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# Resource overview

# The business of food production

To increase understanding of agriculture, fisheries, fibre, forestry and food (primary industries) careers for students in years 7-12 to enable them to make informed career pathway choices.

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| These resources provide tasks focused on the Western Australian Curriculum within a primary industries context. |

## The business of food production

These activities challenge students to engage with the *Western Australian Humanities and Social Science Curriculum*, introducing the Economics and Business course to year 7 students. By considering how their needs and wants are met, students discover the interaction between consumers and Western Australian primary producers.

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| WA Curriculum focus This resource is designed to be a learning pathway for Year 7 HASS students to develop their understanding of the Western Australian Curriculum **Economics and Business** content descriptors for **Producing and consuming**:   * How consumers rely on businesses to meet their [needs](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/humanities-overview/glossary/needs) and [wants](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/humanities-overview/glossary/wants) ([ACHEK017](http://www.scootle.edu.au/ec/search?accContentId=ACHEK017)) * How businesses respond to the demands of consumers ([ACHEK017](http://www.scootle.edu.au/ec/search?accContentId=ACHEK017)) * Why businesses might set a certain price for a product and how they might adjust the price according to [demand](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/humanities-overview/glossary/demand) ([ACHEK017](http://www.scootle.edu.au/ec/search?accContentId=ACHEK017)) * Characteristics of entrepreneurs, including the behaviours and skills they bring to their businesses ([ACHEK019](http://www.scootle.edu.au/ec/search?accContentId=ACHEK019))   It also gives opportunity for students to develop the **general capabilities**:   * [Personal and social capability](https://k10outline.scsa.wa.edu.au/home/teaching/curriculum-browser/humanities-and-social-sciences) * [Ethical understanding](https://k10outline.scsa.wa.edu.au/home/teaching/curriculum-browser/humanities-and-social-sciences) * Literacy * Critical and creative thinking * Information and Communication Technology (ICT) capability   It further allows development of the **HASS Inquiry Skills**integral to the curriculum. |
| PRIMED focus To increase understanding of agriculture, fisheries, fibre, forestry and food (primary industries) careers for students in year 7 HASS to enable them to make informed career pathway choices.  This resource introduces students to a variety of careers. These may include:   |  |  |  |  | | --- | --- | --- | --- | | Agronomist            Accountant            Auctioneer            Banker - agribusiness            Butcher            Book Keeper            Brewer            Business manager            Chemist            Commodity trader            Contractor            Diesel mechanic            Drone operator            Driver - Machinery | Economist  Engineer  Earthmoving contractor  Electrician  Explorer  Farm owner/manager  Field officer  Florist  Financial advisor  Feedlot manager  HR Manager  Insurance broker  Journalist  Livestock agent | Lawyer  Landscaper  Market analyst  Mechanic  Machinery salesperson  Nursery manager  Nut producer  Operations manager  Occupational health and safety Advisor  Policy advisor  Pilot  Quality-assurance manager  Quarantine inspector | Real estate valuer  Refrigeration specialist  Rural Finance counsellor  Tree farmer  Truffle producer  Transport – logistics  Turf manager  University lecturer  Vegetable grower  Veterinarian  Vet nurse  Viticulturist  Winemaker  Waste management | |

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| Educational process | Teaching and learning activities | Teacher resources/Student activities |
| Engage Engage students and elicit prior knowledge | Producers and consumers: Activity 1 Students are introduced to the concept of needs and wants through a game.  After the game, students define the terms needs and wants and discuss the characteristics of wants in greater detail. They also consider how we satisfy our needs and wants and how to classify money. | Online resource:   * Needs and wants game   <<https://www.tigweb.org/images/tiged/docs/activities/267.pdf>>  Alternatively, use a ‘desert island’ style game where students are stranded and can only carry a limited number of items  Student worksheets:   * 1.1 Defining needs and wants * 1.2 Characteristics of wants * 1.3 Glossary activity |
| Explore Find out more about the concept, topic or idea | Producers and consumers: Activity 2 Students determine how they satisfy needs and wants and link to natural resources/primary producers. The focus is food items that are produced. | Online resource:   * Refresh ED resources   <<https://www.refreshedschools.health.wa.gov.au/curriculum-materials/understanding-food-systems/>>  Note: teachers required to register  Student worksheets:   * 2.1 Satisfying needs and wants * 2.2 Food supply chain |

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| Educational process | Teaching and learning activities | Teacher resources/Student activities |
| Explain 1 Use a variety of methods to collect relevant information and/or data from a range of appropriate sources, such as print, digital, audio, visual and [fieldwork](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/humanities-overview/glossary/fieldwork) | Producers and consumers: Activity 3 Students will Investigate the interdependence between producers and consumers by conducting research on a primary producer. They will be required to work in groups and present their findings to the class.  Students can play *The farm game* to consolidate their understanding. | Online resources:   * Primary Industries Education Foundation Australia (PIEFA) (n.d.) *The farm game*, Primezone website <<https://www.primezone.edu.au/resource/the-farm-game/>>   Student worksheet:   * 3.1 Interdependence of producers and consumers * 3.2 Recap and review |
| Explain 2 Use a variety of methods to collect relevant information and/or data from a range of appropriate sources, such as print, digital, audio, visual and [fieldwork](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/humanities-overview/glossary/fieldwork) | Producers and consumers: Activity 4 Students will discuss how they think businesses have responded to an external event – the coronavirus pandemic.  They will use the ABC News article to prepare a PMI (plus, minus, interesting) chart, outlining some of the impacts. | Online resource:   * Khadem, N (6 April 2020) ‘Coronavirus shifts consumer behaviour and helps some businesses boom’, *ABC (Australian Broadcasting Corporation)* <<https://www.abc.net.au/news/2020-04-06/coronavirus-shifts-consumer-behaviour-and-helps-businesses-boom/12119508>>   Student worksheet   * 4.1 Business response |

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| Educational process | Teaching and learning activities | Teacher resources/Student activities |
| Elaborate Extend understanding to a new context or make connections to additional concepts through a student-planned investigation | Producers and consumers: Activity 5 Students will investigate the demands of consumers and how businesses respond. They will use a SWOT (strengths, weaknesses, opportunities and threats) analysis tool to determine the impact of consumer trends and research businesses that offer products or services that align with current trends. | Student worksheet:   * 5.1 Food trends |
| Evaluate Students re-represent their understanding and reflect on their learning journey, and teachers collect evidence about the achievement of outcomes | Producers and consumers: Activity 6 Students will draw a mind map to demonstrate their understanding of the relationship between consumers and businesses. | Online resources:   * The Tech Train (19 May 2018) ‘Create a mind map in Microsoft Word using 3 little known tools’ [video], The Tech Train, YouTube <<https://www.youtube.com/watch?v=5XzFjjOpsR0>>   Student worksheet:   * 6.1 Mind map * 6.1a Mind map example * 6.2 Recap and review |

