

## **A. Introduction**

This unit of work has been created for a year 11 food tech class covering preliminary nutrition at Our Lady of the Sacred Heart College, Kensington, NSW (OLSH). OLSH is an all girls Catholic school with an above average School ICSEA value of 1067, 61% English as a second language students and 4% Indigenous students (MySchool 2023) (Olsh 2024). The year consists of one year 11 class of 12 students as food technology is not very popular in the school past year 10. The class contains a wide range of students from varying backgrounds and with varying abilities. In the class there is one student with ADHD, one student with diagnosed anxiety, seven of the students are from English as a second language backgrounds and one Indigenous student. The course takes place during term three, starting from week 1 and ending in week 10. The majority of the class has completed terms one (Food Availability and Selection) and two (Food Quality) with two students changing subjects to food tech in term two, However those students completed a short summary to meet their course requirements. This means that the class is knowledgeable about the kitchen, of available equipment and food preparation. The learning goals of the unit is to have all students meet the Food Tech - Nutrition preliminary requirements (Board of Studies NSW. 2009):

- P2.1 explains the role of food nutrients in human nutrition
- P3.1 assesses the nutrient value of meals/diets for particular individuals and groups
- P3.2 presents ideas in written, graphic and oral form using computer software where appropriate
- P4.3 selects foods, plans and prepares meals/diets to achieve optimum nutrition for individuals and groups
- P5.1 generates ideas and develops solutions to a range of food situations.

Additionally, the unit aims four students to achieve the following numeracy and literacies outcomes:

- N6-2.3 chooses and applies efficient strategies to analyse and solve everyday problems involving data, graphs, tables, statistics and probability
- N6-2.3 chooses and applies efficient strategies to analyse and solve everyday problems involving data, graphs, tables, statistics and probability
- N6-3.1 chooses and uses appropriate technology to access, organise and interpret information in a range of practical personal and community, workplace and employment, and education and training contexts

Success in this unit will be measured by a summative assessment done throughout the term. Students select and modify a recipe for a 50 year old vegetarian woman using recommended daily intake (RDI) to enhance the meal's nutritional value. Students write down their design process in a progress journal before preparing the meal in class.

## **B. Reflection**

Throughout the creation of the Nutrient-Navigated Nourishment: A Dynamic Approach to Personalised Diet Planning course, several pedagogical approaches were utilised to aid student learning. A primary example of this is how pedagogy was integrated into the structure of the course. This can be displayed through the incorporation of Bloom's Taxonomy and Mastery learning pedagogy. Bloom's Taxonomy is integrated via the sequencing of lower order strategies transitioning to their higher order thinking counterparts. This builds a fundamental base of course knowledge before allowing students to explore and gain a greater understanding of information through analysing, evaluating and creating (Forehand, M. 2005) (loom, Benjamin S. & David R. Krathwohl. 1956), (McGaghie, William C. PhD; Harris,

Ilene B. PhD. 2018). In addition, Mastery learning pedagogy is applied at the beginning of the course, giving students a masterful understanding in the fundamentals of nutrition, to enable students a greater understanding of the topic despite prior knowledge levels, increasing student efficiency and closing the educational gap (Georgina, H., Simone, W., Bianca, E. 2021), (McGaghie, William C. PhD; Harris, Ilene B. PhD. 2018). These elements are supported by further integration of Experiential and Inquiry-Based learning pedagogies via practical elements and research tasks, to enable a diverse range of learners by application and analysis throughout the course (Keeton, M. T. 1976), (NSW Education Standards Authority 2021), (Khalaf, B. K. 2018). All these approaches combine to work towards a Constructivist approach by creating a curated effective learning environment (Larochelle, M., Bednarz, N., & Garrison, J. W. 1998).

Another way in which pedagogical approaches have been used within planning the course is in the development of students' literacy, numeracy and digital skills. Each of these skill sets are integrated throughout the entire course gradually building off each other to increase student ability within all three areas. This is achieved using the same Bloom's Taxonomy based structure present through the course sequence (Forehand, M. 2005), (loom, Benjamin S. & David R. Krathwohl. 1956). Furthermore, students' collaborative practical use of a variety of resource types within these areas helps enable them to development through interactions with others, creating a co-operative, proactive and curious environment in line with Constructivism, Cooperative and Experiential learning pedagogies (Larochelle, M., Bednarz, N., & Garrison, J. W. 1998) (Szabó, F., Csépes, I. 2023), (Keeton, M. T. 1976), (Ballantine, J., McCourt Larres, P. 2007).

