



Government of **Western Australia**  
School Curriculum and Standards Authority

# FOOD SCIENCE AND TECHNOLOGY

GENERAL COURSE

---

Year 11 syllabus

## **IMPORTANT INFORMATION**

This syllabus is effective from 1 January 2015.

Users of this syllabus are responsible for checking its currency.

Syllabuses are formally reviewed by the School Curriculum and Standards Authority on a cyclical basis, typically every five years.

### **Copyright**

© School Curriculum and Standards Authority, 2013.

This document – apart from any third party copyright material contained in it – may be freely copied, or communicated on an intranet, for non-commercial purposes in educational institutions, provided that the School Curriculum and Standards Authority is acknowledged as the copyright owner, and that the Authority's moral rights are not infringed.

Copying or communication for any other purpose can be done only within the terms of the *Copyright Act 1968* or with prior written permission of the School Curriculum and Standards Authority. Copying or communication of any third party copyright material can be done only within the terms of the *Copyright Act 1968* or with permission of the copyright owners.

Any content in this document that has been derived from the Australian Curriculum may be used under the terms of the [Creative Commons Attribution-NonCommercial 3.0 Australia licence](https://creativecommons.org/licenses/by-nc/3.0/au/)

# Content

---

<b>Rationale</b> .....	<b>1</b>
<b>Course outcomes</b> .....	<b>2</b>
<b>Organisation</b> .....	<b>3</b>
Structure of the syllabus .....	3
Organisation of content .....	4
Progression from the Year 7–10 curriculum .....	5
Representation of the general capabilities .....	5
Representation of the cross-curriculum priorities .....	7
<b>Unit 1 – Food choices and health</b> .....	<b>8</b>
Unit description .....	8
Unit content .....	8
<b>Unit 2 – Food for communities</b> .....	<b>11</b>
Unit description .....	11
Unit content .....	11
<b>School-based assessment</b> .....	<b>14</b>
Grading .....	15
<b>Appendix 1 – Grade descriptions Year 11</b> .....	<b>16</b>



## Rationale

Food impacts every aspect of daily life and is essential for maintaining overall health and wellbeing. The application of science and technology plays an important role in understanding how the properties of food are used to meet the needs of consumers and producers. Food laws and regulations govern the production, supply and distribution of safe foods. Students develop practical food-related skills, understandings and attitudes that enhance their problem-solving abilities and decision-making skills.

In the Food Science and Technology General course, students develop their interests and skills through the design, production and management of food-related tasks. They develop knowledge of the sensory, physical, chemical and functional properties of food and apply these in practical situations. Students explore innovations in science and technology and changing consumer demands. New and emerging foods encourage the design, development and marketing of a range of products, services and systems.

Food and allied health sectors represent a robust and expanding area of the Australian and global employment markets. The Food Science and Technology General course enables students to connect with further education, training and employment pathways and enhances employability and career opportunities in areas that include nutrition, health, food and beverage manufacturing, food processing, community services, hospitality, and retail.

## Course outcomes

The Food Science and Technology General course is designed to facilitate achievement of the following outcomes.

### Outcome 1 – Understanding food

Students understand foods are used and processed to meet identified needs.

In achieving this outcome, students:

- understand the properties of foods and related equipment used to meet needs
- understand foods are used to meet the body's needs
- understand the nature and operation of food-related systems.

### Outcome 2 – Developing food opportunities

Students apply the technology process to develop food-related products, services or systems.

In achieving this outcome, students:

- investigate issues, values, needs and opportunities
- devise and generate ideas and prepare production proposals
- organise, implement and manage production processes in food-related environments
- produce food products, services or systems
- evaluate plans, results and actions.

### Outcome 3 – Working in food environments

Students apply skills and operational procedures to work in productive food-related environments.

In achieving this outcome, students:

- apply self-management and communication skills in food-related environments
- apply organisational skills when undertaking food-related challenges and activities
- apply operational procedures and practical skills to safely meet defined standards.

### Outcome 4 – Understanding food in society

Students apply skills and operational procedures to work in productive food-related environments.

In achieving this outcome, students:

- understand that beliefs and values of consumers and producers impact on food-related technologies
- understand that resource management decisions affect developments in food-related industries
- understand the importance of safe, sustainable practices when developing and using food-related technologies.

## Organisation

This course is organised into a Year 11 syllabus and a Year 12 syllabus. The cognitive complexity of the syllabus content increases from Year 11 to Year 12.