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| Educational process | Teaching and learning activities | Teacher resources/Student activities |
| Engage Engage students and elicit prior knowledge | Setting a price: Activity 7 Students will investigate how businesses develop a pricing strategy, using information from a government website. They will apply their knowledge to a new apple product on the market. | Online resources:   * Fruit West Co-operative (2020) <<https://www.fruitwest.com.au/bravo.htm>> * Fruit West (2021), bravoapples.com.au <<https://bravoapples.com.au/>> * Australian Government Business website (10 March 2021) ‘Develop a pricing strategy’, business.gov.au <<https://business.gov.au/products-and-services/develop-a-pricing-strategy>>   Student worksheet:   * 7.1 Determining a price * 7.2 Survey |
| Explore Find out more about the concept, topic or idea | Setting a price: Activity 8 Students will be introduced to the factors that affect demand and supply, and then consider the how producers can influence these. | Student Worksheet   * 8.1 Changes in demand and supply |

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| Educational process | Teaching and learning activities | Teacher resources/Student activities |
| Explain Use a variety of methods to collect relevant information and/or data from a range of appropriate sources, such as print, digital, audio, visual and [fieldwork](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/humanities-overview/glossary/fieldwork) | Setting a price: Activity 9 Students investigate the price of an ‘ugly’ fruit compared with a ‘perfect’ fruit to demonstrate how prices are set. They will gather data and draw conclusions from their findings. | Online resources:   * Koziol, M (1 April 2015) ‘“Ugly” fruits and vegetables the supermarkets reject’, *The Sydney Morning Herald*, <<https://www.smh.com.au/lifestyle/ugly-fruits-and-vegetables-the-supermarkets-reject-20150401-1mcilm.html>>   (This article dates back to 2015 but gives some good background information.)   * DoSomething! (n.d.) *Fast facts on food waste*, DoSomething! Foodwise website <<https://www.foodwise.com.au/foodwaste/food-waste-fast-facts/>>   Student worksheet:   * 9.1 Imperfect fruit and vegetables |
| Elaborate Extend understanding to a new context or make connections to additional concepts through a student-planned investigation | Setting a price: Activity 10 Students will be introduced to the ‘cost of production’ and consider how prices of raw materials impact the final price of a product. | Student worksheet:   * 10.1 From farm to café |

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| Educational process | Teaching and learning activities | | Teacher resources/Student activities | |
| Evaluate Students re-represent their understanding and reflect on their learning journey, and teachers collect evidence about the achievement of outcomes | | Setting a price: Activity 11 Students will:   * demonstrate their understanding of how prices are set by creating a canteen menu for their school * compare results from pricing methods to determine the final price of a particular menu item. | | Student worksheet:   * 11.1 Plan your canteen menu |
| Engage Engage students and elicit prior knowledge | | Entrepreneurs: Activity 12 Students are presented with the names of ‘famous’ entrepreneurs to elicit prior knowledge and lead into a discussion regarding the characteristics of an entrepreneur.  The main purpose of the accompanying worksheets is to determine the characteristics of an entrepreneur regardless of their business. | | Student worksheets:   * 12.1 Entrepreneurs * 12.2 Characteristics of entrepreneurs |
| Explore Find out more about the concept, topic or idea | | Entrepreneurs: Activity 13 Students will study Western Australian entrepreneurs involved in primary industries. | | PowerPoint Presentation – Western Australian entrepreneurs  Student worksheet   * 13.1 Character Corners |

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| Educational process | Teaching and learning activities | | Teacher resources/Student activities |
| Explain Use a variety of methods to collect relevant information and/or data from a range of appropriate sources, such as print, digital, audio, visual and [fieldwork](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/humanities-overview/glossary/fieldwork) | | Entrepreneurs: Activity 14 Using the information from the government website provided, students complete a table and an annotated timeline outlining the major agricultural innovations before and after colonisation.  Students can conduct further research on the developments mentioned in the text. | Online resource:   * IP (Intellectual Property) Australia blog (24 January 2017) ‘Agricultural innovation and food production’, IP Australia website<<https://www.ipaustralia.gov.au/about-us/news-and-community/blog/agricultural-innovation-and-food-production>>   Student worksheet:   * 14.1 Agricultural innovation and invention |
| Elaborate Extend understanding to a new context or make connections to additional concepts through a student-planned investigation | | Entrepreneurs: Activity 15: In this activity, students research one aspect of primary industry and create an invention/innovation that improves an aspect of the supply chain.  The challenge is based on the “shark Tank’ concept and can be adapted to suit your class. If necessary, provide a focus for consideration e.g. reducing waste, sustainability, time saving, future technology. | Online resource:   * ABC Education, 'How farmers use microchips on dairy farms', ABC Education <http://abcspla.sh/m/381786> accessed: 24 March 2021 * ABC Catalyst, 'Is robotics the future of cattle farming?', ABC Education   <http://abcspla.sh/m/3377195>  accessed: 24 March 2021   * ABC Gardening Australia, 'Growing mushrooms in coffee grounds', ABC Education   <http://abcspla.sh/m/2627219>  accessed: 24 March 2021   * ABC Education, 'Hens and eggs in mobile sheds', ABC Education   <http://abcspla.sh/m/3817895>  accessed: 24 March 2021  Student worksheet:   * 15.1 Think big challenge |

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| Educational process | Teaching and learning activities | | Teacher resources/Student activities |
| Evaluate Students re-represent their understanding and reflect on their learning journey, and teachers collect evidence about the achievement of outcomes | | ACTIVITY 16: Using the information gathered in the previous activities, students prepare a ‘Body Map’ to demonstrate their understanding of the characteristics of an entrepreneur. | Student worksheet   * 16.1 Body map |

# Teaching guide: The business of food production

## PRIMED mission

To increase understanding of agriculture, fisheries, fibre, forestry and food (primary industries) careers for students in year 7 Humanities and Social Sciences to enable them to make informed career pathway choices.

## Curriculum focus

This resource set is designed to be a learning pathway for Year 7 HASS students to develop their understanding of the **Economics and business** content descriptors for **Producing and consuming**:

* How consumers rely on businesses to meet their [needs](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/humanities-overview/glossary/needs) and [wants](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/humanities-overview/glossary/wants).(ACHEK017)
* How businesses respond to the demands of consumers. (ACHEK017)
* Why businesses might set a certain price for a product and how they might adjust the price according to [demand](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/humanities-overview/glossary/demand). (ACHEK017)
* Characteristics of entrepreneurs, including the behaviours and skills they bring to their businesses. (ACHEK019)

It also gives opportunity for students to develop the **General Capabilities**:

* [Personal and social capability](https://k10outline.scsa.wa.edu.au/home/teaching/curriculum-browser/humanities-and-social-sciences)
* [Ethical understanding](https://k10outline.scsa.wa.edu.au/home/teaching/curriculum-browser/humanities-and-social-sciences)
* Literacy
* Critical and creative thinking
* Information and Communication Technology (ICT) capability

It further allows development of the **HASS Inquiry Skills** integral to the WA Curriculum.