Assessment pedagogy was utilised in collaboration with these other pedagogies to measure, challenge and synthesise student knowledge and progress. Three main assessment pedagogies were used in the course, Assessment for Learning (Formative), Assessment as Learning and Assessment of Learning (Summative), each of which were implemented in combination with each other to accentuate their strengths. For instance, Assessment as Learning occurred in combination with Formative and Summative assessment to enable students gaining the self-reflective and proactive advantages of the Assessment as Learning approach whilst still gaining the useful feedback from Formative and Summative assessment pedagogy (NSW Education Standards Authority. 2024), (Kim Schildkamp, Fabienne M. van der Kleij, Maaïke C. Heitink, Wilma B. Kippers, Bernard P. Veldkamp. 2020), (Taras, M. 2005). On the other hand, Formative assessment was also used to support Summative assessment by enabling students to work, experiment and receive feedback without incurring negative marks (Kim Schildkamp, Fabienne M. van der Kleij, Maaïke C. Heitink, Wilma B. Kippers, Bernard P. Veldkamp. 2020), (Taras, M. 2005). All of these approaches combined to create an inquiry friendly and supportive environment where students can explore the course in more individually focused ways whilst still receiving the same support as other students. This works towards closing the educational gap with Constructivism and Assessment pedagogies (Georgina, H., Simone, W., Bianca, E. 2021), (Larochelle, M., Bednarz, N., & Garrison, J. W. 1998), (Phillips, D. C., Denis C. 2000).

Pedagogical Theory was also used to support a diverse range of learners throughout the course. This includes the pedagogical integration within sequencing, development of students' skills and assessments (NSW Education Standards Authority. 2024). The use of Experiential and Inquiry-Based learning in combination with the diverse range of activities helps support individual students with a wide range of educational styles (Keeton, M. T. 1976), (Khalaf, B. K. 2018). Additionally, the use of Cooperative and Constructivism pedagogies through the use of student collaboration created an environment where students of varying abilities help each other to achieve better outcomes (Larochelle, M., Bednarz, N., & Garrison, J. W. 1998), (Ballantine, J., McCourt Larres, P. 2007). This is in addition to the implementation of

differentiation resources, Formative and Assessment as Learning within the classroom to enable students of varying abilities to learn in collaboration despite previous knowledge levels (NSW Education Standards Authority. 2024). These differentiations were selected with students' needs in mind whether they are students with varying abilities, cultural backgrounds or neurological conditions.

## **C. Unit Plan**

'See appendix one for information about annotation formatting.'

**Length: 10 weeks (7 lesson per fortnight)**

## Food Technology (Preliminary Course) – Nutrition

<b>Program</b>	
<b>Title</b> – Nutrient-Navigated Nourishment: A Dynamic Approach to Personalised Diet Planning.	<b>Duration</b> – 10 weeks
<b>Year Level</b> – 11 Preliminary	<b>Time of Year</b> – Term 3
<b>Overview</b> - Students will learn about nutritional composition to help them plan and identify nutritional contents of meals, including dietary needs for a diverse range of people and life cycles. It is a helpful resource for those planning meals whether it be for home, events or work.	
<b>Program</b>	
<b>Outcomes</b>	
P2.1 explains the role of food nutrients in human nutrition.	
P3.1 assesses the nutrient value of meals/diets for particular individuals and groups.	
P3.2 presents ideas in written, graphic and oral form using computer software where appropriate.	
P4.3 selects foods, plans and prepares meals/diets to achieve optimum nutrition for individuals and groups.	
P5.1 generates ideas and develops solutions to a range of food situations.	
N6-2.3 chooses and applies efficient strategies to analyse and solve everyday problems involving data, graphs, tables, statistics and probability.	
N6-2.3 chooses and applies efficient strategies to analyse and solve everyday problems involving data, graphs, tables, statistics and probability.	
N6-3.1 chooses and uses appropriate technology to access, organise and interpret information in a range of practical personal and community, workplace and employment, and education and training contexts.	
<b>Resources</b>	
Google docs - <a href="https://docs.google.com/document/u/0/">https://docs.google.com/document/u/0/</a>	
Google Slides - <a href="https://docs.google.com/presentation/u/0/?ec=asw-slides-hero-goto">https://docs.google.com/presentation/u/0/?ec=asw-slides-hero-goto</a>	
Video Resources - ( <a href="#">https...</a> )	
Recipe sheets - ( <a href="#">https...</a> )	
FoodWorks app - <a href="https://app.foodworks.online/#/workspaces/dashboard">https://app.foodworks.online/#/workspaces/dashboard</a>	
RDI table and resources - ( <a href="#">https...</a> )	
Examples of questions - ( <a href="#">https...</a> )	
Bonus questions on research tasks ( <a href="#">https...</a> )	
Additional tasks and resources - ( <a href="#">https...</a> )	
Prompts for questions - ( <a href="#">https...</a> )	
Annotations on resources - ( <a href="#">https...</a> )	
Kahoot - <a href="https://kahoot.com/">https://kahoot.com/</a>	

