about the way red meat like beef, lamb and goat meat is produced and processed, and the people who produce and process it, what processing is, what it comprises, and how it is presented in supermarkets and butcher shops.

Make lists of sentences and phrases that describe what students know about these ideas and ask students to share these with a partner. After sharing students' ideas make a list of sentences and phrases as a whole class. Keep these lists and use them as a reference point for discussion later in the unit.

Categorise these ideas into groups about what is known about the way beef, lamb or goat meat is produced and processed, and the people who produce and process it, what processing is, what it comprises, and how it is presented in supermarkets and butcher shops.

Focus student's thinking on the title of this unit of work 'From Paddock to Plate: The Essential Ingredient – Red Meat Processing', discuss why red meat processing is essential and consider what it might be like if there were no red meat processors or butchers. Ask questions like "How might Australians get their favourite cuts of meat if there were no meat processors or butchers?"

Ask students to make predictions about red meat processors and butchers who might live and work in the local region. Ask questions like: 'Is there a meat processing plant in our region?'; 'Are there local butchers in the area who process their own livestock?' and 'Are there any local farmers who produce their own livestock and then control the entire meat production chain by having their own on-farm butcher shop in our region?'

Re-focus on the different meat based meals that students enjoy and ask questions relating to whether students appreciate or know the different cuts of meat that are used to prepare their favourite red meat meal. For example: Steak in a steak sandwich; mince in a hamburger or pie; stir fry strips in stir fries; diced red meats in kebabs, etc.

Use Pinterest **https://www.pinterest.com** and search for different 'cuts of red meat'. Similarly, search 'Google' for images and charts of different cuts of red meat, or search for more information using **http://www.beefandlamb.com.au/Learn/Plate/Tools_and_Apps/Cuts_Chart**

Invite students to create a folder and 'save' images of cuts of beef, lamb and/or goat meat for their work later in the unit.

Brainstorm and record the different types of beef, lamb or goat meat cuts known to the class.

Create a 'Word Cloud' using Wordle **http://www.wordle.net** highlighting the different meat cuts that processors and butchers prepare every day and display around the classroom.

Introduce the term "paddock to plate" and share ideas about how Australian beef, lamb or goat meat gets from the paddock where it is grown, to our plates. For example: farmers raise the animal for meat production; it is then processed and packaged; meat cuts are then distributed to food retailers, supermarkets, butchers and chefs in restaurants; and cooked and consumed.

Discuss the important health benefits of eating lean trimmed red meat as a source of protein, iron, fats, niacin, phosphorus and calcium.

Discover more about the five core food groups important for good health. Play the "Legendary Every Day" interactive **http://www.dairy.edu.au/discoverdairy/learning-resources/interactives/everyday-small** and find out how many serves of lean red meat, like beef, lamb or goat meat a child should eat as part of a healthy diet every day.

Learn more about the nutritional value of meat at **http://www.mlahealthymeals.com.au/**

Talk with students about the particular beef, lamb and goat meat products they eat, from where they are purchased, the number of times per week that beef, lamb or goat meat is eaten; ways beef, lamb or goat meat is prepared for eating and their favourite beef, lamb or goat meat meals.

Introduce students to a variety of labels that are used on red meats. See **Resource 1.2.**

Share these labels and/or a variety of other labels and ask students if they have ever seen this label before. If so, where have they seen it and in what context?

Invite students to visit their local supermarket to explore where the beef, lamb and/or goat meat sold there comes from, the types of cuts available and to report back on the products found, the different cuts and the labelling used.

Collate students' ideas and display for future reference.

Talk with students about responsible digital citizenship in online environments. Work with students to have them understand that during this unit they will be using a range of websites, gathering information about, cuts of red meat, meat labels, recipes and ideas. Students need to continuously check that the research is correct by using reliable sites. Similarly, discuss the use of free and open sources for images, and videos and the need to request the use of software and media others produce. Remind students about the importance of referencing their sources.

Remind students that there are high-tech; low-tech and no-tech options that they can consider when designing and creating their red meat label.