### Questioning and researching

* Construct a range of questions, propositions and/or [hypotheses](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/humanities-overview/glossary/hypotheses) (WAHASS65)
* Use a variety of methods to collect relevant information and/or data from a range of appropriate sources, such as print, digital, audio, visual and [fieldwork](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/humanities-overview/glossary/fieldwork) (WAHASS66)
* Select the best method for recording selected information and/or data (e.g. graphic organisers, such as structured overviews for classifying; mind maps, for identifying relationships and overviews; [fieldwork](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/humanities-overview/glossary/fieldwork), which may require sketch drawings, a list of observable [features](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/humanities-overview/glossary/features) and photographs) (WAHASS67)
* Use appropriate [ethical protocols](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/humanities-overview/glossary/ethical-protocols) to plan and conduct an inquiry (e.g. seek permission to use personal photos, seek permission when planning a visit to Aboriginal cultural land, use specific formats for acknowledging other people's information) (WAHASS69)

### Analysing

* Use criteria to select relevant information and/or data such as accuracy, reliability, currency and usefulness to the question (WAHASS70)
* Apply subject-specific skills and concepts in familiar and new situations (WAHASS74)

### Evaluating

* Draw [evidence](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/humanities-overview/glossary/evidence)-based conclusions by evaluating information and/or data to generate a range of alternatives and plan for action in response to contemporary events, challenges, developments, issues, problems and/or phenomena; make comparisons; evaluate costs (disadvantages) and benefits (advantages); and infer relationships (WAHASS75)

### Communicating and reflecting

* Represent information and/or data using appropriate formats to suit audience and purpose (e.g. tables/graphs, visual displays, models, timelines, maps, other graphic organisers) (WAHASS76)
* Reflect on learning to review original understandings and/or determine actions in response to events, challenges, developments, issues, problems and/or phenomena (WAHASS78)

## Activities

There are three series of activities that explore the following main themes of this resource set:

1. Producers and consumers – Activities 1 to 6
2. Setting a price – contains Activities 7 to 11
3. Entrepreneurs – Activities 12 to 16

## Main themes

The main themes of this resource set are:

* Needs and wants
* Characteristics of wants
* Interdependence of producers and consumers
* Determining prices
* Characteristics of entrepreneurs

## Learning resources and sequence: Producers and consumers

Content descriptors for Producers and consumers – Activities 1 to 6:

* How consumers rely on businesses to meet their [needs](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/humanities-overview/glossary/needs) and [wants](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/humanities-overview/glossary/wants)
* How businesses respond to the demands of consumers

### ACTIVITY 1

ENGAGE

EXPLORE

EXPLAIN 1

EXLAIN 2

ELABORATE

EVALUATE

#### Focus

This is an initial engagement activity where students are encouraged to determine the difference between needs and wants before outlining the characteristics of wants. The lesson also introduces key vocabulary.

#### Expected learning

Students will be able to:

* define needs and wants
* list the characteristics of wants
* explain how consumers satisfy needs and wants

#### Background information

In simple terms we define our:

* needs as necessary for survival
* wants as goods and services that make our life comfortable.

Teachers can change the definitions of needs and wants to match the student textbook or SCSA glossary.

Students are asked to discuss the characteristics of wants. Teachers should guide the conversation to ensure some or all of the following points are considered.

* Human wants are unlimited
* A particular want is satiable
* Wants are recurring
* Wants are complementary
* Wants are competitive
* Wants are alternative
* Wants vary in priority
* Wants vary according to person, place and time

#### Resources required

Online resources

* *Needs and wants game*, available at

<<https://www.tigweb.org/images/tiged/docs/activities/267.pdf>>

Alternatively, use a ‘desert island’ style game where students are stranded and can only carry a limited number of items.

Student worksheets:

* 1.1 Defining needs and wants
* 1.2 Characteristics of wants
* 1.3 Glossary activity

#### Instructions for suggested activities

##### Lesson 1

1. As an introductory activity, students play the *Needs and wants game* or ‘desert island’ style game.

The purpose is to define needs and wants. You can adjust the game’s ‘script’ to suit your class. Students should choose the items that are necessary for survival, such as securing food, water and shelter. The instructions suggest defining needs and wants before the game; however, we suggest allowing students to reach this conclusion themselves.

**Extension activity: debrief**

Discuss how the groups worked together to reach their decisions. Was there consensus or did one person dominate – discuss group norms and the importance of working together.

1. Students complete worksheet 1.1. This worksheet focuses on defining needs and allowing students to discuss items that are difficult to classify. For example, is a hamburger a need (because it is food) or a want (because it is a treat)? Money is often mentioned by students, but it is neither a need nor a want – money is a means of exchange.
2. As a plenary, students define needs and wants and give an example of each.

##### Lesson 2

1. As an introductory activity, engage students in a discussion:

* What do you want right now?
* How is that different to what your siblings/parents/friends might want?

1. Students complete worksheet 1.2. This activity focuses on the characteristics of wants. Students consider the needs and wants of different age groups to determine the characteristics of wants. They can discuss in small groups or as a class. Guide the final discussion to ensure that they have included the important points.

Alternative for worksheet: I have used ‘age’ to guide the discussion regarding wants. Other possibilities include location, family structure or levels of ‘wealth’. The outcome should be the same – the characteristics of wants.

1. Students complete worksheet 1.3. This is an introduction to the terms that will be used in subsequent lessons. Use it in a format relevant to your class.
2. As a plenary, students give an example of a want that demonstrates each of the characteristics listed on the Frayer Model graphic organiser (in worksheet 1.2).

### Activity 2

ENGAGE

EXPLORE

EXPLAIN 1

EXPLAIN 2

ELABORATE

EVALUATE

#### Focus

This activity is designed to show students that we satisfy our needs and wants by purchasing goods and services. An example from primary industry is used to introduce the factors of production and the food supply chain to demonstrate how goods and services are produced.

#### Expected learning

Students will be able to:

* Define the factors of production

#### Background information

The four factors of production are land, labour, capital and enterprise (entrepreneurship). They are the inputs needed for supply of goods and services.

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| **Factor of production** | **Examples** | **Return** |
| Land - all raw or natural resources, above or below ground | Minerals, crops, fish, animals  Physical place where economic activity is conducted.  Harnessing renewable energy sources | rent |
| Labour – all human effort involved in production | Workers - manual labour, service providers, specialists | wages |
| Capital resources - items used to aid production | Fixed e.g. factory, equipment,  Working capital e.g. items needed to produce other goods and services  Infrastructure e.g. transport networks | interest |
| Enterprise - combining the factors of production | Entrepreneurs (usually) provide financial capital and assume risk  Supply goods and services | profit |

The food supply chain is introduced to highlight how primary industry is involved in the production of food items.