Program			
<b>Title –</b> Nutrient-Navigated Nourishment: A Dynamic Approach to Personalised Diet Planning.		<b>Duration –</b> 10 weeks	
Assessment			
<p>This course uses a variety of assessment types including Assessment For (Formative assessment), Assessment As and Assessment of Learning (Summative assessment).</p> <p>Assessment for is used to track student progress throughout the course so that teachers can provide aid and adjustments where necessary.</p> <p>Assessment as is used during practice cooking sessions to enable students to identify issues and find solutions. This is performed in combination with Assessment For, so that students still receive feedback in addition to self-reflection.</p> <p>Assessment of Learning is used as a summative of student learning in the course. It analyses practical, experiential and knowledge skills.</p>			
Unit assessment			
Title of assessment/s	Techniques	Conditions	Assessment dates
Upgrading the Diet: Meal modification group assessment.	Learning and research tasks. RDI research task Reflection / justification progress journal. Kahoot. Practical cooking lesson proficiency. Practice cooking lesson proficiency. Assessed cooking lesson proficiency.	The assessment will be performed under two conditions. <ol style="list-style-type: none"> <li>1.) A cooking practical lesson with Teacher supervision and limited talking between separate groups during assessment time. Students will be able to bring in any resources to help them with their assessment.</li> <li>2.) Students will create a reflection/justification progress journal during class and at home.</li> </ol>	Part A Student selected recipe - Friday 23rd Aug (Week 5) <i>A1.1 (1.1, Part A enables the teacher to gain a better understanding of student progress Formative assessment)</i> Part B Cooking assessment - Wednesday 25th Sep (Week 10) Part C Process diary and reflection / justification <i>A1.2 - Friday 27th Sep (Week 10) (1.2, Allows for a greater depth of summative assessment and student reflection.)</i>
Description of assessments			
<ul style="list-style-type: none"> <li>● <b>Purpose of assessment</b></li> </ul> <p>To measure student implementation of nutritional information within everyday situations using practical skills and theoretical knowledge.</p> <ul style="list-style-type: none"> <li>● <b>Requirements of assessment</b></li> </ul> <ol style="list-style-type: none"> <li>1. Students are able to implement nutritional information to modify a meal, making it more suited for a 50 year old vegetarian woman.</li> <li>2. Students display proficiency in the kitchen whilst creating a modified recipe.</li> <li>3. Students are able to gather, use and format appropriate research and data related to the modified recipe.</li> <li>4. Students are able to reflect upon and justify the selection of data.</li> </ol> <ul style="list-style-type: none"> <li>● <b>Assessment cater for varied student needs</b></li> </ul> <p>Assessment implements group work, multiple data types, practical elements and formative assessments to support different learning needs and provide feedback throughout.</p> <ul style="list-style-type: none"> <li>● <b>Assessment Feedback</b></li> </ul> <p>Feedback occurs during:</p> <ul style="list-style-type: none"> <li>→ Each cooking lesson.</li> <li>→ Week 3 Recipe selection.</li> <li>→ Week 5 Practice cooking session.</li> <li>→ Week 6 Kahoot.</li> <li>→ Week 7 RDI table.</li> <li>→ Week 8 Modified recipe.</li> </ul>			

Program	
<b>Title</b> – Nutrient-Navigated Nourishment: A Dynamic Approach to Personalised Diet Planning.	<b>Duration</b> – 10 weeks
<p>→ Week 9 Practice cooking session.</p> <p>→ Week 10 cooking session and process diary upload.</p> <ul style="list-style-type: none"> <li>● <b>Risk assessments</b></li> </ul> <p>School kitchen health and safety risk assessment required</p> <ul style="list-style-type: none"> <li>● <b>Required Resources:</b></li> </ul> <p>Google docs - <a href="https://docs.google.com/document/u/0/">https://docs.google.com/document/u/0/</a></p> <p>Google Slides - <a href="https://docs.google.com/presentation/u/0/?ec=asw-slides-hero-goto">https://docs.google.com/presentation/u/0/?ec=asw-slides-hero-goto</a></p> <p>FoodWorks app - <a href="https://app.foodworks.online/#/workspaces/dashboard">https://app.foodworks.online/#/workspaces/dashboard</a></p> <p>RDI table and resources - (<a href="https://">https...</a>)</p> <p>Kahoot - <a href="https://kahoot.com/">https://kahoot.com/</a></p>	

