

FOOD SCIENCE AND TECHNOLOGY

Unit 1B Product development

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Teaching and learning program – Food Science and Technology (Product development)

Unit 1B: Food, health and choices

Unit learning context: Develop healthy food products for adolescents

WEEK	CONTENT	LEARNING EXPERIENCES	RESOURCES	ASSESSMENT
1	<p>Classification of foods e.g. healthy nutritious foods, unhealthy foods</p> <p>Economic aspects of purchasing healthy/unhealthy food</p> <p>Sensory and physical properties that encourage the consumption of healthy foods</p>	<ul style="list-style-type: none"> • Student booklet containing following information: <ul style="list-style-type: none"> ○ syllabus Unit 1B pages 18-19 ○ unit outline ○ assessment outline ○ grade descriptors ○ school assessment policy • Discuss perceptions of healthy and unhealthy foods. Examine different labels on foods to decide if they could be healthy or unhealthy, explain the reasons <ul style="list-style-type: none"> ○ classify foods according to healthy, unhealthy, variety, storage, availability and cost • Economic aspects <ul style="list-style-type: none"> ○ costs involved with pricing of processed and takeaway foods e.g. labour, machinery, packaging ○ cost of purchasing fresh products and cooking at home • Motivational lesson Bread tasting <ul style="list-style-type: none"> ○ display a range of breads in tasting portions with the packaging also displayed e.g. matzos, pumpernickel, lavosh, naan, chappati, wholegrain, white, pita, Lebanese, Turkish, pappadam, sourdough ○ teacher commentary: cultural issues, grain from which the breads are made, country of origin, uses, leavened or unleavened, nutrients, preservatives ○ students to taste the breads, complete a table 	<p>Blake, G., Gualtieri, R., Fanning, A., and Cornius-Randall, R. (2004) <i>Food Technology First</i>, Port Melbourne, Vic.: Pearson Education Australia p 92 – 95.</p> <p>Heath, G., McKenzie, H. and Tully, L. (2008) <i>Food by Design 1</i> Port Melbourne, Vic.: Pearson Education Australia p 12 - 13.</p>	Introduce Task 1

	<p>Relevant terminology</p> <p>Workplace procedures for health and safety e.g. safe work techniques when using knives and equipment, handling hot surfaces, emergency procedures</p>	<p>identifying sensory properties and information from the commentary</p> <ul style="list-style-type: none"> • Distribute list of product development terminology • Emergency procedures <ul style="list-style-type: none"> ○ location of fire blanket ○ fire extinguisher ○ using equipment ○ evacuation procedures • Introduce Task 1 Marketplace Investigation <ul style="list-style-type: none"> ○ explain the task and discuss requirements ○ principles of product design e.g. balance, contrast, proportion, focus, environment, cost 	<p>Perraton, G. Boddy, G. Compton L. et al. (2006). <i>Food and Technology 2</i>, Queensland: John Wiley and Sons Australia Ltd. p.145</p>	
2	<p>Food selection models e.g. Healthy Eating Pyramid, The Australian Guide to Healthy Eating.</p> <p>Sensory and physical properties that encourage the consumption of healthy foods</p> <p>Safe and hygienic work practices when using equipment and appliances</p>	<ul style="list-style-type: none"> • Use computers to investigate the Healthy Diet Pyramid and The Australian Healthy Guide to Healthy Eating <ul style="list-style-type: none"> ○ students record personal food intake for one day using each model ○ analyse personal food intake using the AGHE ○ identify the influences on food choice ○ identify the personal physical, intellectual, emotional, social and spiritual needs and wants that define their eating habits • Practical lesson <ul style="list-style-type: none"> ○ methods of cooking – stewing ○ cutting using knives and equipment ○ Indian chicken curry with pappadams and naan bread ○ identify the physical and sensory properties of the completed dish 	<p>Blake, G., Gualtieri, R., Fanning, A., and Cornius-Randall, R. (2004) <i>Food Technology First</i>, Port Melbourne, Vic.: Pearson Education Australia p 2 – 13, p142 - 143.</p>	

3	<p>Balanced diets</p> <p>Influence of peer groups and the media on adolescents' food choices</p> <p>Influence of the media and food manufacturers on adolescent eating patterns</p> <p>Selection of appropriate equipment for stated purpose</p> <p>Safe personal presentation standards e.g. personal grooming and hygiene, appropriate clothing and footwear</p>	<ul style="list-style-type: none"> • What makes a balanced diet <ul style="list-style-type: none"> ○ use the AGHE to identify recommended daily serves ○ importance of eating from a wide variety of foods ○ the place of 'extra' foods in a balanced diet • Brainstorm media influence <ul style="list-style-type: none"> ○ access food manufacturers websites to identify promotional strategies targeting adolescents • Class discussion to identify peer influence • Discussion of influence of food manufacturers <ul style="list-style-type: none"> ○ promotional strategies e.g. junk mail, sponsorship, celebrity endorsement, free offers, supersizing • Practical lesson <ul style="list-style-type: none"> ○ methods of cooking – baking ○ minestrone soup served with individual dampers ○ use equipment correctly when making healthy lunch ○ students to complete personal checklist on hygiene, footwear and clothing 	<p>Blake, G., Gualtieri, R., Fanning, A., and Cornius-Randall, R. (2004) <i>Food Technology First</i>, Port Melbourne, Vic.: Pearson Education Australia p86 – 92, p20 - 21.</p> <p>Alexander, Y., Luscombe, J., and McNelly, E. (2008) <i>Food Science and Technology: A Resource for Units 1A-1B</i>. Western Australia. Impact Publishing. p154 – 193.</p>	
4	<p>Food labelling and advertising practices that protect the consumer.</p>	<ul style="list-style-type: none"> • Labelling laws and regulations <ul style="list-style-type: none"> ○ nutrition panel ○ ingredients ○ additives and preservatives ○ use-by date ○ manufacturer 	<p>HEIA. (2008) <i>Nutrition: the inside story</i>. Macquarie ACT. Home Economics Institute of Australia Inc. p64 – 70, p116 – 142, p150 - 163.</p>	