For more information regarding the food supply chain see the RefreshEd website. Teachers need to register to access the site.

The plenary activity suggested for lesson 2 involves students stating 3 recalls from the lesson (what they remember), 2 Insights (what they have learnt) and 1 Question they now have. The idea comes from E. Frangenheim, E 2005, *Reflections on classroom thinking strategies,* SAGE Publications Ltd; USA.

#### Resources required

Student worksheets:

* 2.1 Satisfying needs and wants
* 2.2 Food supply chain

#### **Instructions for suggested activities**

##### Lesson 1

1. As an introductory activity, students complete the first task on worksheet 2.1: listing all the goods and services they have used this week. They should be able to generate a comprehensive list once they get started. Use their lists to lead into a class discussion about the resources required to produce the items.

**Extension activity: classification**

Discuss how the resources could be grouped together. Students will hopefully recognise possibilities such as the raw materials, the people involved and the infrastructure required.

1. Students complete the second task on worksheet 2.1. Explain the factors of production and apply them to the example given.

**Possible activity: apply the information**

Students could repeat the activity using one of the goods or services they have listed in their table.

1. Discuss the economic problem: One of the characteristics of wants is that they are unlimited. But resources are limited. And this creates the problem of **relative scarcity**.

At the time of writing, there were labour shortages in the farming sector, due to the coronavirus pandemic, that created a range of issues. An internet search will provide articles regarding these issues. Select an article that is relevant to your cohort and discuss how a shortage in one factor of production impacts the economy and access to particular goods and services. Use the relevant article(s) and a KWL (know, want and learn) chart to discuss further.

1. As a plenary, students define the factors of production and state which one is ‘most’ important and why.

##### Lesson 2

1. In the previous lesson, students considered the factors of production involved in producing particular goods or services. In this lesson, as an introductory activity, ask students to extend that idea and consider the ‘journey’ from raw material(s) to finished product(s), the Food Supply Chain.

Discuss the flow diagram and example on worksheet 2.2.

Students choose one of the food items they have listed on worksheet 2.1 and research the food supply chain for that particular product. The Buy West Eat Best website <<https://www.buywesteatbest.org.au/about/members/>> has a number businesses listed for the majority of primary producers.

1. Students discuss their research with a partner and determine the similarities and difference.

Class discussion ideas:

* Do all goods follow the supply chain?
* Is the supply chain always linear?

1. As a plenary, students give three recalls, two insights and one question they now have.

### Activity 3

ENGAGE

EXPLORE

EXPLAIN 1

EXPLAIN 2

ELABORATE

EVALUATE

#### Focus

Students will investigate the interdependence of producers and consumers by conducting research.

#### Expected learning

Students will be able to:

* describe the interdependence of consumers and producers in the market.

#### Background information

The activity is based on *The farm game* resource available at <<https://www.primezone.edu.au/resource/the-farm-game/>>, developed by John Tucker c/o AgriFood Skills Australia, © AgriFood Skills Australia 2015, licensed under a Creative Commons Attribution 3.0 Australia licence.

Download the resource from the Primezone website and consider these adaptations:

* Use the examples from worksheet 3.1 to set the scene before students play the game (because they will be Western Australian examples).
* Worksheet 3.1 corresponds to Work Task 1 of *The farm game* and includes an example, the Sweeter Banana Co-operative, based in Carnarvon. The material was sourced from the Sweeter Banana website <<http://www.sweeterbanana.com/>>

#### Resources required

Online resource:

* Primary Industries Education Foundation Australia (PIEFA) (n.d.) *The farm game*, Primezone website <<https://www.primezone.edu.au/resource/the-farm-game/>>

Student worksheets:

* 3.1 Interdependence of producers and consumers
* 3.2 Review and recap

#### Instructions for suggested activities

##### Lessons 1 and 2

1. As an introductory activity, ask students to recall and list some of the businesses they located while researching the food supply chain in Activity 2. Classify these as dairy farmers, livestock farmers, wheat/grain farmers, horticulturists, viticulturists or fisheries.

Move students into groups and allocate a type of producer to each group. The types of producers you allocate can be more specific, for example sheep for wool, sheep for meat and cattle for beef.

Read through the Sweeter Banana Co-operative example provided on worksheet 3.1 and discuss how the information can be presented in a PowerPoint.

1. In their groups, students conduct research as outlined on worksheet 3.1.
2. The groups present their findings to the class.  
   Discuss commonalities in the factors that affect businesses.
3. As a plenary, students list the most common factors that affect a business.

##### Lesson 3

Students complete *The farm game* as outlined in the Primezone resource. Full instructions are included on the resource. You can adapt it to your local area as appropriate.

##### Lesson 4

This is an optional lesson. It is included to allow for consolidation of the new ideas presented so far, and as a way for students to respond to the content descriptor.

1. As a class, brainstorm the content from the previous lessons (research and Farm Game).
2. Students to organise the ideas into relevant topics.
3. Students prepare a draft written response to the prompt on Worksheet 3.2.
4. Students edit and prepare final response.

**Alternative activity:**

After brainstorming, students create a diagram to represent how consumers rely on businesses.

### Activity 4

ENGAGE

EXPLORE

EXPLAIN 1

EXPLAIN 2

ELABORATE

EVALUATE

#### Focus

Students will consider how businesses have responded to consumer demand due to an ‘external’ event – the coronavirus pandemic.

#### Expected learning

Students will be able to:

* Explain how businesses respond to the demands of consumers.

#### Background information

There are a number of factors that will impact demand including

* Tastes and preferences
* Income
* Advertising
* Number of consumers
* Seasons
* Price of complementary or substitute goods and services
* Expectations regarding future supply

#### Resources required

This online news article discusses changes in consumer behaviour and how businesses have responded to the coronavirus pandemic:

* Khadem, N (6 April 2020) ‘Coronavirus shifts consumer behaviour and helps some businesses boom’, *ABC (Australian Broadcasting Corporation)* <<https://www.abc.net.au/news/2020-04-06/coronavirus-shifts-consumer-behaviour-and-helps-businesses-boom/12119508>>

Edit the article to suit your cohort.

Student worksheet:

* 4.1 Business response

#### Instructions for suggested activities

1. As an introductory activity, before students read the news article, complete the discussion task (choose a format that suits your class) and record ideas in the ‘Before reading’ column on worksheet 4.1.
2. Distribute the article for students to read.
3. While reading the article, students complete the PMI (plus, minus, interesting) chart on the worksheet. Discuss ideas at the end of the reading session. Students add ideas in the ‘After reading’ column.

Alternative activity:

Use a hot-potato classroom strategy to generate discussion, and record ideas in the reflection task on the worksheet.

1. Students complete the reflection task on the worksheet.
2. Discuss how each type of business is being impacted now, students complete the ‘and now?’ column.
3. As a plenary, students provide examples of how businesses responded to the demands of consumers during the pandemic.