Invite students to recall the focus of the task that the AMPC has invited them to undertake.
See **Resource 1.1**

Ask students what they might need to know more about, in order to undertake the challenge set by AMPC. Might they need to know something about whether they have family, relatives or friends who work as meat processors or butchers? Might they need to know whether any meat processors are to be found in their state or territory? Might they need to think about the cuts of beef, lamb or goat meat they eat that are processed by Australian meat processors or butchers? Might they need to know something about how beef, lamb and goat meat are processed? Might they need to know something about labels that are used on red meat products? Might they need to check out some red meat labels? Might they need to collect key words that describe meat processing? Could they actually create their label using their digital devices? Could they create their label and info graphic using other materials and tools?

Ask students how they might evaluate their red meat label that includes an info graphic that sequences the process of converting the type of red meat into a product suitable for sale, its design and the information it communicates? How might they evaluate the effectiveness of their accompanying presentation?

Share the assessment rubrics for the unit with the students or create an assessment rubric using the student's ideas.

Prerequisite for progression:

Ask students to articulate their understanding of the task/challenge through oral conversation and if appropriate a written (scribed) statement. See **Resource 1.3**.

Note: The Prerequisite for Progression are the checkpoints that occur at the end of each stage of the learning sequence. This is the time at which formative feedback is given to the students about what they have accomplished in that stage. It describes what the students must complete before they move onto the next phase of the unit. (Crockett, et, al)

Step 3: Discover

Objective: Have students research, read, view, listen to, discuss, gather, organise and analyse ideas about what Australian meat processors and butchers process and produce and how they convert beef, lamb or goat meat into a product suitable for sale.

Ask students to consider the questions 'What is red meat processing?'; 'What might red meat processors and butchers do?'; 'Where are Australian meat processors located?'; 'How might we explore how meat processors and butchers convert beef, lamb and goat meat into a product?' and 'How might we discover more about how beef, lamb and goat meat get from the paddock to our plates?'.

Introduce Resource 1.4 where students can record information and reference the sources they use. See **Resource 1.4.**

Use a map to find information about where the meat processors are located in Australia. See **Resource 1.4.**

Use Google Earth and explore maps and identify meat processors closest to where you live and from where you buy your beef, lamb or goat meat products.

View video footage taken of a NSW farmer who produces his own livestock and then controls the entire meat production chain by having his own butcher shop in southern NSW, to find out what's involved in converting beef and lamb into a variety of different products. **https://youtu.be/R0pL8V2RzQg**

Listen to Jeremy who details his role in caring for the animals during transportation to the local abattoir where they are processed. **https://youtu.be/blzGbJrKido**

Document the different steps involved in getting this farmer's beef and lamb products ready for processing in this butchery. Create a flow chart to sequence the steps.

Go further and view and find out how Paul and his team then break up the red meat into different cuts, package and label their product before displaying it in the shop.

List the different cuts of beef that Sandy the butcher removes portion by portion from the carcass of beef seen in the video.

Delve deeper and listen to Paul talk about the importance of labelling on meat products.

View the illustration in **Resource 1.4.1** of the steps that take place in getting beef, lamb and goat meat from the paddock to our plates. Add additional steps to the flow charts created in the earlier activity.

Play the AMPC 'Paddock to Plate' digital interactive showing the journey of how beef, lamb and goat meat get to you. **http://www.ampc.com.au/digital-interactive**

Replay the interactive and find out:

- How the cattle, sheep and goats are transported;
- How the cattle, sheep and goats might be processed by Trimmers, Graders, Butchers, Boners and Packers;
- What food safety standards are applied to ensure the meat is safe to eat;
- How the red meat products are packaged and labelled;
- How the packaging is handled after processing for sale and delivery to local, interstate and overseas customers;
- How the red meat products are displayed in butchers and supermarkets; and
- What types of recipes can be prepared using beef, lamb and goat meats.

Replay the interactive and read for information and record ideas about the all the steps involved in processing red meats.

View the video footage of the way this IGA supermarket sources and processes lamb into different cuts and then packages and label these for customers to buy and prepare at home. **https://youtu.be/Izn2xigKshk**

Extend students' understandings about what is featured on the red meat labels used at this IGA supermarket. Talk about how manufacturers are legally required to list a product's ingredients by name and quantity, along with its use-by date. Locate this information on IGA's red meat labels.

Introduce QR codes, the machine readable label on many meat labels. Ask students to locate them in images contained in **Resource 1.2**

Delve deeper to appreciate the new food labelling laws introduced in Australia from July 1, 2016 **http://www.foodlabels.industry.gov.au/**

View and analyse the new labels that feature a kangaroo, text and a bar chart which shows the percentage of Australian content in different foods.