	<p>Producing food products, services or systems suitable to meet the needs of adolescents with health issues</p> <p>Sensory and physical properties that encourage the consumption of healthy foods</p>	<ul style="list-style-type: none"> ○ weight ● Advertising laws and regulations <ul style="list-style-type: none"> ○ ethical practices ○ TV prime time advertising ○ code of practice ● Practical lesson <ul style="list-style-type: none"> ○ produce a gluten free product suitable for a school lunch for an adolescent ○ nutritional requirements of those with coeliac condition ○ what foods to avoid, what can be consumed ○ availability of suitable commercial products ○ use FSANZ website to prepare a food nutrition label using the nutrition calculator ● Excursion <ul style="list-style-type: none"> ○ visit the local fresh food market and supermarket and investigate seasonal food ○ availability ○ cost ○ physical properties ○ cost of products that are not in season ● Class time to continue Task 1 		
5	<p>Conflicts between individual food preferences and nutrient requirements</p> <p>Preparation methods used to produce food products</p>	<ul style="list-style-type: none"> ● Effect on health of overconsumption of preferred foods if these are not healthy foods <ul style="list-style-type: none"> ○ cosy of unhealthy foods ○ environmental issues of waste disposal ○ students brainstorm influences on their own and their families, friends, and peers, food purchasing and selection habits 	<p>Blake, G., Gualtieri, R., Fanning, A., and Cornius-Randall, R. (2004) <i>Food Technology First</i>, Port Melbourne, Vic.: Pearson Education Australia .</p>	<p>Introduce Task 2 Part A Task 1 Due</p>

	<p>Cooking methods e.g. dry, moist (choose methods to suit focus)</p> <p>Workplace procedures for health and safety e.g. safe work techniques using knives and equipment, handling hot surfaces, emergency procedures</p>	<ul style="list-style-type: none"> • Practical lesson <ul style="list-style-type: none"> ○ methods of cooking, braising, baking ○ bread rolls ○ braised chicken in wholemeal bread rolls ○ work in pairs to produce recipe • use FSANZ website to prepare a food nutrition label using the nutrition calculator • Safety in the commercial kitchen • Introduce Task 2 Part B <ul style="list-style-type: none"> ○ explain the task and discuss requirements ○ select small teams 		
6	<p>Producing food products, services or systems suitable to meet the needs of adolescents with health issues</p> <p>Organisation of work using food orders and production plans</p> <p>Health and environmental issues that arise from food consumption and lifestyle patterns</p>	<ul style="list-style-type: none"> • Discussion and computer research to identify adolescent health issues e.g. coeliac disease, lactose intolerance, vegetarianism, diabetes, obesity • Practical lesson <ul style="list-style-type: none"> ○ recipe that caters for a particular dietary requirement ○ produce a product that is suitable for an adolescent that has a health issue ○ discuss and complete a production plan for the selected recipe • Continue Task 2 Part B • Computer research, environmental issues that arise from food consumption and lifestyle patterns <ul style="list-style-type: none"> ○ select from samples provided of newspaper articles reporting an adolescent health issue related to food consumption and lifestyle e.g. lack of exercise, drugs, alcohol, lack of food preparation skills, lack of nutrition knowledge 	<p>Blake, G., Gualtieri, R., Fanning, A., and Cornius-Randall, R. (2004) <i>Food Technology First</i>, Port Melbourne, Vic.: Pearson Education Australia Chapter 8.</p> <p>Burnett-Fell, B., Ferrie, S., Wootton, M., Dengate, H., Evans, K., Baines, S., and Stutchbury. (2009) <i>Food Technology in Action</i>. Milton, Qld. John Wiley and Sons. Chapter 19.</p>	Introduce Task 2 Part B

7	<p>Skills to participate in small-scale food productions</p> <p>Choosing recipes to suit a purpose</p> <p>Cooking methods e.g. dry, moist (choose methods to suit focus)</p> <p>Consideration of key design features of food products to address social and environmental needs</p>	<ul style="list-style-type: none"> • Practical lesson <ul style="list-style-type: none"> ○ baking bread without preservatives ○ group activity – students (in groups of four) select a cereal based bread recipe to form the basis of a healthy snack that is suitable for an adolescent school lunch ○ choose a bread recipe that can be cooked within time constraints ○ store products and compare results with the results of storing commercially made bread by the same method for the same time • Identify the key design features of the product to be produced <ul style="list-style-type: none"> ○ must hold a filling and retain the physical properties ○ needs to be transported ○ lack of refrigeration ○ will be kept for three to four hours • Hand in food order for Task 2 Part B. 	<p>Burnett-Fell, B., Ferrie, S., Wootton, M., Dengate, H., Evans, K., Baines, S., and Stutchbury. (2009) <i>Food Technology in Action</i>. Milton, Qld. John Wiley and Sons. Chapter 3.</p>	<p>Task 2 Part A Due</p>
8	<p>Effects of processing on physical properties of foods</p>	<ul style="list-style-type: none"> • Physical changes to foods when they are heated, cooled and manipulated <ul style="list-style-type: none"> ○ observe the effect of heating and cooling on apples ○ identify the physical properties e.g. colour, shape, size, texture ○ use sensory testing to evaluate sensory properties e.g. flavour, texture, aroma, appearance ○ use a microscope to observe the structure of apples prior to cooking and after cooking ○ complete a table on the change in the physical properties e.g. change in colour, softening of 	<p>Burnett-Fell, B., Ferrie, S., Wootton, M., Dengate, H., Evans, K., Baines, S., and Stutchbury. (2009) <i>Food Technology in Action</i>. Milton, Qld. John Wiley and Sons. Chapter 10.</p>	