W e e k	Key Knowledge and Skills	Content (identify key concepts)	Pedagogies (identify higher order thinking skills)	Resources	Assessment
	A1.3 (1.3, Learning outcomes taken straight from stage 6 food technology and numeracy syllabus.)	A1.4 (1.4, learning content and key concepts were created inline with Food Technology stage 6 S learning outcomes. See Appendix three - Integration of Food technology learning skills within 'Nutrient-Navigated Nourishment: A Dynamic Approach to Personalised Diet Planning.')		A1.5 (1.5, Throughout the course, various digital resources are implemented to support Ss technological efficiency development.)	
1	P2.1	Ss learn about what food nutrients are A3.1 A3.2, specifically carbohydrates, proteins, lipids, vitamins, minerals and water A3.3, and how to identify them. This will help Ss better understand the function of foods they consume A3.4. (3.1, Lays the baseline for S knowledge to help Ss <b>remember</b> inline with Bloom's taxonomy. Additionally, it gives Ss with no experience of nutrition a launch point to close the gap.) (3.2, Ss complete and master the fundamentals of nutrition before moving on to other topics in line with Mastery learning pedagogy) (3.3, Teacher integrates relevant real world examples to increase S curiosity inline with Constructivism pedagogy. This is true for every lesson.) (3.4, This is a hook to help teachers and Ss understand some of the practical	Bloom's Taxonomy Constructivism Cooperative learning Experiential learning A4.1 Mastery learning  (4.1, Every week includes a practical lesson incorporating experiential learning pedagogy throughout the course)	Google Docs A1.5, A5.1 (5.1, Gives teacher access to relevant S work for formative assessment. Additionally, this will help improve Ss' digital Literacy.) Google Slides A1.5 Video Resources A1.5, A5.2 (5.2, Visual medium to provide Ss with a range of resources for diverse learning) Recipe sheets A5.3 (5.3, In this course Ss will learn to analyze a wide variety of resources including recipe sheets, tables, graphs and other forms of media. This will help to diversify their literacy comprehension) <b>-Differentiation-</b> Yarning, group discussion and group work	Ss are put into working groups A6.1. (6.1, Groups are selected to support S learning and close the educational gap by pairing Ss of varying abilities in line with Cooperative learning pedagogy. Groups are also the same cooking groups as previous terms as Ss have already had the opportunity to discover who they work well with creating a more collaborative learning environment in line with Constructivism pedagogy.)