### Structure of the syllabus

The Year 11 syllabus is divided into two units, each of one semester duration, which are typically delivered as a pair. The notional time for each unit is 55 class contact hours.

#### Unit 1 – Food choices and health

This unit focuses on the sensory and physical properties of food that affect the consumption of raw and processed foods. Students investigate balanced diets, the function of nutrients in the body and apply nutrition concepts that promote healthy eating. They study health and environmental issues that arise from lifestyle choices and investigate factors which influence the purchase of locally produced commodities.

Students devise food products, interpret and adapt recipes to prepare healthy meals and snacks that meet individual needs. They demonstrate a variety of mise-en-place and precision cutting skills, and processing techniques to ensure that safe food handling practices prevent food contamination. Students recognise the importance of using appropriate equipment, accurate measurement and work individually, and in teams, to generate food products and systems.

#### Unit 2 – Food for communities

This unit focuses on the supply of staple foods and the factors that influence adolescent food choices and ethical considerations. Students recognise factors, including processing systems, that affect the sensory and physical properties of staple foods. They explore food sources and the role of macronutrients and water for health, and nutrition-related health conditions, such as coeliac and lactose intolerance, which often require specialised diets. Students consider how food and beverage labelling and packaging requirements protect consumers and ensure the supply of safe, quality foods.

Students work with a range of staple foods, adapt basic recipes and apply the technology process to investigate, devise, and produce food products to achieve specific dietary requirements. They evaluate food products and demonstrate a variety of safe workplace procedures, processing techniques and food handling practices.

Each unit includes:

- a unit description – a short description of the focus of the unit
- unit content – the content to be taught and learned.

## Organisation of content

For each unit, the content is organised into:

- Nature of food
- Processing food
- Food in society.

### Nature of food

#### Food as a commodity

Food commodities come from many different sources and can be classified as either animal or plant and raw or processed. The variety of a raw food influences its potential use and performance during processing. Staple food commodities constitute the dominant portion of diets and provide the basis for planning and producing meals and snack foods. As individuals choose and purchase food, they consider economic, environmental, nutritional and social factors. The supply of staple foods can be affected by cost, climate, seasons and natural disasters. The continuous supply of food is achieved through safe and efficient primary and secondary processes that convert raw food into quality food products.

#### Properties of food

Foods are complex mixtures of substances composed of nutrients and chemical compounds. These mixtures, and how they are combined and processed, give foods their sensory and physical properties. The changes that occur during food preparation, processing and storage impact on the sensory and physical properties, including changes in appearance, texture and flavour.

#### Nutrition

Ensuring a balanced diet appropriate to individual needs requires an understanding of food values, the food source, the role of specific macronutrients in the body and the balance required for optimal health. Macronutrient requirements can alter depending on age and lifestyle. An understanding of appropriate adolescent nutritional requirements and the importance of a balanced diet, including the consumption of a wide variety of foods, is required for good health. Nutrition-related health conditions, such as coeliac and lactose intolerances, often require specialised diets. Food selection models, Australian Dietary Guidelines and goal setting are used to achieve nutritional health and evaluate food intake.

### Processing food

#### Food products and processing systems

The technology process is implemented to develop and create food products, services and systems. Product proposals are used to guide the technology process and evaluate the final outcome. Food production skills include a range of precision cuts, mise-en-place strategies, accurate measurement, selecting and adapting recipes, accurate food orders, production plans, service management and safe operational practices when working with food and equipment. Food handling skills and processing techniques are used to improve physical appearance, palatability, digestibility and the nutritional value of food products. They are dependent on an understanding of the properties of food and ingredients and how their behaviour is changed during food handling and processing. A range of methods are used to test, report, evaluate and analyse food products and processing systems.

## Food in society

### Food issues

Beliefs and values that relate to needs, wants, lifestyles, health and living standards underpin food issues of individuals and communities. Factors influencing food choices are often guided by cost, availability, family values, peer group and nutritional needs. Media, advertising and marketing practices also influence food choices, particularly those made by adolescents. These choices impact health, some of which are not desirable. Health issues that arise from an imbalance of nutrients include malnutrition, underweight, overweight, allergies and intolerances. Informed consumers understand concepts, such as 'food miles' and environmental considerations when selecting, processing and evaluating food decisions.