Talk about the importance of being able to trust a food label's claims and the importance of claims being based on science and not a sales pitch.

Think about and discuss the major types of red meats processed in Australia and brainstorm what technologies and skills processors and butchers need to use and manage to process, produce, package and label different types of cuts of beef, lamb and goat meat for us to purchase and eat.

Ask students the question 'What should this processing and butchery work mean to every Australian?'

Re-focus students' attention on the essential question in this unit, namely 'How do we benefit by understanding all the things Australian red meat processors and butchers do to bring us juicy, tender red meat?'

Ask students to draft a piece of text about their personal understandings about what's involved in meat processing.

Remind students that their task is to design and produce a red meat label for a type and cut of red meat with an info-graphic that sequences the process of converting the beef, lamb or goat meat into a product suitable for sale. It will need to be eye-catching to the consumer and identify an actual Australian locality and Australian Processor as the point of origin, and it needs to list the product's ingredients by name and quantity, as well as its use-by date. It needs to include information for the consumer about how the cut of meat can be prepared for healthy eating.

Invite students to sketch a plan of what their label might contain and look like. Ask students to consider the placement of their info graphic in addition to any pictures and text.

Ask the students to share their understandings with others.

Ask each student to share what their research has told them and what they still have to accomplish within the task with their peers, the teacher and family.

Prerequisite for progression:

Students have worked as a class, individually and in pairs and collected research on what Australian meat processors and butchers process and produce and how they convert beef, lamb or goat meat into a product suitable for sale.

Students have viewed and collected research about red meat labels, what manufacturers are legally required to list and new food labelling laws introduced in Australia.

Websites, videos, images, an interactive and stories are used to contextualise understanding. Students will share their ideas with peers, the teacher and family.

Step 4: Dream

Objective: Have students imagine how they are going to design a label for a type and cut of red meat with an info graphic that sequences the process of converting it into a product suitable for sale, that includes an actual Australian locality and Australian Processor as the point of origin, a list of the product's ingredients by name and quantity, as well as its use-by date and information for the consumer about how the cut of meat can be prepared for healthy eating.

Ask students to visualise their label, form a mental image and see the possibilities.

Ask students to play with ideas, colours and the intended statements that their red meat label will make.

Use Resource 1.5 with students to pose questions about the possible ways of designing and creating their label for a cut of red meat. Questions include:

Consider the many possible ways you can design and create a label for a cut of red meat that includes:

- an info graphic that sequences the process of converting the type of red meat into a product for sale;
- identifies and Australian locality and Meat Processor as the point of origin;
- lists the product's ingredients by name and quantity, as well as its use-by date; and
- include information for the consumer about how the cut of meat can be prepared for healthy eating?

Think about the questions posed below and record your 'draft' solutions.

How will you design your label and create the accompanying info graphic?

How will your label describe the cut of meat's points of origin?

How will your label list ingredients by name and quantity, as well as its use-by date?

How will your label include information for the consumer about how the cut of meat can be prepared for healthy eating?

How might you present your label to an audience and communicate how it can educate consumers about how red meat is processed in Australia?

What might you have to do to make your design idea possible?

What might it include?

On what might it be focussed?

How might it be created?

What are the different ways it could be created?

Ask students to record their draft ideas.

Introduce students to information about some designing principles **http://www.j6design.com.au/6-principles-of-design/**

Talk about colour schemes and how colour is used by graphic designers and artists to invoke connections, senses and emotion.

Invite students to think about why red meat is red and ask whether they therefore might use red in the label?

Ask students to think about the market to which they are 'pitching', namely shoppers and consumers who buy red meat. Ask questions about whether the students' labels are for:

- a superior cut of meat;
- a lesser grade of meat;
- a Country Butcher;

- a Supermarket chain;
- a Restaurant; or
- a Farmer's Market.

Invite students to generate their draft design ideas.

Ask students to imagine the steps involved in producing a red meat label for a type and cut of red meat with an info graphic that sequences the process of converting the beef, lamb or goat meat into a product suitable for sale. It will need to be eye-catching to the consumer and identify an actual Australian locality and Australian Processor as the point of origin, and it needs to list the product's ingredients by name and quantity, along with its use-by date. It needs to include information for the consumer about how the cut of meat can be prepared for healthy eating.

Challenge students to think about the materials, tools, and equipment they will need to design and create the red meat label. Will they use digital or non-digital equipment and tools? How might they work safely and co-operatively? How might they appropriately source their images and information that is used to create the label and accompanying narrative that explains how it can educate consumers about how red meat is processed in Australia?

Ask students how they might evaluate whether their label and accompanying 3 minute presentation meet the original criteria of their task? Might they create a matrix of success criteria?

Progressions for Learning:

The class have brainstormed ideas and begin designing a red meat label for a type and cut of red meat with an info graphic that sequences the process of converting the beef, lamb or goat meat into a product suitable for sale. It is eye-catching to the consumer and identifies an actual Australian locality and Australian Processor as the point of origin, and lists the product's ingredients by name and quantity, as well as its use-by date, with information for the consumer about how the cut of meat can be prepared for healthy eating; and have answered the questions posed in the dream phase.

Step 5: Design

Objective: Have students explain, prepare and action how they are going to design and produce a red meat label for a type and cut of red meat with an info graphic that sequences the process of converting the beef, lamb or goat meat into a product suitable for sale, that is eye-catching to the consumer, identifies an actual Australian locality and Australian Processor as the point of origin, and lists the product's ingredients by name and quantity, as well as its use-by date, with information for the consumer about how the cut of meat can be prepared for healthy eating.

Ask students to decide on the type of label and the messaging in the accompanying presentation they are going to design.

Invite students to develop a project plan using the template in **Resource 1.6** outlining the planning and production steps required to produce their label and accompanying presentation.

Talk about the importance of a clear layout and design that makes it easy for an audience to understand and interpret the information given.

Talk about the importance of sourcing graphics, clip art and information correctly.

Review rules on personal safety, group safety, and classroom and furniture safety with the students.

Ask students to establish a work station and to gather the materials and tools they require.

Talk about safely storing their work samples and keeping a record of the processes they use to create it.

Ask students to start actioning the steps involved in making their chosen digital or non-digital work samples.

Ask students to gather the materials, tools, and equipment needed and then plan each step involved in creating the digital or non-digital work samples.

Invite students to start creating the label and presentation. Suggest they might like to use the design template of a meat tray in **Resource 1.6.1.**

Talk with students about how they might share and present their label and accompanying narrative about how it can educate consumers about how red meat is processed in Australia, to an audience?

Ask students to explain how they plan to finalise and create their work samples to another peer in the class and seek feedback on their ideas.

Progressions for Learning:

Students are able to document in oral or written/digital forms how this project is to occur. The understanding is demonstrated by the students explaining their thinking to a peer in the class.

Step 6: Deliver- produce

Objective: Have students deliver their red meat label for a type and cut of red meat with an info graphic that sequences the process of converting the beef, lamb or goat meat into a product suitable for sale, that is eye-catching to the consumer and identifies an actual Australian locality and Australian Processor as the point of origin, and lists the product's ingredients by name and quantity, as well as its use-by date, with information for the consumer about how the cut of meat can be prepared for healthy eating.

The Delivery phase has two stages – production and publication. In the production stage the project comes to life – this is the doing phase. At the end of this phase the publication/presentation of the label and accompanying presentation about how it can educate consumers about how red meat is processed in Australia should be completed.

Ask students to finalise their design and create their label and accompanying presentation about how it can educate consumers about how red meat is processed in Australia

Invite students to use **Resource 1.7** to draft their presentation narrative.

In the Publish phase, students get to showcase all of their thinking and planning. This is the time when students deliver their labels and accompanying three minute presentation to each other or an audience. This is a good time for peer or self-assessment.

Ask students to share their label and accompanying presentation with others.

Video presentations of the students' labels and enjoy a day of showcasing what has been discovered about how red meat is processed in Australia.

Progression for learning:

Each student has produced a label and an accompanying presentation about how it can educate consumers about how red meat is processed in Australia.

Step 7: Debrief

Objective: Assess the results of the label designs and accompanying three minute presentation about how it can educate consumers about how red meat is processed in Australia.

Ask students to reflect on their learning using **Resource 1.8**.

Re-tell their findings about how red meat is processed typically in Australia.

Identify and describe a dedicated locality in Australia that raises and produces either cattle, sheep or goats and a specialised Australian meat processors or butcher who process beef, lamb or goat meat.