		<p>uses of this knowledge. There is a hook for every lesson.)</p>		<p>Implementation of indigenous ingredients in recipes A5.4 (5.4, Integrates S specific cultural practices into lessons in addition to creating a more question friendly learning environment. Additionally, enabling Ss of varying abilities to interact and raise questions closing the gap. Each of these are in line with both Cooperative learning and Constructivism pedagogy.)</p> <p>Visual aids on recipes and slideshows.</p> <p>Resources are formatted in dot points. A5.5 (5.5, resources are formatted this way to make them more accessible by EAL/D Ss and Ss with ADHD in line with Constructivism pedagogy)</p> <p>Exit card for Ss with anxiety.</p> <p>Examples of questions. A5.6 (5.6, These resources are in place to make the class a more friendly learning environment for Ss with anxiety in line with Constructivism pedagogy)</p> <p>Bonus questions on research tasks.</p> <p>Additional tasks and resources</p> <p>Prompts for questions</p> <p>Cooking aid within kitchen</p> <p>Annotations on resources A5.7 (5.7, These resources are in place to give Ss of varying abilities the appropriate amount of work for their learning experience in line with Constructivism pedagogy)</p>	
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2	<p>P2.1  N6-1.2 A2.1,  A2.2 (2.1,  N6-1.2,  N6-2.3 and  N6-3.1 are  from the  NSW stage 6  numeracy  curriculum)</p>	<p>Ss learn about the nutrient structure and how to identify and research types of carbohydrates, proteins and lipids including complicated vs simple carbohydrates and saturated vs unsaturated fats. Additionally Ss learn how nutrients interact with diets differently A2.2. This will help Ss distinguish between healthy and unhealthy foods with similar ingredients A3.5. Example, the healthy fats present in avocado.  (2.2, during this lesson Ss will learn how different numbers of bonds can drastically change the impact of food on the body implementing N6-1.2) (3.5, This lesson will help Ss <b>understand</b> how nutritional information is important for dieting in line with Bloom's Taxonomy)</p>	<p>Bloom's Taxonomy  Constructivism  Experiential learning  Inquiry-based learning  Mastery learning</p>	<p>Google docs  Google Slides  Video Resources A5.3  Recipe sheets  <b>-Differentiation-</b>  Yarning, group discussion and group work  Implementation of indigenous ingredients in recipes  Visual aids on recipes and slideshows.  Sources are formatted in dot points.  Exit card for Ss with anxiety.  Examples of questions.  Bonus questions on research tasks.  Additional tasks and resources  Prompts for questions  Cooking aid within kitchen  Annotations on resources</p>	<p>Ss research A6.2 what foods contain saturated and unsaturated fats and compare their place within a diet. (6.2 Ss undertake research to make them more active in their learning process and improve critical thinking in line with Inquiry-based learning pedagogy. Additionally, this approach makes Ss more active in asking questions in line with Constructivism pedagogy. Furthermore, Ss will research a wide variety of sources from multiple cultural perspectives to increase their Literacy within multiple areas.)</p>
3	<p>P2.1  N6-1.2  N6-3.1 A2.3</p>	<p>Ss learn how to identify nutrient composition through understanding the sources of carbohydrates, proteins, lipids, and water. Additionally, Ss learn about how to explain the functions of these nutrients in the body. This will help Ss better understand sources of nutrients within their diet and identify misconceptions about certain foods A3.6.  For example, the actual health impacts of supposed 'healthy' alternatives such as Coke Zero.  (3.6, this lesson has Ss <b>apply</b> nutritional information to their everyday life in line with Bloom's Taxonomy)</p>	<p>Bloom's Taxonomy  Constructivism  Cooperative learning  Experiential learning  Inquiry-based learning  Mastery learning</p>	<p>Google docs  Google Slides  Video Resources  Recipe sheets  <b>-Differentiation-</b>  Yarning, group discussion and group work  Implementation of indigenous ingredients in recipes  Visual aids on recipes and slideshows.  Sources are formatted in dot points.  Exit card for Ss with anxiety.  Examples of questions.  Bonus questions on research tasks.  Additional tasks and resources  Prompts for questions  Cooking aid within kitchen  Annotations on resources</p>	<p>Ss break off into cooking groups / teams of two or three and select a recipe. Ss research to identify the nutrient composition of that food A2.3, A3.6. (This is the recipe they will be using for their assessment task, though they can change it before the end of week 4.)  (2.3, Ss use a range of Technology to analyze nutritional composition inline with N6-3.1 improving their numeracy and digital skills)</p>
4	<p>P2.1  N6-3.1</p>	<p>Ss learn about sources of vitamins and minerals as well as their functions in the body and how to explain it. Additionally, Ss learn about the significant and beneficial interrelationships between vitamins and minerals, including:</p>	<p>Bloom's Taxonomy  (Higher Order Thinking)  Constructivism  Cooperative learning  Experiential learning</p>	<p>Google docs  Google Slides  Video Resources  Recipe sheets  FoodWorks app A1.C, A5.3  <b>-Differentiation-</b></p>	<p>Ss break off into cooking groups / teams of two or three and research multiple recipes and analyze the beneficial interactions between nutrients</p>