	Workplace procedures for health and safety e.g. safe work techniques using knives and equipment, handling hot surfaces, emergency procedures	<p>fibre, change in flavour if cooked in a syrup</p> <ul style="list-style-type: none"> • Practical lesson <ul style="list-style-type: none"> ○ using the apple from the previous lesson make apple turnovers using sweet fruit bread. ○ complete a personal table on health and safety during the lesson • Produce a production plan for Task 2 Part B. 		
9	<p>Adapting recipes to suit design briefs</p> <p>Safe food handling practices and processing techniques used to ensure the quality and palatability of food</p> <p>Safe use and storage of equipment</p> <p>Cooking methods e.g. dry, moist (choose methods to suit focus)</p> <p>Producing food products, services or systems suitable to meet the needs of adolescents with health issues</p>	<ul style="list-style-type: none"> • Practical lesson <ul style="list-style-type: none"> ○ bread making to increase fibre ○ examine bread recipes ○ adapt to suit personal preference, and dietary requirements for adolescents ○ make a savoury loaf meeting all the requirements ○ use of the commercial oven – time, energy, carbon footprint to cook recipe. ○ cooking with steam 	Blake, G., Gualtieri, R., Fanning, A., and Cornius-Randall, R. (2004) <i>Food Technology First</i> , Port Melbourne, Vic.: Pearson Education Australia p138 – 141.	
10	Consideration of the beliefs and values of producers and	<ul style="list-style-type: none"> • Class discussion to identify beliefs and values of producers e.g. <ul style="list-style-type: none"> ○ increase market share 	Burnett-Fell, B., Ferrie, S., Wootton, M., Dengate, H., Evans, K., Baines, S., and	Task 2 Part B Due

	Selection of appropriate equipment for stated purpose	<ul style="list-style-type: none"> ○ dip and crudite platter with a range of different breads including pumpernickel, lavosh, Turkish bread <ul style="list-style-type: none"> ● Introduce Task 2 Part C 		
12	<p>Food labelling and advertising practices that protect the consumer</p> <p>Influence of the media and food manufacturers on adolescent eating patterns</p>	<ul style="list-style-type: none"> ● Media search to find advertising campaigns for bread by two manufacturers. Print <ul style="list-style-type: none"> ○ identify the marketing strategies used e.g. promote health, functional ingredients, fresh, homemade, lite etc ○ collect and examine bread packaging, identify marketing strategies on labelling ○ class discussion on labelling, serve size, nutrition information ○ class discussion on advertising targeting different market,s ● Introduce Task 2 Part C, commence task ● Introduce Task 3 commence task ● Hand out and explain guidelines for oral presentations 	<p>Blake, G., Gualtieri, R., Fanning, A., and Cornius-Randall, R. (2004) <i>Food Technology First</i>, Port Melbourne, Vic.: Pearson Education Australia p57 - 59.</p> <p>HEIA. (2008) <i>Nutrition: the inside story</i>. Macquarie ACT. Home Economics Institute of Australia Inc. p64 – 70.</p>	<p>Task 2 Part C Due</p> <p>Introduce Task3</p>
13	<p>Effects of processing on physical properties of foods</p> <p>Health and environmental issues that arise from food consumption and lifestyle patterns</p>	<ul style="list-style-type: none"> ● Experiment <ul style="list-style-type: none"> ○ observe the physical properties of fresh and stale eggs e.g. viscosity of the white and the yolk ○ eggs - use a microscope to determine the structure egg white and egg yolk prior to and after cooking ○ complete a table on the changes in physical properties ● Supermarket visit to identify and record innovations and trends in food products and food 	<p>Blake, G., Gualtieri, R., Fanning, A., and Cornius-Randall, R. (2004) <i>Food Technology First</i>, Port Melbourne, Vic.: Pearson Education Australia p54 - 58.</p>	