### Laws and regulatory codes

Legal processes regulate the interaction between consumers and food-related enterprises. Consumer associations work to influence policy, legislation and practices impacting on systems that regulate food availability, safety and quality. Food handling practices, including the prevention of cross contamination, use of clean equipment and safe storage of raw and processed foods are regulated for health and safety of consumers and personnel in the food-related industry. Food labelling and packaging of raw and processed food and beverages in Australia is designed to protect and inform consumers when making food choices.

## Progression from the Year 7–10 curriculum

This syllabus continues to develop student knowledge, understandings and skills from both the Year 7–10 Technologies curriculum and the Year 7–10 Health and Physical Education curriculum.

## Representation of the general capabilities

The general capabilities encompass the knowledge, skills, behaviours and dispositions that will assist students to live and work successfully in the twenty-first century. Teachers may find opportunities to incorporate the capabilities into the teaching and learning program for the Food Science and Technology General course. The general capabilities are not assessed unless they are identified within the specified unit content.

### Literacy

Students develop literacy capability as they communicate ideas, concepts and detailed proposals for a variety of audiences. They comprehend and compose a range of visual and digital texts, read and interpret detailed written instructions, such as product proposals and recipes for devising, producing and analysing food products and processing systems. They prepare detailed specifications for production, evaluate sources of information that influence food choices and the health and wellbeing of individuals, families and communities in an organised, logical and coherent manner. They learn to understand and use language to discuss and communicate information, concepts and ideas related to the production of food products and systems.

## **Numeracy**

Students develop and apply numeracy knowledge and skills to gather, analyse, interpret and present information in numerical and graphical form, draw conclusions and make recommendations. They identify patterns and relationships in data and use these to identify trends in consumer choices, food innovation and food production practices. Students use numerical skills to calculate and estimate quantities and costings, and measure and record throughout the process of developing food products and production processes.

## **Information and communication technology capability**

Students develop information and communication technology (ICT) capability as they learn to use and apply ICT effectively and appropriately to access, create and communicate information and ideas, solve problems and work collaboratively. They develop the knowledge and skills to use digital technologies to locate, organise, analyse, represent and present information to create prototypes, and control and monitor processes. Students develop design ideas, generate production plans and communicate solutions when producing safe, quality food.

## **Critical and creative thinking**

Students develop capability in critical and creative thinking as they learn to generate and evaluate knowledge, clarify concepts and ideas, seek possibilities, consider alternatives and solve problems. They learn how to critically evaluate evidence, explore alternatives and share ideas by engaging in innovative practices in the provision of food products and food services for consumers.

## **Personal and social capability**

Students develop personal and social capability as they learn to understand themselves and others, and manage their relationships, appreciate their own strengths and abilities and develop a range of self-management and interpersonal skills. Students learn to work collaboratively and use management strategies that recognise strengths, promote negotiation, enhance leadership, personal and social resilience and encourage effective relationships within the workspace and in project management roles.

## **Ethical understanding**

Students develop ethical understanding as they identify and investigate the nature of ethical concepts, values and principles, and understand how reasoning can assist ethical judgement. They learn the importance of treating others with integrity, compassion and respect, value diversity and reflect on ethical principles of food choices considering animal welfare, fair trade and resource use. Students are encouraged to develop informed values and attitudes.

## **Intercultural understanding**

Students develop intercultural understanding as they learn about, and engage with, diverse cultures in ways that recognise commonalities and differences, and cultivate mutual respect, particularly when making food decisions. They develop an understanding of how culture shapes personal and social perspectives, and appreciate differences in beliefs and perspectives that may cause tension between individuals and groups. Students develop strategies to maintain and foster cultural diversity in the preparation, processing, storage, and presentation of food and during food service.

## **Representation of the cross-curriculum priorities**

The cross-curriculum priorities address contemporary issues which students face in a globalised world. Teachers may find opportunities to incorporate the priorities into the teaching and learning program for the Food Science and Technology General course. The cross-curriculum priorities are not assessed unless they are identified within the specified unit content.

### **Aboriginal and Torres Strait Islander histories and cultures**

This course provides an opportunity for students to learn about, and appreciate, Aboriginal and Torres Strait Islander histories and cultures through similarities and differences in food sources, preparation methods and environmental practices. Students may explore a range of practices and strategies used within different communities to manage, maintain and promote healthy lifestyles and wellbeing of all members and ensure the sustainability of food sources from one season to the next.