		<ul style="list-style-type: none"> <li>iron and vitamin C</li> <li>iron and fibre</li> </ul> <p>This will help Ss identify and analyze food combinations and how they help nutritional health.</p>	<p>Inquiry-based learning Mastery learning</p>	<p>Yarning, group discussion and group work Implementation of indigenous ingredients in recipes Visual aids on recipes and slideshows. Sources are formatted in dot points. Exit card for Ss with anxiety. Examples of questions. Bonus questions on research tasks. Additional tasks and resources Prompts for questions Cooking aid within kitchen Annotations on resources</p>	<p>present <b>A6.3</b> in those recipes. Ss put their recipe into the FoodWorks app to analyze its nutrient composition.</p> <p><i>(6.3, this <b>analysis</b> of beneficial interactions helps Ss achieve higher order thinking inline with Bloom's Taxonomy)</i></p>
<b>5</b>	<p>P2.1 P3.1 N6-1.2</p>	<p>Ss learn about the significant and beneficial interrelationships between vitamins and minerals, including:</p> <ul style="list-style-type: none"> <li>calcium and phosphorous</li> <li>calcium and vitamin D</li> <li>calcium and fibre</li> <li>calcium and lactose</li> <li>folate and vitamin B12</li> <li>sodium and potassium</li> </ul> <p>Ss gain an understanding of how combining foods can increase or reduce positive traits. This gives Ss real-world examples of positive food interactions to help them identify and plan ingredient selection for meal preparation.</p>	<p>Bloom's Taxonomy (<i>Higher Order Thinking</i>) Constructivism Cooperative learning Experiential learning Formative assessment Inquiry-based learning Mastery learning <b>A4.2</b></p> <p><i>(4.2, Ss finish mastering the fundamentals of nutrition before going into more specialized learning areas)</i></p>	<p>Google docs Google Slides Video Resources FoodWorks app <b>-Differentiation-</b> Yarning, group discussion and group work Implementation of indigenous ingredients in recipes Visual aids on recipes and slideshows. Sources are formatted in dot points. Exit card for Ss with anxiety. Examples of questions. Bonus questions on research tasks. Additional tasks and resources Prompts for questions Cooking aid within kitchen <b>A5.8</b> (5.8, There are no annotations on recipes as there are no recipes provided this week.)</p>	<p>Ss analyse the nutrient content of their recipe and brainstorm what ingredients can be combined to give a recipe positive benefits. In cooking groups Ss cook their selected unmodified recipe for assessment task <b>A6.4, A6.5.</b> (6.4, Ss <b>create practice recipes to gain a better understanding of the process and problems that may occur in line with Assessment as Learning, Bloom's Taxonomy and higher order thinking</b>) (6.5, Teacher performs formative assessment of S work and gives feedback)</p>
<b>6</b>	<p>P2.1 P4.3 <b>N6-2.3 A2.4</b></p>	<p>Ss learn about the process and functions of digestion, absorption and metabolism of food and how to describe the process. Additionally, they learn about the differences that factors such as age and gender can have on the digestive system <b>A2.4</b>. This will help Ss better understand food interaction for a diverse range of individuals. In addition, it will help Ss better understand the diverse requirements of meal preparation individuals can have.</p>	<p>Bloom's Taxonomy (<i>Higher Order Thinking</i>) Constructivism Experiential learning Formative assessment Inquiry-based learning</p>	<p>Google docs Google Slides Video Resources Recipe sheets Kahoot <b>-Differentiation-</b> Yarning, group discussion and group work Implementation of indigenous ingredients in recipes Visual aids on recipes and slideshows.</p>	<p>Ss complete a Kahoot on nutrition weeks one to five <b>A6.6</b>. Ss research how gender affects digestion and metabolism of foods. (6.6, Teacher uses the data from Kahoot to perform a formative assessment, identifying any</p>

		<i>(2.4, Ss will use a range of numerical data points to learn about the differences between factors on digestion in line with N6-2.3.)</i>		Sources are formatted in dot points. Exit card for Ss with anxiety. Examples of questions. Bonus questions on research tasks. Additional tasks and resources Prompts for questions Cooking aid within kitchen Annotations on resources	<i>elements that need to be revised)</i>
<b>7</b>	P3.1 P3.2 N6-2.3 N6-3.1	Ss learn about the effect of the life cycle of nutritional requirements and how to investigate and calculate someone's recommended intake using this information. Additionally Ss learn about appropriate resources such as RDI tables to assist in this process. This will give Ss a wide range of resources that will be helpful in creating, analyzing and evaluating recipes, meal plans and diets.	Bloom's Taxonomy <i>(Higher Order Thinking)</i> Constructivism Cooperative learning Experiential learning Formative assessment	Google docs Google Slides Video Resources Recipe sheets FoodWorks app RDI table and resources <i>A1.C, A5.3</i> <b>-Differentiation-</b> Yarning, group discussion and group work Implementation of indigenous ingredients in recipes Visual aids on recipes and slideshows. Sources are formatted in dot points. Exit card for Ss with anxiety. Examples of questions. Bonus questions on research tasks. Additional tasks and resources Prompts for questions <i>A5.9</i> Cooking aid within kitchen Annotations on resources <i>A5.9</i> <i>(5.9, these are included on the RDI table and resources.)</i>	Ss work in groups to create a RDI table for their unmodified recipe <i>A6.7</i> . Ss evaluate the recipes <i>A6.8</i> contents and identify points of improvement. <i>(6.7, Ss create an RDI table to gain a better understanding of the process inline with Experiential learning, Bloom's Taxonomy and higher order thinking. The Ss RDI table is stored within a Google document so that the teacher can perform a formative assessment on it)</i> <i>(6.8, Ss evaluate the recipe in order to increase higher order thinking in line with Bloom's Taxonomy.)</i>
<b>8</b>	P4.3 P5.1 N6-1.2 N6-3.1	Ss learn about current food selection guides and nutritional information, that assist in selecting and assessing foods to provide a balanced intake of nutrients, for particular individuals and groups to meet a variety of nutritional needs based on the life cycle. This will help Ss recognise and evaluate diverse food practices within industry. The information is particularly helpful for Ss going into the food preparation, service, catering and manufacturer Industries.	Bloom's Taxonomy <i>(Higher Order Thinking)</i> Constructivism Cooperative learning Experiential learning Formative assessment	Google docs Google Slides Video Resources Recipe sheets FoodWorks app <b>-Differentiation-</b> Yarning, group discussion and group work Implementation of indigenous ingredients in recipes Visual aids on recipes and slideshows. Sources are formatted in dot points. Exit card for Ss with anxiety. Examples of questions.	Using the aid of technical applications such as the FoodWorks app, Ss work in groups to generate ideas and develop solutions for identified points of improvement. Ss finalize their modified recipe <i>A6.9</i> .  <i>(6.9, Teacher checks modified recipe to make sure it is not too difficult</i>