		<p>types</p> <ul style="list-style-type: none"> • Practical lesson <ul style="list-style-type: none"> ○ scrambled eggs on rye bread 		
14	<p>Influence of the media and food manufacturers on adolescent eating patterns</p> <p>Marketing practices</p>	<ul style="list-style-type: none"> • Brainstorm on foods available for purchase in the marketplace <ul style="list-style-type: none"> ○ watch television advertisements, identify new products advertised ○ analyse the innovative features of new products e.g. ingredients, packaging, heating, accompaniments • Practical lesson <ul style="list-style-type: none"> ○ toasted foccacia with healthy fillings 	<p>Blake, G., Gualtieri, R., Fanning, A., and Cornius-Randall, R. (2004) <i>Food Technology First</i>, Port Melbourne, Vic.: Pearson Education Australia p287 – 289.</p>	
15	<p>Marketing practices</p> <p>Relevant terminology</p> <p>Cooking methods e.g. dry, moist (choose methods to suit focus)</p>	<ul style="list-style-type: none"> • Guest to speak on marketing trends • Poster/Pamphlet for own product • Practical lesson <ul style="list-style-type: none"> ○ bread cases with savoury fillings e.g. roast pumpkin and feta 	<p>Burnett-Fell, B., Ferrie, S., Wootton, M., Dengate, H., Evans, K., Baines, S., and Stutchbury. (2009) <i>Food Technology in Action</i>. Milton, Qld. John Wiley and Sons. Chapter 16.</p>	Task 3 Due.

Assessment outline – Food Science and Technology (Product development)

Unit 1B: Food, health and choices

Unit learning context: Develop healthy food products for adolescents

Assessment type	Type weighting	Task weighting	Assessment task	Week due	Content	Outcome 1 Understanding food materials	Outcome 2 Developing food opportunities	Outcome 3 Working in food environments	Outcome 4 Understanding food in society
Investigation	20% (CC weighting 20-30%)	20%	Task 1 Part A Marketplace investigation	5	Food as a commodity Properties of food Nutrition Consumer and enterprise relationships	✓			✓
		10%	Task 2 Part A Devise healthy adolescent lunch products	7	Food as a commodity Properties of food Nutrition Technology process	✓	✓		
Production	50% (CC weighting 50-70%)	40%	Task 2 Part B Produce and evaluate healthy adolescent lunch products and demonstrate skills with food	9	Technology process Food practices and processing techniques Laws and regulations	✓	✓	✓	
		10%	Task 2 Part C Produce a product development brochure	12	Consumer and enterprise relationships		✓		
Response	20% (CC weighting 10-20%)	20%	Task 3 Small -scale oral presentation	15	Technology process Issues, trends and innovation		✓		✓

Assessment Task 1: Unit 1B FSTP

Task 1: Marketplace investigation

Assessment type:	Investigation
Outcomes:	Outcome 1: Understanding food materials Outcome 4: Understanding food in society
Unit context:	Develop healthy food products for adolescents
Task duration:	5 weeks
Task weighting:	20% of unit total

Task 1: Marketplace investigation (130 marks – 20%)

Work in small teams to investigate the range of breads available in the marketplace, the product design principles of breads and the food advertising practices used to promote sales. Individually present your findings in a written report that includes information in graphic form.

What you need to do:

1. Marketplace investigation

- Work in small teams and visit four different types of bread retail outlets e.g. supermarkets, specialty bread shops, ethnic food shops, growers markets
- Record the business name and type of each outlet and the time and date of the visit
- Identify four different types of bread available in the marketplace e.g. fresh, ethnic, frozen doughs, bread mixes, sweet, specialty, crisp, grain breads
- Identify four varieties of each of the four identified bread types
- Select one variety from each of the four bread types
- Record the name of each selected variety, the manufacturer, the cost and the weight of each bread variety as it is packaged for sale
- Obtain a sample of each selected variety of bread
- Refer to the Australian Guide to Healthy Eating to determine the sample serve size for bread and the recommended number of daily serves for an average adolescent
- Record the weight of a sample serve size of each identified variety of bread
- Explain two reasons why the weight of the four sample sizes may vary
- Calculate the cost of each of the four sample serve sizes
- Identify four uses of each of the four bread varieties
- Explain two product design principles of each of the four varieties e.g. health, cost, environmental issues, sensory properties, physical properties, technology, variety
- Examine the packaging of each of varieties of bread and list the health claims
- Examine the packaging of each of the four varieties of bread and list the promotional strategies used e.g. colour, uses, font size, illustrations, language
- Expose a sample of each variety of bread to air and warmth, record the results after one and two days, evaluate the results for each variety and describe the ingredients in each variety that could explain the difference in keeping quality
- Describe how each variety of bread should be stored.

2. Report writing

- Identify the information that can be presented in graphic form e.g. table, chart and devise an appropriate format
- Include an introduction that identifies the investigation issue
- Use correct punctuation, sentencing and paragraphs to organise accurate and relevant information

- Provide a logical conclusion
- Use an approved format to reference all information sources