### **Asia and Australia's engagement with Asia**

This course provides an opportunity to learn about the uniqueness and diversity of social structures and systems, ethnic backgrounds, cultures and food choices in communities within the Asia region. An understanding of Asia underpins the capacity of Australian students to be active and informed citizens, working together to build harmonious local, regional and global communities. Students may reflect on traditional, contemporary and emerging technological achievements in the supply, processing and development of varieties of fresh produce and influences on food choices, such as culture, traditions and ethical issues and lifestyle; all of which impact on Asia and Australia's engagement with Asia.

### **Sustainability**

This course provides an opportunity for students to learn how changes in Australian and global demographics, trends in life expectancy, the diversity and nature of society, technological advances and social, economic and environmental factors are related to sustainable development and supply of safe, fresh food. The sustainability priority provides insights into future generations and promotes sustainable farming and processing practices to meet the needs of the present population without compromising the ability of future generations to meet their food needs. Students evaluate the extent to which the process of supplying food embraces sustainability. They reflect on past and current farming and processing practices and assess new and emerging technologies from a sustainability perspective.

# Unit 1 – Food choices and health

## Unit description

This unit focuses on the sensory and physical properties of food that affect the consumption of raw and processed foods. Students investigate balanced diets, the function of nutrients in the body and apply nutrition concepts that promote healthy eating. They study health and environmental issues that arise from lifestyle choices and investigate factors which influence the purchase of locally produced commodities.

Students devise food products, interpret and adapt recipes to prepare healthy meals and snacks that meet individual needs. They demonstrate a variety of mise-en-place and precision cutting skills, and processing techniques to ensure that safe food handling practices prevent food contamination. Students recognise the importance of using appropriate equipment, accurate measurement and work individually and in teams to generate food products and systems.

## Unit content

This unit includes the knowledge, understandings and skills described below.

### Nature of food

#### Food as a commodity

- classification of food
  - animal
  - plant
  - raw
  - processed
- economic and environmental considerations when purchasing locally produced commodities
  - food availability
  - cost
  - 'food miles'
  - packaging
  - waste

#### Properties of food

- sensory properties that influence selection and use of raw and processed food
  - appearance
  - texture
  - aroma
  - flavour
  - sound
- physical properties that influence selection and use of raw and processed food
  - size
  - shape
  - colour
  - volume
  - viscosity

- effects of processing techniques on sensory and physical properties of food
  - change in appearance
  - change in texture
  - change in flavour

### **Nutrition**

- food sources and functions of nutrients and water in the body
  - protein
  - carbohydrates
  - vitamins
  - minerals
  - lipids
- nutritional requirements of adolescents
  - protein
  - calcium
  - iron
- use of food selection models and guides to evaluate diets
  - *Healthy Eating Pyramid (Nutrition Australia May 2015)*
  - *The Australian Guide to Healthy Eating*
  - *Australian Dietary Guidelines*
- importance of a balanced diet and the consumption of a wide variety of foods for health

### **Processing food**

#### **Food products and processing systems**

- investigate a raw and a processed food product
  - use
  - nutrition
  - cost
  - shelf life
- devise food products using raw and processed foods
  - adapt recipes to suit a purpose
  - interpret recipes
  - organise food orders and production plans
  - cost recipes
- produce food products using raw and processed foods
  - select and safely use appropriate equipment, such as knives and hot surfaces
  - measure ingredients using Australian Standard metric measurement
  - demonstrate mise-en-place and precision cutting skills
  - demonstrate safe food handling practices
  - demonstrate various methods of cooking
  - demonstrate teamwork skills, such as communication and collaboration
  - present safe, quality, palatable food

- evaluate food products developed from raw and processed foods
  - sensory properties
  - the effectiveness of skills, practices or processes
  - use relevant terminology

## **Food in society**

### **Food issues**

- factors that influence food choices
  - cost
  - food availability
  - family characteristics
  - peer group
  - nutritional value
- environmental issues that arise from food and lifestyle choices
  - food availability
  - 'food miles'
  - packaging
  - recycling and waste

### **Laws and regulatory codes**

- workplace regulations for safety and health
  - protective clothing and footwear
  - personal hygiene
  - emergency procedures
- safe food handling practices
  - safe storage of raw and processed foods
  - prevention of cross contamination
  - clean equipment
- Australian food labelling requirements
  - nutrition information panel
  - percentage labelling
  - name and/or description of the food
  - food recall information
  - information for allergy sufferers
  - date marking
  - ingredients list
  - country of origin
  - barcode
  - weights and measures

## Unit 2 – Food for communities

### Unit description

This unit focuses on the supply of staple foods and the factors that influence adolescent food choices and ethical considerations. Students recognise factors, including processing systems, that affect the sensory and physical properties of staple foods. They explore food sources and the role of macronutrients and water for health, and nutrition-related health conditions, such as coeliac and lactose intolerance, which often require specialised diets. Students consider how food and beverage labelling and packaging requirements protect consumers and ensure the supply of safe, quality foods.