				<p>Bonus questions on research tasks. Additional tasks and resources Prompts for questions Cooking aid within kitchen Annotations on resources</p>	<p><i>and assess S progress in line with Formative assessment pedagogy)</i></p>
9	P4.3	<p>Ss learn about the implementation of suitable preparation techniques to produce nutritious foods and how to use them to plan, prepare, present and evaluate meals/diets that address the needs for optimal nutrition throughout the life cycle. This will be helpful for Ss to make alterations to recipes to better suit different stages through the life cycle. Additionally it will be very useful for the assessment task.</p>	<p>Bloom's Taxonomy (<i>Higher Order Thinking</i>) Constructivism Cooperative learning Experiential learning Summative assessment A4.3 (4.3, <i>The Assessment is a accumulation of the terms knowledge in line with Summative assessment pedagogy</i>)</p>	<p>Google docs Google Slides Video Resources FoodWorks app <b>-Differentiation-</b> Yarning, group discussion and group work Implementation of indigenous ingredients in recipes Visual aids on recipes and slideshows. Sources are formatted in dot points. Exit card for Ss with anxiety. Examples of questions. Bonus questions on research tasks. Additional tasks and resources Prompts for questions Cooking aid within kitchen</p>	<p>Ss work on assessment task process diary and reflection / justification. Ss do practise cooking sessions for assessment task 6.10. (6.10, Ss create practice recipes to gain a better understanding of the process and problems that may occur in line with Experiential learning, Assessment as Learning, Bloom's Taxonomy and higher order thinking)</p>
10	P3.1 P3.2 P4.3 P5.1	<p>Ss implements the use of preparation techniques to prepare and present a planned meal designed with the life cycle and other dietary requirements in mind A3.7. This will help Ss put the course into practice and gain a greater understanding of the content A3.8.</p> <p><i>(3.7, This is a Summative assessment of Ss learning throughout the course.), (3.8, This is in line with Bloom's Taxonomy (Higher Order Thinking), Experiential learning and Summative assessment pedagogy)</i></p>	<p>Bloom's Taxonomy (<i>Higher Order Thinking</i>) Constructivism Cooperative learning Experiential learning Summative assessment</p>	<p>Google docs Google Slides Video Resources FoodWorks app <b>-Differentiation-</b> Yarning, group discussion and group work Implementation of indigenous ingredients in recipes Visual aids on recipes and slideshows. Sources are formatted in dot points. Exit card for Ss with anxiety. Examples of questions. Bonus questions on research tasks. Additional tasks and resources Prompts for questions Cooking aid within kitchen</p>	<p>Ss work on assessment tasks reflection/justification. Ss cook and present assessment task.</p>

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## **E. Appendices**

### **Appendix one - Annotation Format**

Annotations are formatted: **Text AX.X (X.X, Annotation)**

The annotation number is written after the text with the annotation being stored within brackets in the most relevant area.