What is required for assessment	Due date
<input type="checkbox"/> Report	Week 5

Marking key Task 1: Unit 1B FSTP

Marketplace investigation	Maximum mark /130
<ul style="list-style-type: none"> Works in small teams and visits four different types of bread retail outlets e.g. supermarkets, specialty bread shops, ethnic food shops, growers markets (1 mark each outlet) 	/4
<ul style="list-style-type: none"> Records the business name and type of each outlet and the time and date of the visit <ul style="list-style-type: none"> business name of four outlets (1 mark each) type of each of four outlets (1 mark each) time and date of visit to each of four outlets (1 mark each) 	/4 /4 /4
<ul style="list-style-type: none"> Identifies four different types of bread available in the marketplace e.g. fresh, ethnic, frozen doughs, bread mixes, sweet, specialty, crisp, grain breads (1 mark each) 	/4
<ul style="list-style-type: none"> Identifies four varieties of each of the four identified bread types (1 mark each variety for each of four types) 	/16
<ul style="list-style-type: none"> Selects one variety from each of four bread types (1 mark each) 	/4
<ul style="list-style-type: none"> Records the name of each selected variety, the manufacturer, the cost and the weight of each bread variety as it is packaged for sale <ul style="list-style-type: none"> manufacturer of each of four varieties (1 mark each) cost of each of four varieties (1 mark each) weight of each of four varieties (1 mark each) 	/4 /4 /4
<ul style="list-style-type: none"> Obtains a sample of each selected variety of bread (1 mark each) 	/4
<p>Refers to the Australian Guide to Healthy Eating to determine the sample serve size for bread and the recommended number of daily serves for an average adolescent (1 mark each)</p> <ul style="list-style-type: none"> refers to the AGHE determines sample serve size determines recommended number of daily serves 	/1 /1 /1
<ul style="list-style-type: none"> Records the weight of a sample serve size of each selected variety of bread (1 mark each variety) 	/4
<ul style="list-style-type: none"> Explains one reason why the weight of the four sample sizes may vary (1 mark each reason) 	/1
<ul style="list-style-type: none"> Calculates the cost of each of the four sample serve sizes (1 mark each variety) 	/4
<ul style="list-style-type: none"> Identifies four uses of each of the four bread varieties (1 mark each use for each of four varieties) 	/16
<ul style="list-style-type: none"> Explains two product design principles of each of the four varieties e.g. health, cost, environmental issues, sensory properties, physical properties, technology, variety (1 mark each design principle for each of four varieties) 	/8
<ul style="list-style-type: none"> Examines the packaging of each of varieties of bread and lists the health claims (1 mark for each variety) 	/4
<ul style="list-style-type: none"> Examines the packaging on each of the four varieties of bread and lists the promotional strategies used e.g. colour, uses, font size, illustrations, language (1 mark each variety) 	/4

<ul style="list-style-type: none"> • Exposes a sample of each variety of bread to air and warmth, records the results after one and two days, evaluates the results for each variety and describes the ingredients in each variety that could explain the difference in keeping quality <ul style="list-style-type: none"> ○ exposes each of four varieties to air /4 ○ exposes each of four varieties to warmth /4 ○ evaluates the results for four varieties /4 ○ describes the ingredients in each variety to explain differences (1 mark each variety for each criteria) /4 	
<ul style="list-style-type: none"> • Describes how each variety of bread should be stored (1 mark each variety) /4 	
Total - Marketplace investigation	/120
Report writing	
<ul style="list-style-type: none"> • Identifies the information that can be presented in graphic form e.g. table, chart and devises an appropriate format <ul style="list-style-type: none"> ○ identifies information /1 ○ devises an appropriate format (1 mark each) /1 	
<ul style="list-style-type: none"> • Includes an introduction that identifies the investigation issue (1 mark) /1 	
<ul style="list-style-type: none"> • Uses correct punctuation, sentencing and paragraphs to organise accurate and relevant information <ul style="list-style-type: none"> ○ correct punctuation /1 ○ correct sentencing /1 ○ correct paragraphing /1 ○ organises accurate and relevant information (1 mark each) /1 	
<ul style="list-style-type: none"> • Provides a logical conclusion (1 mark) /1 	
<ul style="list-style-type: none"> • Uses an approved format to reference all information sources <ul style="list-style-type: none"> ○ uses an approved format /1 ○ includes all information sources (1 mark each) /1 	
Total - Essay writing	/10
TASK TOTAL	/130

Teacher comment:

Assessment Task 2 Part A: Unit 1BFSTP

Task 2 Part A: Devise healthy adolescent lunch products

Assessment Type:	Investigation
Outcomes:	Outcome 1: Understanding food materials. Outcome 2: Developing food opportunities.
Unit Context:	Devise healthy food products for adolescents.
Task Duration:	3 weeks
Task Weighting:	10% of unit total

Task 2 Part A: Devise healthy adolescent lunch products (60 marks – 10%)

Devise sweet and savoury healthy adolescent lunch products that include commercially produced bread as either an ingredient or an accompaniment. One product is to be for a restaurant and the other for a take-away lunch bar. Each product is to include a variety of commodities and cost a maximum of three dollars. Present work in a report.

What you need to do:

- Work in small teams and use recipe books websites or other sources to collect three savoury and three sweet recipes suitable for a healthy lunch for an adolescent, that include commercially produced bread
- Explain the six nutrition messages in the Australian Guide to Healthy Eating (AGHE)
- Investigate options and identify six seasonal commodities that could be included in the products
- Incorporate a minimum of one seasonal commodity in each product
- Incorporate three commodities, each from a different food group, not including breads and cereals, in each product
- Include a minimum of one different bread variety in each recipe
- Evaluate the recipes according to health and adolescent acceptability and select one savoury and one sweet recipe
- Devise one product for a restaurant and the other for a take-away lunch bar. Provide two reasons for the selection of each recipe
- Adapt the recipes to devise products that meet task requirements
- Explain the innovative features of each product. Compare and contrast to other products on the market
- Adapt the recipes to produce two portions of each product
- Enter the ingredients from the two products onto pie diagram template from the AGHE
- Describe how the products reflect each of the AGHE nutrition messages
- Explain and justify three reasons why the products are, or are not, balanced
- Use secondary resources to cost the two products
- Produce an accurate food order and submit it on time
- Produce a detailed production plan to produce the two products and clean the kitchen, in 150 minutes