Students work with a range of staple foods, adapt basic recipes and apply the technology process to investigate, devise, and produce food products to achieve specific dietary requirements. They evaluate food products and demonstrate a variety of safe workplace procedures, processing techniques and food handling practices.

### Unit content

This unit builds on the content covered in Unit 1.

This unit includes the knowledge, understandings and skills described below.

#### Nature of food

##### Food as a commodity

- staple food commodities readily available in Australia
- factors that affect the supply of staple food
  - food availability
  - cost
  - climate or seasons
  - natural disasters
- primary and secondary processes used to convert raw commodities into safe, quality food products

##### Properties of food

- sensory properties that influence selection and use of staple food
  - appearance
  - texture
  - aroma
  - flavour
  - sound
- physical properties that influence selection and use of staple food
  - size
  - shape
  - colour
  - volume
  - viscosity

- the effect of processing techniques on the sensory and physical properties of food
  - wet processing techniques
  - dry processing techniques
  - microwave cooking

### **Nutrition**

- food sources and role of macronutrients and water for health
  - protein: complete and incomplete
  - carbohydrates: starches, sugars, and fibre or cellulose
  - lipids: saturated fats and oils, and unsaturated fats and oils
- macronutrient requirements depending on age and lifestyle
  - protein
  - carbohydrates
  - lipids
- nutrition-related health conditions and the need for specialised diets
  - coeliac
  - lactose intolerance
- use of the *Australian Dietary Guidelines* to evaluate food choices
- reasons for vegetarian or vegan diets
  - health
  - ethical values
  - cultural
  - economic cost

### **Processing food**

#### **Food products and processing systems**

- investigate staple food products
  - use
  - nutrition
  - cost
  - shelf life
- devise food products using staple foods
  - adapt recipes to suit a purpose
  - interpret recipes
  - organise food orders and production plans
  - cost recipes
- produce food products using staple foods
  - select and safely use appropriate equipment
  - measure ingredients using Australian Standard metric measurement
  - demonstrate mise-en-place and precision cutting skills
  - demonstrate safe food handling practices
  - demonstrate wet processing techniques
  - demonstrate dry processing techniques
  - demonstrate microwave cooking
  - demonstrate teamwork skills, such as planning and problem solving
  - present safe, quality, palatable food

- evaluate food products developed from staple foods
  - product's sensory properties
  - effective use of skills, practices or processes
  - use of relevant terminology

## **Food in society**

### **Food issues**

- influences on adolescent food choices
  - use of celebrities, media practices, including music, body image, colour, fonts and graphics, and food styling techniques to market food products
  - advertising
  - marketing
- ethical influences on food choices, such as animal welfare, fair trade, resource use and country of origin
- health issues that arise from food choices
  - malnutrition
  - underweight
  - overweight
  - allergies
  - intolerances

### **Laws and regulatory codes**

- workplace regulations for safety and health
  - protective clothing and footwear
  - signage for procedures and hazards
  - safe posture, including lifting, bending and standing
  - emergency procedures
- safe food handling practices
  - safe storage and thawing of raw and processed foods
  - prevention of cross contamination
  - clean equipment and work surfaces
- labelling requirements for food and beverage products available in Australia
  - nutrition information panel
  - percentage labelling
  - name or description of the food
  - food recall information
  - information for allergy sufferers
  - date marking
  - ingredients list
  - country of origin
  - barcode
  - weights and measures

## School-based assessment

The Western Australian Certificate of Education (WACE) Manual contains essential information on principles, policies and procedures for school-based assessment that needs to be read in conjunction with this syllabus.

Teachers design school-based assessment tasks to meet the needs of students. The table below provides details of the assessment types for the Food Science and Technology General Year 11 syllabus and the weighting for each assessment type.