### Activity 5

ENGAGE

EXPLORE

EXPLAIN 1

EXPLAIN 2

ELABORATE

EVALUATE

#### Focus

Students will consider how businesses respond to consumer demand based on trends in the food industry. Students will choose a trend and then research an example of a business that supplies goods or services that correspond to that trend.

#### Expected learning

Students will be able to:

* Identify current trends in the food industry.
* Provide examples of how businesses respond to the demands of consumers.

#### Background information

The trends listed are based on a variety of interactions with food, and provide an opportunity for students to extend their understanding regarding changes in demand. Some themes can be divided into subthemes, for example plant protein – soy, legumes, pea.

The SWOT (strengths, weaknesses, opportunities and threats) analysis task is designed to provide the background information, and the second task looks at the businesses that have responded to consumer demand. Use a local business that focuses on one of these trends, if applicable to your location. You can modify the list to suit your cohort.

A number of factors contribute to these trends:

* social factors, for example consumer preferences
* government policy, for example deregulation of food industries
* technological factors, for example innovation within the industry
* physical factors, for example the impact on supply and quality of natural resources
* income growth
* urbanisation
* migrant populations
* access to information regarding trends in other parts of the world

Economics is a complex subject and there are many factors that contribute to the trends and the decisions that companies make – the focus of this activity is to demonstrate that companies *do* respond, not necessarily on *why* or *how* they do this.

#### Resources required

Student worksheet

* 5.1 food trends

#### Instructions for suggested activities

1. Introductory activity

Discuss food trends from the ‘past’ – if possible look at an old canteen menu, magazine articles or advertisements and compare to the current examples. Lead into a discussion about the factors that contribute to changes in the food industry. Other discussion points might include greengrocers, butchers, and bakeries being replaced by supermarkets; migrant populations influencing demand for ingredients or products; government sponsored advertising aimed at healthy lifestyles or increased access to information regarding benefits or impacts of particular products.

**Alternative activity:**

Ask students to interview their parents or grandparents and discuss trends over time. What information is available now compared to when they were children?

1. Discuss the food trends listed on worksheet 5.1. What do students already know? How can they find out more? Complete the SWOT activity and share ideas via class discussion.
2. Students complete the second activity on Worksheet 5.1 – investigate companies that have responded to the demands of consumers.
3. Students to complete the last activity on Worksheet 5.1 – infographic. Share with class using an activity that suits your class e.g. a gallery walks, presentations
4. As a plenary, students answer the following *Which trend(s) do you think will become the ‘new normal’? Explain your choice.*

### Activity 6

ENGAGE

EXPLORE

EXPLAIN 1

EXPLAIN 2

ELABORATE

EVALUATE

#### Focus

The purpose of this activity is to enable students to reflect on what they have learnt and demonstrate their understanding of the content descriptors.

#### Expected learning

Students will be able to:

* Re-present information and/or data using appropriate formats to suit audience and purpose.

#### Background information

A mind map is suggested as the initial activity, using the key vocabulary for this topic. The finished product can be used to scaffold a written response to the content descriptor.

#### Resources required

Online resource:

* The Tech Train (19 May 2018) ‘Create a mind map in Microsoft Word using 3 little known tools’ [video], *The Tech Train*, YouTube <<https://www.youtube.com/watch?v=5XzFjjOpsR0>>

Student worksheets

* 6.1 Mind map
* 6.1a Mind map example
* 6.2 review and recap

##### Lesson 1

1. As a class, review lesson content from lessons 1 -5. Record response on board.
2. If required, show the clip listed in the resources. Students then create a mind map outlining the key points for each content descriptor.
3. Students add illustrations to their mind map.

##### Lesson 2

1. This is an optional lesson. I have included it to allow students to respond to the content descriptor. (Teacher discretion)
2. Using the mind map created in the previous lesson, students draft a written response to the content descriptor.
3. Students edit and prepare final response.

## Learning resources and sequence: Setting a price

Content descriptor for Setting a price – Activities 7 to 11:

* Why businesses might set a certain price for a product and how they might adjust the price according to demand

### Activity 7

ENGAGE

EXPLORE

EXPLAIN

ELABORATE

EVALUATE

#### Focus

This activity is designed to engage students in the new topic and provide information regarding different pricing strategies.

#### Expected learning

Students will be able to:

* List the different pricing strategies that businesses can consider.
* Use a variety of methods to collect relevant information and/or data from a range of appropriate sources, such as print, digital, audio, visual and [fieldwork](https://k10outline.scsa.wa.edu.au/home/p-10-curriculum/curriculum-browser/syllabus/humanities-overview/glossary/fieldwork)

#### Background information

The Bravo™ apple is used in this activity as it is a Western Australian product. Find more information on these websites:

* Fruit West Co-operative (2020) <<https://www.fruitwest.com.au/bravo.htm>>
* Fruit West (2021), bravoapples.com.au <<https://bravoapples.com.au/>>

A summary of the pricing strategies is included on worksheet 7.1. If appropriate, you can transfer this information on to a PowerPoint presentation for your class.

There are many factors to consider when setting a price. For Year 7s, keep it simple and mention covering costs and making a profit. There is some useful information on this website – discuss in as much detail as appropriate for your class.

* Australian Government Business website (10 March 2021) ‘Develop a pricing strategy’, business.gov.au <<https://business.gov.au/products-and-services/develop-a-pricing-strategy>>

#### Resources required

Online resources:

* <<https://www.fruitwest.com.au/bravo.htm>>
* <<https://bravoapples.com.au/>>
* <<https://www.abc.net.au/news/2020-10-05/australias-unique-bravo-apple-cosmetic-colour-rules-wa-growers/12727500>>

Student worksheets

* 7.1 Determining a price
* 7.2 Survey

#### Instructions for suggested activities

##### Lesson 1 and lesson 2

1. As an introductory activity, conduct the following quick quiz.

Quick quiz – teacher to read out and students jot down answers.

* How many varieties of apples are there in the world? (approx. 7500)
* How many varieties are grown in Australia? (12)
* How many can you name? (Royal gala, smitten, golden delicious, red delicious, fuji, Pink lady, modi, eve, rocket, granny smith, envy, bravo, jazz, Sundowner/Joya, kanzi)
* Where are apples grown in WA? (Perth Hills, Manjimup and Donnybrook)
* When are apples in season? (January to May)
* When are apples available? (all year – different varieties)

1. Introduce the topic - How do businesses a price?

Provide the context: Students will be setting a price for the Bravo™ Apple.

1. As a class, discuss pricing strategies outlined on the worksheet – consider the advantages and disadvantages of each strategy.
2. Complete worksheet 7.1.

**Step 1**: discuss the attributes of apples, students to complete the ‘+’ chart.

**Step 2**: teacher to provide 4 (or less) samples of apples for students to try based on what is available in your local area. (Include a Bravo apple if possible.) Students to complete the taste test table.