What is required for assessment	Due dates
<input type="checkbox"/> Food order	Week 6
<input type="checkbox"/> Report	Week 7

Marking key Task 2 Part A: Unit 1B FSTP

Devise healthy adolescent lunch products	Maximum mark /60
<ul style="list-style-type: none"> • Works in small teams and uses recipe books websites or other sources to collect three savoury and three sweet recipes, suitable for a healthy lunch for an adolescent, that include commercially produced bread <ul style="list-style-type: none"> ○ works effectively in a small team (1 mark) ○ collects three savoury and three sweet recipes (1 mark) 	 /1 /1
<ul style="list-style-type: none"> • Explains the six nutrition messages in the Australian Guide to Healthy Eating (AGHE) 	/6
<ul style="list-style-type: none"> • Investigates options and identifies six seasonal commodities that could be included in the products <ul style="list-style-type: none"> ○ identifies six commodities (1 mark each) 	/6
<ul style="list-style-type: none"> • Incorporates a minimum of one seasonal commodity in each product (1 mark each product) 	/2
<ul style="list-style-type: none"> • Incorporates three commodities, each from a different food group, not including breads and cereals, in each product <ul style="list-style-type: none"> ○ incorporates three commodities (1 mark each) 	/3
<ul style="list-style-type: none"> • Include a minimum of one different bread variety in each recipe (1 mark each recipe) 	/2
<ul style="list-style-type: none"> • Evaluates the recipes according to health and adolescent acceptability and selects one savoury and one sweet recipe <ul style="list-style-type: none"> ○ evaluates according to health (1 mark each recipe) ○ evaluates according to suitability for adolescents (1 mark each recipe) ○ selects one savoury and one sweet recipe (1 mark each) 	 /2 /2 /2
<ul style="list-style-type: none"> • Devises one product for a restaurant and the other for a take-away lunch bar. Provides two reasons for the selection of each recipe (1 mark each reason for each recipe) 	/4
<ul style="list-style-type: none"> • Adapts the recipes to devise products that meet task requirements <ul style="list-style-type: none"> ○ savoury recipe ○ sweet recipe 	 /1 /1
<ul style="list-style-type: none"> • Explains the innovative features of each product. Compares and contrasts to other products on the market (1 mark each product) 	/2
<ul style="list-style-type: none"> • Adapts the recipes to produce two portions of each product (1 mark each product) 	/2
<ul style="list-style-type: none"> • Enters the ingredients from the two products onto pie diagram template from the AGHE (1 mark each food group correctly entered) 	/5
<ul style="list-style-type: none"> • Describes how the products reflect each of the six AGHE nutrition messages (1 mark each) 	/6
<ul style="list-style-type: none"> • Explains three reasons why the products are, or are not, balanced (1 mark each reason for each product) 	/6
<ul style="list-style-type: none"> • Uses secondary resources to cost the two products (1 mark each product) 	/2

<ul style="list-style-type: none"> • Produces an accurate food order and submits it on time <ul style="list-style-type: none"> ○ accurate ○ submitted on time (1 mark each) 	 /1 /1
<ul style="list-style-type: none"> • Produces a detailed production plan to produce the two products and clean the kitchen, in 150 minutes <ul style="list-style-type: none"> ○ includes all tasks ○ includes realistic time allocations (1 mark each) 	 /1 /1
TASK TOTAL	/60

Teacher comment:

Assessment Task 2 Part B: Unit 1B FSTP

Task 2 Part B: Produce healthy adolescent lunch products

Assessment type:	Production
Outcomes:	Outcome 1: Understanding food materials Outcome 2: Developing food opportunities Outcome 3: Working in food environments
Unit context:	Developing healthy food products
Task duration:	3 weeks
Task weighting:	40% of unit total

Task 2 Part B: Produce healthy adolescent lunch products (60 marks – 40%)

Produce, package, label and serve two portions of the healthy lunch products planned and designed in Task 2 Part A. Demonstrate skills with food, safe food handling practices and processing techniques used to ensure the quality and palatability of food. Evaluate the products and report in a short essay.

What you need to do:

1. Produce healthy adolescent lunch products

- Produce two portions of the savoury and sweet healthy lunch products devised in Task 2 Part A
- Follow the production plan devised in Task 2 Part A
- Package or serve the products as they would be presented for sale
- Produce a label for each product. Include a nutrition panel that identifies the food groups included, an ingredient list and a use by date
- One portion of each product is to be used for sensory evaluation by four peers

2. Production

During product production demonstrate the following:

- Skills with food
 - select the appropriate equipment for the stated purpose
 - adapts recipes to suit design briefs
 - organises work using food orders and production plans
- Processing techniques to ensure the quality and palatability of food
 - apply processing techniques correctly
 - select relevant precision cuts to retain nutrition during processing
 - use sensory testing to evaluate food products.