**Assessment table – Year 11**

Type of assessment	Weighting
<p><b>Investigation</b></p> <p>Directed research in which students plan, conduct and communicate an investigation of an issue related to Food Science and Technology. They apply processes to food-related practices, use a variety of investigative approaches to individually and/or collaboratively collect and interpret primary sources and produce secondary sources. Processes include testing, analysing, evaluating and communicating findings. The investigation can be presented as a written report or a multimedia presentation.</p> <p>Other evidence can include: practical investigations, investigation plans, self or peer evaluations and/or journal reflections.</p>	30%
<p><b>Production</b></p> <p>A production project in which students explore ideas, design products and/or implement production processes.</p> <p>Students manage a range of production processes, evaluating and modifying them as necessary. This includes making products, prototypes or implementing processes and systems in response to a proposal and evaluating design ideas while managing a range of production processes.</p> <p>Evidence can include: survey results, design ideas, recipes, nutritional values, sensory properties, food products, production plans, production processes, and/or food systems; modifications used to manage quality control, product test results, evaluation tools (target market group) and/or journal reflections.</p>	60%
<p><b>Response</b></p> <p>Students respond to questions which can require them to refer to stimuli or prompts, such as production practices, case studies, scenarios, and primary and secondary sources.</p> <p>Tasks can be conducted inside or outside class time. Students apply their understandings and skills to analyse, and/or interpret information, solve problems and/or answer questions. Formats can include short and extended written responses and/or oral presentations.</p> <p>Other evidence can include: situation analysis exercises, observation records and checklists, journal entries and/or self, peer or target group evaluations.</p>	10%

Teachers are required to use the assessment table to develop an assessment outline for the pair of units (or for a single unit where only one is being studied).

The assessment outline must:

- include a set of assessment tasks
- include a general description of each task
- indicate the unit content to be assessed
- indicate a weighting for each task and each assessment type
- include the approximate timing of each task (for example, the week the task is conducted, or the issue and submission dates for an extended task).

In the assessment outline for the pair of units, each assessment type must be included at least twice. In the assessment outline where a single unit is being studied, each assessment type must be included at least once.

The set of assessment tasks must provide a representative sampling of the content for Unit 1 and Unit 2.

Assessment tasks not administered under test/controlled conditions require appropriate validation/authentication processes. For example, a student performance for an investigation could be validated by a task (such as a structured essay, extended answer or evaluation of the sources used in the investigation) in class after the final presentation is submitted.

## Grading

Schools report student achievement in terms of the following grades:

Grade	Interpretation
<b>A</b>	Excellent achievement
<b>B</b>	High achievement
<b>C</b>	Satisfactory achievement
<b>D</b>	Limited achievement
<b>E</b>	Very low achievement

The teacher prepares a ranked list and assigns the student a grade for the pair of units (or for a unit where only one unit is being studied). The grade is based on the student's overall performance as judged by reference to a set of pre-determined standards. These standards are defined by grade descriptions and annotated work samples. The grade descriptions for the Food Science and Technology General Year 11 syllabus are provided in Appendix 1. They can also be accessed, together with annotated work samples, through the Guide to Grades link on the course page of the Authority website at [www.scsa.wa.edu.au](http://www.scsa.wa.edu.au)

To be assigned a grade, a student must have had the opportunity to complete the education program, including the assessment program (unless the school accepts that there are exceptional and justifiable circumstances).

Refer to the WACE Manual for further information about the use of a ranked list in the process of assigning grades.

## Appendix 1 – Grade descriptions Year 11

A	<p><b>Investigation</b></p> <p>Clearly describes a food-related issue.</p> <p>Gathers, organises and uses appropriate information and data from a range of reliable and relevant sources to investigate food-related issues. Develops detailed summaries of findings and presents concise, substantiated information, with relevant and supporting examples.</p> <p>Explains ideas and opinions, makes comparisons and provides appropriate recommendations to resolve a range of food-related issues. Forms valid and logical conclusions, using concise food science terminology.</p>
	<p><b>Production</b></p> <p>Manages time, equipment, and resources efficiently and appropriately. Makes decisions and justifies selection of suitable alternative preparation and processing techniques when required.</p> <p>Implements safe food handling practices, and applies appropriate workplace safety and health requirements. Shows initiative, such as identifying issues before they occur.</p> <p>Accurately interprets and adapts recipes/procedures to produce quality food products using raw, processed and staple foods. Organises, prepares and implements detailed costing, food orders and production plans.</p> <p>Consistently produces and presents quality, palatable food, implementing a range of appropriate food processing techniques, safety procedures, skills and practices. Critically evaluates the product produced considering a range of physical and sensory properties.</p>
	<p><b>Response</b></p> <p>Provides, with relevant examples, valid explanations for a range of food-related issues that occur due to the influence of properties of food, nutritive values, food choices and processing techniques.</p> <p>Provides well-developed and accurate responses, referring to relevant examples. Uses appropriate evidence to support a point of view and make detailed conclusions.</p> <p>Responds to the selection and use of raw, processed and staple foods in a logical and detailed format, using concise food science terminology.</p>
B	<p><b>Investigation</b></p> <p>Describes a food-related issue.</p> <p>Gathers, organises and uses information and data from reliable and relevant sources to investigate food-related issues. Develops summaries of findings and presents substantiated information, with relevant examples.</p> <p>Describes ideas and opinions, makes comparisons and provides appropriate recommendations to resolve food-related issues. Forms logical conclusions, using appropriate food science terminology.</p>
	<p><b>Production</b></p> <p>Manages time, equipment, and resources appropriately. Selects suitable alternative preparation and processing techniques when required.</p> <p>Regularly implements safe food handling practices, and often applies appropriate workplace safety and health requirements. Frequently shows initiative, such as identifying issues before they occur.</p> <p>Interprets and adapts recipes/procedures to produce quality food products using raw, processed and staple foods. Prepares and implements costing, food orders and production plans.</p> <p>Produces and presents quality, palatable food, implementing appropriate food processing techniques, safety procedures, skills and practices. Evaluates the product produced considering physical and sensory properties.</p>
	<p><b>Response</b></p> <p>Provides, with relevant examples, explanations for food-related issues that occur due to the influence of food properties, nutritive values, food choices, and processing techniques.</p> <p>Provides accurate responses, referring to relevant examples. Uses evidence to support a point of view and draw conclusions.</p> <p>Responds to the selection and use of raw, processed and staple foods with some detail, using appropriate food science terminology.</p>

C

**Investigation**

Identifies a food-related issue.

Uses mostly relevant information and data to investigate food-related issues. Develops broad, general summaries of some related information, with examples.

Identifies some ideas and opinions, notes similarities and differences, and provides some overall recommendations to resolve food-related issues. Forms simple conclusions, using some food science terminology.

**Production**

Uses time, equipment, and resources appropriately for simple tasks. Selects some preparation and processing techniques when required.

Uses some safe food handling practices, and workplace safety and health requirements.

Follows recipes/procedures to produce food products using raw, processed and/or staple foods.

Prepares and outlines costing, food orders and production plans.

Produces and presents food using some food processing techniques, safety procedures, skills and/or practices. Reviews the product produced considering some physical and sensory properties.

**Response**

Describes, with mostly relevant examples, food-related issues that occur due to the influence of some food properties, nutritive values, food choices, and/or processing techniques.

Provides mostly accurate responses, referring to some relevant examples. Outlines a point of view and makes general conclusions.

Responds to the selection and use of raw, processed and staple foods without detail, using some food science terminology.

D

**Investigation**

States a food-related issue.

Uses minimal information or data to investigate a food-related issue. Develops brief, unsubstantiated and superficial statements, with or without simple examples.

Paraphrases information and states personal opinions, often not appropriate, to resolve food-related issues. Forms a brief concluding statement, using minimal, simple food science terminology.

**Production**

Manages time, equipment and/or resources ineffectively. Often selects incorrect preparation or processing techniques.

Recognises and uses a limited range of safe food handling practices and workplace safety and health requirements.

Follows simple recipes/procedures to produce basic food products using raw, processed, or staple foods. Provides brief, incomplete food orders and outlines a minimal production plan.

Produces and presents simply prepared food using a limited range of safe skills and practices. States personal food preferences.

**Response**

States food-related issues that occur with limited connections to food properties, nutritive values, food choices, or processing techniques, with or without simple examples.

Provides brief responses mostly based on an example, with unsubstantiated statements.

Responds to the selection and use of raw, processed, and/or staple foods in brief and disorganised ways, with frequent errors, using minimal food science terminology.

E

Does not meet the requirements of a D grade and/or has completed insufficient assessment tasks to be assigned a higher grade.