Identify and describe what is legally required to be listed on a food label.

Identify and describe how a cut of red meat can be prepared for healthy eating.

Evaluate their label and accompanying presentation and write about whether their work:

- matched the definition of the task
- used a clear layout and design, and
- has included sources of any graphics, images and information used whilst creating the label and presentation.

Write about the quality of their planning, their finished label and presentation and whether they enjoyed the task.

In addition, students might also like to assess other student's work samples and presentations as well.

References and Resources

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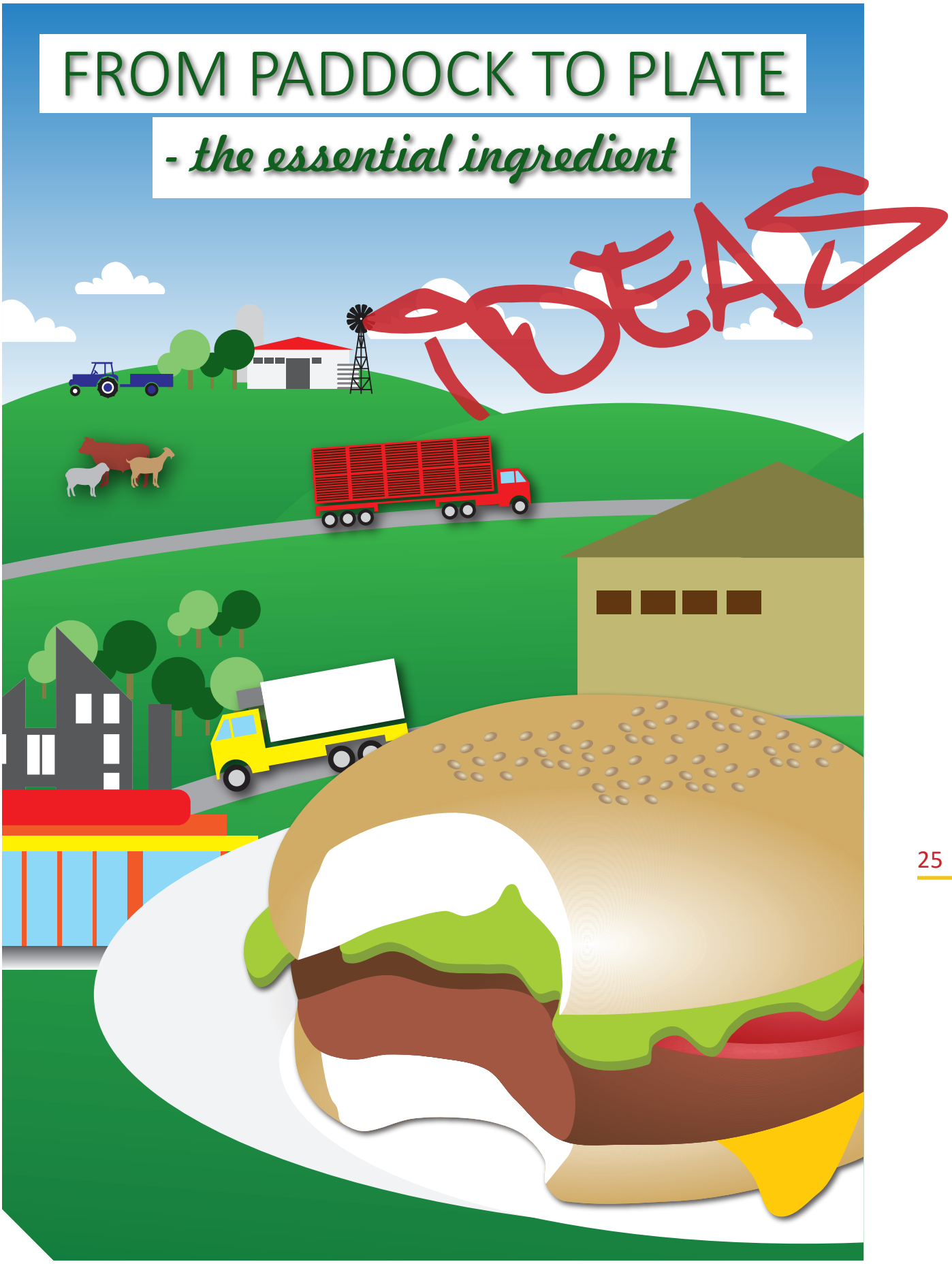

FROM PADDOCK TO PLATE
- the essential ingredient
IDEAS

The essential question:

What are the benefits when we understand all the things Australian red meat processors and butchers do to bring us juicy, tender red meat?

The scenario

The Australian Meat Processing Corporation (AMPC) is searching for schools to investigate how and why red meat is processed so we can have juicy red meat products to eat!

This industry is made up of dedicated and specialised meat processors and butchers who produce all of the cuts of red meat we love to eat.

Most people know that beef comes from cattle, lamb from sheep and goat meat from a goat, but did you know that your different cuts of red meat are processed and made ready for sale and delivery to customers by meat processors and butchers?

Play an interactive, view videos and images, and read about this industry that produces much of our juicy and tender beef, lamb and goat meat that we enjoy eating. See **http://www.ampc.com.au/digital-interactive** and **http://www.ampc.com.au/education-training/school-resources/paddock-to-plate**

Investigate some of the different types of packaging the local butcher shop, supermarket meat cabinets contain and explore the variety of cuts of red meat such as steaks, fillets, sirloins, mince and roasts that are a 'Product of Australian Meat Processors'.

Your task is to design and produce a label for a type and cut of red meat with an info graphic that sequences the process of converting the beef, lamb or goat meat into a product suitable for sale.

It will need to be eye-catching to the consumer and identify an actual Australian locality and Australian Processor as the point of origin, and it needs to list the product's ingredients by name and quantity, along with its use-by date. It needs to include information for the consumer about how the cut of meat can be prepared for healthy eating.

You are also required to make a three minute presentation of the label to an audience and communicate how it can educate consumers about how red meat is processed in Australia.

The AMPC website can help out with lots of icons, information, and images for your red meat label.

Your challenge is to develop questions regarding how types of red meat are processed, packaged and labelled and then use a range of sources, objects and images to help you create your red meat label. Are you up for the challenge?

High, low and no tech options

High Tech: You can design and produce the label digitally using an app or software to create original graphics.

Low Tech: You can design and produce label using a standard computer, graphics provided and editing software.

No Tech: You can design and produce the label using art materials, poster board and hand written information and drawings.

Red meat labels

Have you ever seen these labels before? If so, where have you seen them and in what context?

What makes them memorable?

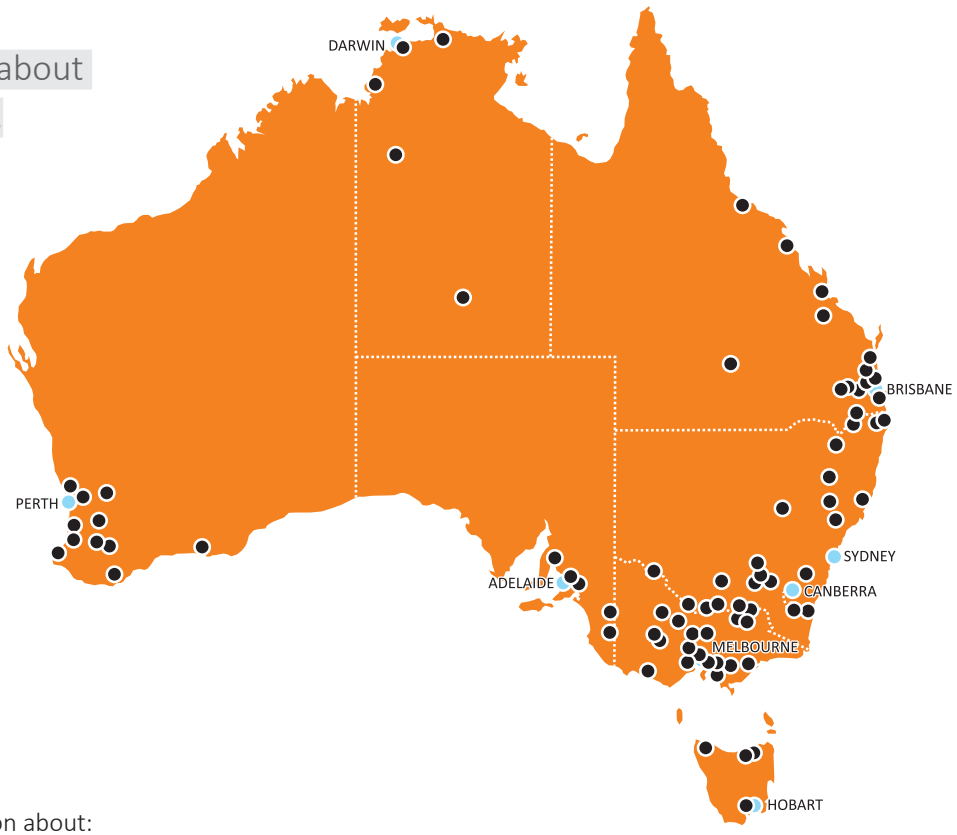
What information might they contain that is relevant to the consumer?

Define

Write a definition of the challenges you are to undertake.

Discover

Begin your research about red meat processing.



Collect and record information about:

- What red meat processing actually involves;
- What red meat processors and butchers might actually do;
- Where Australian meat processors are located;
- How meat processors and butchers convert beef, lamb and goat meat into a product; and
- How beef, lamb and goat meat gets from the paddock to our plates.

My notes:

References and Sources

From Paddock to Plate – the essential ingredients

View the image below to discover what's involved in the journey of a piece of beef, lamb or goat meat from the farm, to the butcher or supermarket shelf, fridge or freezer.

Dream

This is where you use the knowledge you've gathered to visualize a creative and appropriate solution. This is a whole-mind process where we imagine what the solution will appear like as it would in the future. Instead of asking "why" we ask "why not." The question of "what's the worst that could happen" becomes "what's the best that could happen."

Consider the many possible ways you can design and create a label for a cut of red meat that includes:

- an info graphic that sequences the process of converting the type of red meat into a product for sale;
- identifies and Australian locality and Meat Processor as the point of origin;
- lists the product's ingredients by name and quantity, along with its use-by date; and
- include information for the consumer about how the cut of meat can be prepared for healthy eating?

Think about the questions posed below and record your 'draft' solutions.

- How will you design your label and create the accompanying info graphic?
- How will your label describe the cut of meat's points of origin?
- How will your label list ingredients by name and quantity, as well as its use-by date?
- How will your label include information for the consumer about how the cut of meat can be prepared for healthy eating?
- How might you present your label to an audience and communicate how it can educate consumers about how red meat is processed in Australia?
- What might you have to do to make your design idea possible?
- What might it include?
- What might it be focussed on?
- How might it be created?
- What are the different ways it could be created?

This is your chance to make a truly informative and creative label and educate consumers about how their red meat is processed in Australia!

Design

Commence by establishing your desired outcome; then visualise the various steps necessary to achieve the visualized solution in measurable, achievable steps.

Prepare a project plan to outline information that needs to be gathered, who is responsible, from where you will seek information and how it will be gathered. The plan should also include identifying the materials, tools and equipment and planning and production steps including time constraints required for making the label and accompanying presentation about how your label can educate consumers about meat processing in Australia.

What do I need to do?	How will I gather the information? How will I create my label?	When will I do this?	How can my product and processes be improved?
Gather and analyse information about the how and why red meat is processed and packaged in managed environments and prepared to enable people to grow and be healthy. Design a label for a type and cut of red meat. It needs to include an info graphic that sequences the process of converting the beef, lamb or goat meat into a product suitable for sale. Design an eye-catching label for the consumer that identifies an actual Australian locality and Australian Processor as the point of origin, and lists the product's ingredients by name and quantity, as well as its use-by date. It needs to include information for the consumer about how the cut of meat, can be prepared for healthy eating. Make a 3 minute presentation of the label and communicate how it can educate consumers about how red meat is processed in Australia.			

Use the Design Template of a Meat Tray

Deliver

This stage is the process by which the dream becomes a reality. It's where you actually implement the design to complete the solution to the problem in two separate steps:

Produce (actually creating the label in its working format), and Publish (presenting the finished label in your effort to educate consumers about how red meat is processed in Australia).

Use the following prompts to write your three minute presentation explaining your label and how it can educate consumers about how red meat is processed in Australia.

Write the introduction:

Write the body:

Write the conclusion:

Debrief

Self-Assessment – Things to improve

Student work examples from unit trials held in 2016.

AMPC

AUSTRALIAN MEAT PROCESSOR CORPORATION