3. Evaluation

- evaluate peer feedback and make two recommendations for improvement of each product
- evaluate the effectiveness of systems of work explain one positive aspect and two recommendations for improvement
- evaluate the products e.g.
 - compare products with adolescent food preferences
 - evaluate the suitability of each product for either a restaurant or a take-away lunch bar
 - evaluate the effectiveness of the ingredients selected in providing healthy

- products
- evaluates peer feedback on sensory properties

What is required for assessment	Due dates
<input type="checkbox"/> One packaged and one plated, labelled product	Week 9
<input type="checkbox"/> Product evaluation essay	Week 10
<input type="checkbox"/> Attendance on the day of production (absence to be explained in accordance with the school assessment policy)	Week 9

Marking key Task 2 Part B: Unit 1B FSTP

Produce healthy, adolescent lunch products				Maximum mark /60
1. Produce healthy, adolescent lunch products				
<ul style="list-style-type: none"> • Packages or serves the products as they would be presented for sale (1 mark each product) 				/2
<ul style="list-style-type: none"> • Produces a label for each product that includes: <ul style="list-style-type: none"> ○ a nutrition panel ○ food groups included ○ an ingredient list ○ a use by date (1 mark each product for each category) 				/2 /2 /2 /2
Total – Produce healthy, adolescent lunch products				/10
2. Production		1 = poor, 2 = satisfactory, 3 = very good		
Skills with food				
<ul style="list-style-type: none"> • <i>Selects the appropriate equipment for the stated purpose</i> 				
○ uses correct knives for tasks	1	2	3	
○ uses separate boards for raw and cooked food	1	2	3	
<ul style="list-style-type: none"> • <i>Adapts recipes to suit design briefs</i> 				
○ incorporates a minimum of one seasonal commodity in each product	1	2	3	
○ includes a minimum of one different bread variety in each recipe	1	2	3	
○ adapts the recipes to produce two portions of each product	1	2	3	
<ul style="list-style-type: none"> • <i>Organises work using food orders and production plans</i> 				
○ produces and follows a production plan, modifies the plan as necessary	1	2	3	
○ identifies all tasks and includes realistic time allocations	1	2	3	
Total - Skills with food				/21
Processing techniques to ensure the quality and palatability of food				
• applies processing techniques correctly	1	2	3	
• selects relevant precision cuts to enhance physical properties	1	2	3	
• uses sensory testing to evaluate each of the two products	1	2	3	
Total - Processing techniques				/9

3. Evaluation	
<ul style="list-style-type: none"> • Evaluates peer feedback and makes two recommendations for the improvement of each product (1 mark each recommendation for each product) 	/4
<ul style="list-style-type: none"> • Evaluates the effectiveness of systems of work explain one positive aspect and two recommendations for improvement <ul style="list-style-type: none"> ○ explains one positive aspect (1 mark) ○ explains two recommendations for improvement (1 mark each) 	/1 /2
<ul style="list-style-type: none"> • Evaluates the products: <ul style="list-style-type: none"> ○ compares products with adolescent food preferences (1 mark each product) ○ evaluates the suitability of each product for either a restaurant or a take-away lunch bar (1 mark each product) ○ evaluates the effectiveness of the ingredients selected in providing healthy products (1 mark) ○ evaluates peer feedback on sensory properties of each product <ul style="list-style-type: none"> - taste - texture - aroma - flavour (1 mark each property for each product) 	/2 /2 /1 /2 /2 /2 /2
Total - Evaluation	/19
TASK TOTAL	/60

Teacher comment:

Assessment Task 2 Part C: Unit 1B FSTP

Task 2 Part C: Produce a product development brochure

Assessment type:	Production
Outcomes:	Outcome 2: Developing food opportunities
Unit context:	Developing healthy food products
Task duration:	2 weeks
Task weighting:	20% of unit total

Task 2 Part C: Produce a product development brochure (20 marks – 20%)

Produce a brochure that describes the marketing mix used to develop healthy lunch products for adolescents.

What you have to do:

Product:

- Describe two product features of each product developed e.g. nutrient content, physical properties, sensory properties, keeping qualities
- Describe one product benefit (advantage to the consumer) of each product developed e.g. health benefit, emotional reward. local food
- Consider how each product is different to one on the market

Price

- Calculate and explain the selling price of each product e.g. fixed price, variable cost, profit margin

Place

- Evaluate two distribution outlets from which each product could be sold. Explain why each would be profitable

Promotion

- Justify how each product will be presented to the consumer i.e.
 - how consumer needs were identified
 - how consumer needs were met
 - advertising strategies
 - how the products would meet the needs of adolescents with health problems

What is required for assessment	Due date
<input type="checkbox"/> Brochure	Week 12

Marking key Task 2 Part C: Unit 1B FSTP

Produce a product development brochure	Maximum mark
<ul style="list-style-type: none"> • Describes two product features of each product developed (1 mark each feature of each product) 	/4
<ul style="list-style-type: none"> • Describes one product benefit of each product developed (1 mark each benefit of each product) 	/2
<ul style="list-style-type: none"> • Considers how each product is different to a similar product on the market (1 mark each product) 	/2
<ul style="list-style-type: none"> • Calculates the selling price of each product <ul style="list-style-type: none"> ○ calculates the fixed price of each product i.e. equipment /1 ○ calculates the variable cost of each product i.e. raw materials, labour, packaging /1 ○ calculates the profit margin i.e. the difference between the cost and the price the consumer is willing to pay /1 ○ calculates the total selling price /1 (1 mark each) 	
<ul style="list-style-type: none"> • Evaluates two distribution outlets from which each product could be sold. Explains why each would be profitable (1 mark each outlet, 1 mark each explanation) 	/2 /2
<ul style="list-style-type: none"> • Justifies how each product will be presented to the consumer e.g. <ul style="list-style-type: none"> ○ how consumer needs were identified /1 ○ how consumer needs were met /1 ○ advertising strategies /1 ○ how the products would meet the needs of adolescents with health problems /1 (1 mark each) 	
TASK TOTAL	/20

Teacher comment:

Assessment Task 3: Unit 1B FSTP

Task: Small-scale oral presentation

Assessment type:	Response
Outcomes:	Outcome 3: Working in food environments
Outcome 4:	Outcome 4: Understanding food in society
Unit context:	Developing healthy food products
Task duration:	3 weeks
Task weighting:	20% of unit total

Task 3: Small-scale oral presentation (30 marks – 20%)

Present a ten minute oral presentation to ten peers. Describe the phase of the product development process implemented to develop two healthy adolescent lunch products.