Example

2	P2.1 N6-1.2 A2.1, A2.2 (2.1, N6-1.2 N6-2.3 and N6-3.1 are	Ss provide... carbohydrates, ... carbohydrates and saturated vs unsaturated fats. Additionally Ss learn how nutrients interact with... diets differently A2.2. between healthy and... ingredients A3.5. Exam... in avocado. (2.2, during this lesson Ss will learn how different numbers of bonds can drastically change the impact of food on the body implementing N6-1.2) (3.5, This lesson will help Ss <b>understand</b> how nutritional information is important for dieting in line with Bloom's Taxonomy)	B C E I L N
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In the case where a highlighted section has multiple annotation numbers, all of those annotation numbers reference that highlighted section.

A highlighted section is referenced by the annotation numbers at the end of that highlighted section. This indicates what information is being commented on.

In the case where there are multiple of the same annotation numbers, the annotation is referencing all highlighted points with that annotation number.

### Appendix two - Assessment 'Upgrading the Diet: Meal modification group assessment' details

Assessment	Upgrading the Diet: Meal modification group assessment.
Details	30% Part A - Student selected recipe - Friday 23th Aug (Week 5) Part B - Practical - Wednesday 25th September (Week 10) Part C - Reflection/Justification - Friday 27th September (Week 10)
Task	Students must work in groups of 2-3 to select and modify a recipe for a 50 year old vegetarian woman using the FoodWorks app and RDI tables. Meal must provide 20-40% of the individuals RDI (recommended daily intake)

## Appendix three - Integration of Food technology learning skills within ‘Nutrient-Navigated Nourishment: A Dynamic Approach to Personalised Diet Planning.’

<i>Students learn about:</i>	<i>Students learn to:</i>
<p><b>Food nutrients</b></p> <ul style="list-style-type: none"> <li>● food nutrients: carbohydrates, proteins, lipids, vitamins, minerals and water.</li> </ul> <p><i>(Week 2)</i></p> <ul style="list-style-type: none"> <li>● structure of carbohydrates, proteins and lipids.</li> </ul> <p><i>(Week 3-4)</i></p> <ul style="list-style-type: none"> <li>● sources of carbohydrates, proteins, lipids, vitamins, minerals and water.</li> <li>● functions of carbohydrates, proteins, lipids, vitamins, minerals and water in the body</li> </ul> <p><i>(Week 4)</i></p> <ul style="list-style-type: none"> <li>● significant interrelationships between nutrients, including:               <ul style="list-style-type: none"> <li>○ iron and vitamin C</li> <li>○ iron and fibre</li> </ul> </li> </ul> <p><i>(Week 5)</i></p> <ul style="list-style-type: none"> <li>○ calcium and phosphorous</li> <li>○ calcium and vitamin D</li> <li>○ calcium and fibre</li> <li>○ calcium and lactose</li> <li>○ folate and vitamin B12</li> <li>○ sodium and potassium</li> </ul> <p><i>(Week 6)</i></p> <ul style="list-style-type: none"> <li>● digestion, absorption and metabolism of food.</li> </ul> <p><b>Diets for optimum nutrition (Week 7)</b></p> <ul style="list-style-type: none"> <li>● nutritional requirements throughout the life cycle.</li> </ul>	<ul style="list-style-type: none"> <li>● identify food nutrients.</li> <li>● identify types of carbohydrates, proteins, lipids and vitamins.</li> <li>● identify the nutrient composition of various foods.</li> <li>● explain the functions of food nutrients in human nutrition.</li> <li>● combine foods to demonstrate nutritionally beneficial interrelationships between foods.</li> <li>● describe the process of digestion, absorption and metabolism of food.</li> <li>● investigate the recommended dietary intake of energy, protein, vitamins and minerals for particular individuals and groups using</li> </ul>

<p><i>(Week 8)</i></p> <ul style="list-style-type: none"> <li>● current food selection guides and nutritional information that assist in planning and evaluating meals/diets.</li> </ul> <p><i>(Week 9-10)</i></p> <ul style="list-style-type: none"> <li>● preparation techniques to produce nutritious foods.</li> </ul>	<p>appropriate data such as RDI tables in print or electronic format.</p> <ul style="list-style-type: none"> <li>● select foods to provide a balanced intake of nutrients for particular individuals and groups to meet a variety of nutritional needs</li> </ul> <p><i>(Week 9)</i></p> <ul style="list-style-type: none"> <li>● use suitable preparation methods to optimise the nutritional value of foods</li> </ul> <p><i>(Week 8)</i></p> <ul style="list-style-type: none"> <li>● assess meals/diets in regard to meeting nutritional needs throughout the life cycle</li> </ul> <p><i>(Week X)</i></p> <ul style="list-style-type: none"> <li>● plan, prepare, present and evaluate meals/diets that address the needs for optimal nutrition throughout the life cycle</li> </ul>
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