The class can add one or two other attributes to the table if they wish.

**Step 3**: Check the varieties and prices of apples in your local area.

**Step 4**: Conduct surveys – worksheet 7-2. Decide as a class how many people to survey each. (this will need to be done as homework and results collated in the next lesson)

Collate and interpret results in class.

**Step 5**: Research the Bravo apple variety using the websites provided.

**Step 6**: Determine a price for the Bravo™ Apple.

**Step 7**: Prepare an advertisement highlighting the features of the apple and the price.

|  |
| --- |
| **Extension:** Provide fictitious supply scenarios that will affect the price set.  For example: -   1. It’s been a really good season and there is a bumper crop this year. 2. There is significant pest damage of fruit and quality is lower than expected. 3. A frost during apple formation growth phase destroyed 50% of potential fruit. 4. There is an oversupply of fruit and new season apples are competing with lasts years cold-stored stock. |
|  |
| **Extension:** Consider reading and discussing the points raised in the article provided. |

1. As a plenary, display advertisements and vote for the ‘best’ ad – conduct a class discussion to decide on criteria before voting.

### Activity 8

ENGAGE

EXPLORE

EXPLAIN

ELABORATE

EVALUATE

#### Focus

This activity is designed to introduce the factors that affect demand and supply.

#### Expected learning

Students will be able to:

* List the factors (other than price) that affect demand and supply

#### Background information

There are a number of factors that affect demand and supply.

|  |  |
| --- | --- |
| **Demand** | **Supply** |
| * Income of consumers * Changes in taste or preferences * Changes in population demographics * Price of substitute goods * Price of complementary goods * Advertising * Seasons * Expectation of future prices | * Cost of production * Technological advances * Government policies * Weather events (where applicable) * Consumer trends |

Year 7’s need to be aware of the factors and understand that they may increase or decrease the demand or supply of a given good or service.

The ABC News article <<https://www.abc.net.au/news/2020-10-05/australias-unique-bravo-apple-cosmetic-colour-rules-wa-growers/12727500>> is an example of how policies can cause changes in supply and how these can impact producers. Use as required to suit your class.

#### Resources required

Online resource:

* Hayes, J (5 October 2020) ‘Australia's unique Bravo apple held back by cosmetic colour requirements, growers say’, *ABC* <<https://www.abc.net.au/news/2020-10-05/australias-unique-bravo-apple-cosmetic-colour-rules-wa-growers/12727500>>

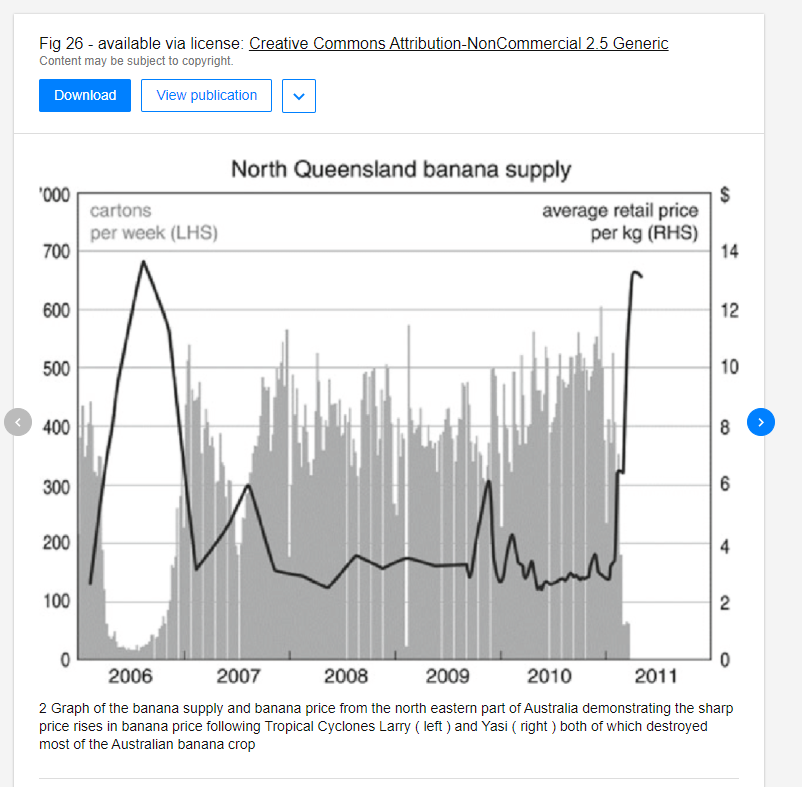
Student worksheet

* 8.1 Changes in demand and supply

#### Instructions for suggested activities

1. Introductory activity  
   Complete the first activity on the worksheet. This can be done as a class discussion; Think, Pair, Share or similar activity.
2. Inform the class of the different factors (background information) with examples that are relevant to your situation. Add to the worksheet if necessary
3. As a class, discuss which factors the producer of apples can control.
4. If suitable for your class, read the article from last year and discuss the factors that affect supply and demand.
5. As a plenary, Choose 5 factors that affect demand or supply and find examples to demonstrate the impact on price.   
   For example: Weather events – Cyclones have impacted the price of bananas in WA and QLD. (See attached graph)

Alternatively: provide examples and ask if they will affect demand or supply.



<https://www.researchgate.net/figure/Graph-of-the-banana-supply-and-banana-price-from-the-north-eastern-part-of-Australia_fig2_311169893>

### Activity 9

ENGAGE

EXPLORE

EXPLAIN

ELABORATE

EVALUATE

#### Focus

The focus of this activity is to consider prices set for ‘seconds’ in the fruit and vegetable (produce) industry, compared with those of the highest quality products, to encourage consumers to purchase them.

#### Expected learning

Students will be able to:

* Describe an example of a pricing strategy.

#### Background information

The campaigns to market and sell ‘ugly’ fruit and vegetables are based on reducing the waste created by consumers demanding perfection. Several articles and websites discuss this trend, including those listed in Resources required.

There are strategies to address the issue of waste, including:

* selling the ‘ugly’ fruit and vegetables at a lower price point
* using the fruit and vegetables to create other products. For example, supermarkets create cauliflower rice and zucchini noodles, and small businesses may create other products, such as chutneys and sauces. Bumbak's Preserves and Ice-Creams <<https://www.carnarvon.org.au/play/western-australia/australia-s-north-west/carnarvon/bumbaks-preserves-ice-creams>> is a Carnarvon-based example of a business that uses local produce to create preserves and ice-creams.

You may like to discuss this issue of waste in more detail and how businesses that use the produce to create alternative products set their prices.

If you set worksheet 9.1’s ‘fieldwork’ research task for homework, you can complete Activity 10 and then return to this lesson.

#### Resources required

Online resources:

* Koziol, M (1 April 2015) ‘“Ugly” fruits and vegetables the supermarkets reject’, *The Sydney Morning Herald* <<https://www.smh.com.au/lifestyle/ugly-fruits-and-vegetables-the-supermarkets-reject-20150401-1mcilm.html>>

(This article dates back to 2015 but gives some good background information.)

* DoSomething! (n.d.) *Fast facts on food waste*, DoSomething! Foodwise website <<https://www.foodwise.com.au/foodwaste/food-waste-fast-facts/>>
* <https://iview.abc.net.au/video/DC1724H004S00>

Student worksheet:

* 9.1 Imperfect fruit and vegetables

#### Instructions for suggested activities

1. As an introductory activity,
   * 1. Watch the following clip from the War on Waste series:

<https://iview.abc.net.au/video/DC1724H004S00>

* + 1. Conduct a discussion activity, for example – 4 Corners, based on the following statement (or similar).

**'Consumers and producers need to be aware of waste. Producers should offer products at a reduced cost to limit future waste and consumers should be prepared to purchase less than perfect goods '**

Students strongly agree, agree, disagree or strongly disagree.

Group students according to their response. In the group, discuss reasons for their response and present a summary to the class.

Students allowed to move groups after the discussion.

1. Present a scenario such as…. You are a fruit grower and 30% of your fruit has been rejected by buyers due to marks, size and shape. What are the options for this fruit?

(Hopefully students will suggest some or all of the following - waste, sell it cheaper, use it to make other products)

Students complete the first activity on the worksheet – Venn diagram

An alternative presentation to the worksheet is to provide examples of fruit and vegetables for the students to study or prepare a PowerPoint presentation with multiple examples.

1. Discuss the requirements of the ‘fieldwork’ - set as a homework task or use online sources.
2. Complete the final activity – As a class, discuss the conclusions students noted.
3. As a plenary, students explain which pricing strategy has been used to market ‘imperfect’ fruit and vegetables.

### Activity 10

ENGAGE

EXPLORE

EXPLAIN

ELABORATE

EVALUATE

#### Focus

In this activity, students are given the opportunity to think about fruit and vegetables further along the food supply chain, and consider the price of a ‘processed’ product.

#### Expected learning

Students will be able to:

* Explain the impact of prices changes in raw materials on a finished product.

#### Background information

Students have been introduced to the food supply chain and the various pricing strategies that can be applied to goods and services. This activity extends their understanding and allows them to make connections between concepts previously discussed.

The example is fictional and can be adjusted to reflect the average prices in your local area. At the time of writing, avocado prices increased due to a drop in supply and the end of the season approaching. Use an example relevant to the time of study; you could substitute avocados with another product that is in season.

#### Resources required

Student worksheet

* 10.1 From farm to café

#### Instructions for suggested activities

1. As an introductory activity, discuss how cafe owners determine the price of a menu item. Talk about the pricing strategies from earlier activities, the food supply chain and covering the costs of the factors of production.
2. Students complete worksheet 10.1 individually, or in pairs or small groups.
3. Students present their solutions to the class.
4. As a plenary, students choose their preferred solution and list the positive and negative aspects of the chosen solution.

### Activity 11

ENGAGE

EXPLORE

EXPLAIN

ELABORATE

EVALUATE

#### Focus

The final activity provides an opportunity for students to demonstrate their understanding of pricing strategies that businesses might use to set a price for a product.

#### Expected learning

Students will be able to:

* Understand and apply pricing strategies

#### Background information

Most school canteen menus change with the seasons. Terms 1 and 4 tend to be the same and Terms 2 and 3 often have different options. If your school doesn’t have a canteen, you should be able to access canteen menus on the websites of larger schools.

The idea of this task is to apply three different pricing strategies to determine if the final price is the same. Students will need to do some research.

#### Resources required

Student worksheet:

* 11.1 Plan your canteen menu

#### Instructions for suggested activities

1. As an introductory activity, brainstorm with students what they have learnt from this series of activities.
2. Students complete worksheet 11.1.
3. As a plenary, ask students what factors may cause the canteen management to change the price of an item on the menu.

## Learning resources and sequence: Entrepreneurs

Content descriptor for Entrepreneurs – Activities 12 to 16:

* Characteristics of entrepreneurs, including the behaviours and skills they bring to their businesses

### Activity 12

ENGAGE

EXPLORE

EXPLAIN

ELABORATE

EVALUATE

#### Focus

This is an initial engagement activity where students are challenged to consider the characteristics of an entrepreneur, based on investigation and class discussion.

#### Expected learning

Students will be able to:

* generate a list of characteristics that describe entrepreneurs
* discuss the contributions of entrepreneurs to society.

#### Background information

Studies have been conducted since the 18th century to determine the characteristics of an entrepreneur and what leads to success. The various conclusions provide many points of view, extensive descriptions and lists of characteristics. While entrepreneurs share many common characteristics, there is a wide range of personalities, abilities and training involved in becoming a successful entrepreneur.

Not all entrepreneurs follow the same path or have the same skills or training, but they do share some characteristics that enable success.

These suggested characteristics are examples of the types of characteristics to elicit from students as they complete the activities:

* Passionate: they love what they do and are motivated by achieving their goals rather than earning money.
* Self-confident: they hold a belief that they can be successful and deserve to be successful. Self-confidence allows them to overcome problems and setbacks.
* Self-reliant: they are self-starters and decision-makers. They don’t rely on others to tell them what to do.
* Risk-taking: they understand that taking risks is a natural part of following their dreams and achieving their goals.
* Creative: their creativity allows entrepreneurs to develop ideas but also to find alternative solutions when issues arise.

Other terms that may come up during discussions include drive, persistence, hardworking, thrive on competition, willing to learn, information-seekers, responsible, inquisitive, good communication skills and customer-focused.

#### Resources required

Student worksheet

* 12.1 Entrepreneurs
* 12.2 Characteristics of entrepreneurs

#### Instructional procedures

#### Instructions for suggested activities

1. As an introductory activity, students complete worksheet 12.1’s matching task. The purpose of the task is to encourage students to share their initial thoughts regarding entrepreneurship by looking at ‘famous’ entrepreneurs. They should be familiar with some or all of those listed.

When students have done the task, conduct a class discussion and summarise their ideas.

##### Extension activities:

* Remove the names of the entrepreneurs and/or the names of their companies from the worksheet.
* Students conduct research on the entrepreneurs or their companies.

Note: Modify the examples based on student experiences.

1. Students complete the questions on the worksheet. These questions are designed to transition students from thinking about famous entrepreneurs to the ‘everyday’ entrepreneur. If required, introduce the terms primary, secondary and tertiary sectors/industries in relation to what the entrepreneur/company contributes to society.
2. Before they start worksheet 12.2, ask students to share their answers to the 12.1 questions and their descriptions of the entrepreneurs they know. (For some students, it may be family members that they are describing.)
3. Students complete the ‘Think, pair, share’ task on worksheet 12.2. The purpose of this task is to focus on the characteristics of an entrepreneur, based on the famous examples and the descriptions students have written in worksheet 12.1.

When students have completed the table, conduct a class discussion and list the characteristics suggested by the class. If you use a particular textbook, compare the list generated with the information in the text and add anything missing to the list, if required.

**Extension:**

* Define the characteristics and/or look for examples.
* Invite a local entrepreneur to speak to the class/cohort and ask them to tell their story. Forward the list of characteristics to the guest speaker and ask them to focus on some or all of them.

1. As a plenary, students complete the Y-chart on the worksheet. The purpose of this task is to enable students to:

* process the information from the previous activities
* demonstrate their understanding of what it is like to be an entrepreneur.

**Extension:**

* Remove the prompts from the diagram.

### Activity 13

ENGAGE

EXPLORE

EXPLAIN

ELABORATE

EVALUATE

#### Focus

This activity is an introduction to West Australian entrepreneurs in primary industries with a focus on food production. Students will be introduced to examples of entrepreneurs and decide who they would like to investigate further. It provides an opportunity for students to share their thoughts with others in a safe and accountable classroom.

#### Expected learning

Students will be able to:

* discuss examples of West Australian entrepreneurs

#### Background information

The PowerPoint is designed to be modified. Use local entrepreneurs if possible.

#### Resources required

Student worksheet

* 13.1 Character Corners
* 13.0 – Western Australian entrepreneurs (PowerPoint presentation)

#### Instructional procedures

This activity is designed to introduce students to entrepreneurs from the Primary Sector – food production examples.

1. As an introductory activity, show the PowerPoint presentation to class.
2. Complete Worksheet 13.1 – Character Corners. This is a discussion activity that requires students to critically think about ‘everyday’ entrepreneurs and how the skills and characteristics required to be successful are similar to ‘famous’ entrepreneurs.
3. One person form each group presents their group ideas to the class.
4. As a plenary, create a T-chart outlining the similarities and difference between ‘everyday’ and ‘famous’ entrepreneurs.

### Activity 14

ENGAGE

EXPLORE

EXPLAIN

ELABORATE

EVALUATE

#### Focus

In this activity, students investigate the history of agricultural innovation in Australia.

#### Expected learning

Students will be able to:

* discuss Australian innovations and/or inventions in farming and food production over time
* summarise and present information from a variety of sources

#### Background information

The information featured in the worksheet is from a blog on the Australian Government’s IP (Intellectual Property) Australia website. Before starting the activity, it would be useful to provide students with some background information regarding intellectual property, trademarks and patents in relation to new ideas, innovation and invention.

The material is general in nature and can be used as an introduction to any innovations or inventions in your local area.

#### Resources required

Online resource:

* IP Australia blog (24 January 2017) ‘Agricultural innovation and food production’, IP Australia website<<https://www.ipaustralia.gov.au/about-us/news-and-community/blog/agricultural-innovation-and-food-production>>

Student worksheet:

* 14.1 Agricultural innovation and invention

#### Instructions for suggested activities

1. As an introductory activity, hand out worksheet 14.1 and discuss students’ ideas regarding the innovations of Aboriginal and Torres Strait Islander peoples with respect to food collection and production. Some images have been included in the worksheet, but these may be removed and/or students may draw their ideas.
2. Access the IP Australia website’s blog about agricultural innovation and food production. Depending on your class, students can either read the information independently and complete the table in the worksheet as they go or work together as a class in a teacher-guided lesson.

A ‘Questions you now have’ column is included in the table to encourage higher-order thinking skills. Conduct a class discussion around the questions they have generated or ask students to undertake research to find answers.

1. Students complete the last task on the worksheet – create an annotated timeline showing innovation in food production. They have the opportunity to conduct further research to include in the timeline. Discuss with the class the most effective way to show innovations before and after colonisation.
2. As a plenary, students explain why innovation and invention are necessary.

### Activity 15

ENGAGE

EXPLORE

EXPLAIN

ELABORATE

EVALUATE

#### Focus

In this activity, students research one aspect of primary industry and create an invention/innovation that improves an aspect of the supply chain.

#### Expected learning

Students will be able to:

* Identify a problem/opportunity in the supply chain and understand how providing a unique idea will improve their community.
* Develop research, planning and presentation skills.

#### Background information

The competition style activity is designed to engage students by allowing them to choose an aspect of agriculture that interests them. It also allows them to engage in higher order thinking skills by creating and presenting a new idea based on prior learning.

If appropriate for your cohort, introduce the concept of the triple bottom line. The triple bottom line considers the social, environmental and financial benefits of an organisation. These elements are sometimes referred to as people, planet and profit.

Provide an ‘award’ for the best presentation.

#### Resources required

Online resources:

* There are a number of short videos on the ABC education website that provide examples of innovation in primary industry.

ABC Education, 'How farmers use microchips on dairy farms', ABC Education

<http://abcspla.sh/m/3817863>

accessed: 24 March 2021

ABC Catalyst, 'Is robotics the future of cattle farming?', ABC Education

<http://abcspla.sh/m/3377195>

accessed: 24 March 2021

ABC Gardening Australia, 'Growing mushrooms in coffee grounds', ABC Education

<http://abcspla.sh/m/2627219>

accessed: 24 March 2021

ABC Education, 'Hens and eggs in mobile sheds', ABC Education

<http://abcspla.sh/m/3817895>

accessed: 24 March 2021

Student worksheet

* 15.1 Think big challenge

#### Instructions for suggested activities

1. As an introductory activity, review the inventions and innovations highlighted in the previous lesson. Discuss how they have solved a problem and/or value added to one of the supply chain elements.

Show students one or more of the videos listed and briefly consider the advantages of the invention/innovation.

1. Students complete the task on worksheet 15.1 – Think big challenge.

The challenge is based on the “shark Tank’ concept and can be adapted to suit your class. If necessary, provide a focus for consideration e.g. reducing waste, sustainability, time saving, future technology.

1. Students to present their ideas to the class for judging. Decide on criteria and system for choosing the winner.

### Activity 16

ENGAGE

EXPLORE

EXPLAIN

ELABORATE

EVALUATE

#### Focus

In this activity, the focus is on students demonstrating an understanding of the characteristics of an entrepreneur.

#### Expected learning

Students will be able to:

* List and explain the characteristics of an entrepreneur

#### Background information

The body map in worksheet 16.1 allows students to consolidate their understanding from all the activities in Entrepreneurs and apply the information.

#### Resources required

Student worksheet

* 16.1 Body map

#### Instructional procedures

1. Introductory activity: Create a brainstorm/mind map with the class to summarise their learning from activities 11 - 15.
2. Students complete worksheet 16.1. The body map allows for a higher level of application as students are required to think about how an entrepreneur might think, feel and behave.
3. As a plenary, students respond to the questions: Does an entrepreneur need to demonstrate all the characteristics? Why or why not?