What you need to do:

1. Oral presentation

- Include an introduction that clearly describes the investigation issue
- Prepare and use palm cards as prompts during the presentation
- Use the brochure developed in Task 2 Part C as an aid in the presentation
- Use relevant terminology
- Present information in a well structured format e.g. paragraphs
- Speak clearly and confidently
- Address the audience
- Include a logical conclusion
- Provide draft notes
- Use an approved format to reference all information sources

2. Presentation content

- Explain the product development process used to develop the products
- Describe the marketing mix used to develop and market the products
- Explain two ways in which the media influences adolescent food choices
- Explain two ways in which food manufacturers influence adolescent food choices
- Describe two beliefs and values of producers and two beliefs and values of consumers that address consumer needs e.g. profit, health, convenience, cost
- Explain two key design features of the products developed that address social needs e.g. lifestyle, income, food knowledge, entertaining
- Explain two key design features of the products developed that address environmental needs e.g. waste, energy conservation
- Use the brochure developed in Task 2 Part C as an aid in the presentation

What is required for assessment	Due date
<input type="checkbox"/> Draft notes, references	Week 15

Marking key task 2 Part C: Unit 1B FSTP

Small-scale oral presentation	Maximum mark /30
1. Oral presentation skills	
• Includes an introduction that responds to the task	/1
• Prepare and use palm cards as prompts during the presentation	/1
• Uses the brochure developed in Task 2 Part C as an aid in the presentation (1 mark)	/1
• Uses relevant terminology (1 mark)	/1
• Presents information in a well structured format e.g. paragraphs (1 mark)	/1
• Speaks clearly and confidently (1 mark)	/1
• Addresses the audience (1 mark)	/1
• Includes a logical conclusion (1 mark)	/1
• Provides all draft notes (1 mark)	/1
Total – Oral skills	/10
2. Presentation content	
<ul style="list-style-type: none"> • <i>Explains the product development process used to develop the products</i> <ul style="list-style-type: none"> ○ thorough explanation of each of the four stages of the technology process (investigating, devising, producing, evaluating) 5 ○ satisfactory explanation of each of the four stages of the technology process (investigating, devising, producing, evaluating) /4 ○ thorough explanation of three of the four stages of the technology process (investigating, devising, producing, evaluating) 3 ○ satisfactory explanation of three of the four stages of the technology process (investigating, devising, producing, evaluating) 2 ○ brief explanation of fewer than three stages of the technology process (investigating, devising, producing, evaluating) 1 	
<ul style="list-style-type: none"> • <i>Describes the marketing mix used to develop and market the products</i> <ul style="list-style-type: none"> ○ thorough explanation of each of the four stages of the marketing mix (product, price, place, promotion) 5 ○ satisfactory explanation of each of the four stages of the marketing mix (product, price, place, promotion) 4 ○ thorough explanation of three of the four stages of the marketing mix (product, price, place, promotion) 3 ○ satisfactory explanation of three of the four stages of the marketing mix (product, price, place, promotion) 2 ○ brief explanation of fewer than three stages of the marketing mix (product, price, place, promotion) 1 	

<ul style="list-style-type: none"> • <i>Explains two ways in which the media influences adolescent food choices</i> <ul style="list-style-type: none"> ○ clear explanation of two media influences ○ satisfactory explanation of two media influences 	<p>2</p> <p>1</p>
<ul style="list-style-type: none"> • <i>Explains two ways in which food manufacturers influence adolescent food choices</i> <ul style="list-style-type: none"> ○ clear explanation of two influences of food manufacturers ○ satisfactory explanation of two influences of food manufacturers 	<p>2</p> <p>1</p>
<ul style="list-style-type: none"> • <i>Describes two beliefs and values of producers and two beliefs and values of consumers that address consumer needs e.g. profit, health, convenience, cost</i> <ul style="list-style-type: none"> ○ clear explanation of two beliefs and values of producers and two beliefs and values of consumers that address consumer needs ○ satisfactory explanation of two beliefs and values of producers and two beliefs and values of consumers that address consumer needs 	<p>2</p> <p>1</p>
<ul style="list-style-type: none"> • <i>Explains two key design features of the products developed that address social needs e.g. lifestyle, income, food knowledge, entertaining</i> <ul style="list-style-type: none"> ○ explains two key design features of the products developed that address social needs ○ explains one key design feature of the products developed that addresses social needs 	<p>2</p> <p>1</p>
<ul style="list-style-type: none"> • <i>Explains two key design features of the products developed that address environmental needs e.g. waste, energy conservation</i> <ul style="list-style-type: none"> ○ explains two key design features of the products developed that address environmental needs ○ explains one key design feature of the products developed that addresses environmental needs 	<p>2</p> <p>1</p>
Total - Presentation content	/20
TASK TOTAL	/30

Teacher comment:
