

Year 10 Food Technology | Term 3

Key Question: How do we ensure we have a balanced diet and are in good health?

Topic Overview:

Students will understand the relationship between diet, nutrition and health, including the physiological and psychological effects of poor diet and health.

Students must know be aware of the following subtopics for this topic:

- Energy Requirements of Individuals
- Planning Balanced Diets
- Calculating Energy and Nutritional Values of Recipes, Meals and Diets

Energy Requirements of Individuals

Students must know and understand:

- the recommended daily intake (RDI) and the percentage energy values of protein, fat and carbohydrates: monosaccharides (sugars) polysaccharides (starch) and non-soluble polysaccharides (dietary fibre) vitamins and minerals, for:
 - (i) a range of life-stages: toddlers, teenagers, early, middle and late adulthood
 - (ii) individuals with specific dietary needs or nutritional deficiencies to include coeliac disease; diabetes (type 2 diabetes only to be considered), dental caries; iron deficiency anaemia; obesity; cardiovascular disease (CVD); calcium deficiencies to include bone health; nut or lactose (dairy) intolerances
 - (iii) individuals with specific lifestyle needs to include vegetarians: lacto-ovo, lacto, vegan, and those with religious beliefs that affect choice of diet, to include Hindu, Muslim, Jewish
- how nutrients work together in the body, e.g. complementary actions
- basal metabolic rate (BMR) and physical activity level (PAL) and their importance in determining energy requirements
- students must have a sound awareness of other common dietary issues including coronary heart disease (CHD), cholesterol and liver disease.

Planning Balanced Diets

Students should be able to use their knowledge of nutrition and current nutritional guidelines to:

- recommend guidelines for a healthy diet
- identify how nutritional needs change due to age, lifestyle choices and state of health
- plan a balanced diet for:
 - (i) a range of life-stages: toddlers, teenagers, early, middle and late adulthood
 - (ii) individuals with specific dietary needs or nutritional deficiencies to include coeliac disease; diabetes (type 2 diabetes only to be considered), dental caries; iron deficiency anaemia; obesity; cardiovascular disease (CVD) calcium deficiencies to include bone health; nut or lactose (dairy) intolerances

- (iii) individuals with specific lifestyle needs to include vegetarians: lacto-ovo, lacto, vegan, and those with religious beliefs that affect choice of diet, to include Hindu, Muslim, Jewish
- (iv) individuals requiring high energy needs as a result of occupation or activity involvement

Calculating Energy and Nutritional Values of Recipes, Meals and Diets

Students should be able to:

- calculate the energy and main macronutrients and micronutrients in the following:
 - (i) a recipe
 - (ii) a meal
 - (iii) an individual's existing diet over a period of time
- use nutritional information/data to determine why, when and how to make changes to:
 - (i) a recipe, e.g. increase dietary fibre (NSP) content
 - (ii) a menu, e.g. reduce saturated fat content
 - (iii) a diet, e.g. to increase energy intake prior to a sporting activity or to meet the new recommendations for free sugars
- show how an understanding of energy balance can be used to maintain a healthy body weight throughout life

[Link to Specification](#)

Week	Lesson Exploration	Knowledge & Skills Exploration	Specification Link	Key Words
Week 1: Lesson 1	How do we ensure we have a balanced diet and are in good health?	<p>Students will be able to:</p> <ul style="list-style-type: none"> • outline three dietary guidelines: <ul style="list-style-type: none"> - the Eatwell guide - the five-a-day campaign - the eight tips for healthy eating • explain the purpose and expected impact of each guideline • describe food labelling <p>Students will explore these topics by analysing the dietary guidelines through looking at them visually and understanding the daily intake each life</p>	<p>3. Diet and good health Plan balanced diets. Learners should be able to use their knowledge of nutrition and current nutritional guidelines to:</p> <ul style="list-style-type: none"> • recommend guidelines for a healthy diet • identify how nutritional needs change due to age, life style choices and state of health • plan a balanced diet for: <ul style="list-style-type: none"> (i) a range of life-stages: toddlers, teenagers, early, middle and late adulthood (ii) individuals with specific dietary needs or nutritional deficiencies to include coeliac disease; diabetes (type 2 diabetes only to be considered), dental caries; iron deficiency anaemia; obesity; cardiovascular disease (CVD) calcium 	Diet Balanced Diet Undernutrition Overnutrition Metabolism Malnutrition Recommended Daily Intake (RDI) Dietary Reference Values (DRVs) Estimate Average Requirements (EAR) Reference Nutrient Intake (RNI) Physical Activity Level (PAL)

		change needs in order to keep a healthy lifestyle.	deficiencies to include bone health; nut or lactose (dairy) intolerances (iii) individuals with specific lifestyle needs to include vegetarians: lacto-ovo, lacto, vegan, and those with religious beliefs that affect choice of diet, to include Hindu, Muslim, Jewish (iv) individuals requiring high energy needs as a result of occupation or activity involvement	Basic Metabolic Rate (BMR) Dietary Guidelines Insulin Nutritional Requirement Decalcification Primary Dentition Osteomalacia Osteoporosis Calcium Deficiency Religious Diet Gluten Free Diabetes Coeliac Anemia Vegetarian Vegan Food Intolerance
Week 1: Lesson 2	How do we ensure we have a balanced diet and are in good health?	<p>Students will be able to:</p> <ul style="list-style-type: none"> outline the recommended daily intake (RDI) and the percentage values protein, fat and carbohydrates: monosaccharides (sugars) polysaccharides (starch) and non-soluble polysaccharides (dietary fibre) vitamins and minerals, for: <ul style="list-style-type: none"> toddlers teenagers early, middle and late adulthood pregnancy and lactation explain the recommended guidelines for healthy diet for each life stage discuss how nutritional needs change due to age <p>Students will explore the recommended daily intake by looking at different case studies from different lifestyles and age groups. They will do this by looking at the information in a table and recommending how much the case study needs of the daily intake.</p>	<p>3. Diet and good health Plan balanced diets. Learners should be able to use their knowledge of nutrition and current nutritional guidelines to:</p> <ul style="list-style-type: none"> recommend guidelines for a healthy diet identify how nutritional needs change due to age, lifestyle choices and state of health plan a balanced diet for: <p>(i) a range of life-stages: toddlers, teenagers, early, middle and late adulthood (ii) individuals with specific dietary needs or nutritional deficiencies to include coeliac disease; diabetes (type 2 diabetes only to be considered), dental caries; iron deficiency anaemia; obesity; cardiovascular disease (CVD) calcium deficiencies to include bone health; nut or lactose (dairy) intolerances (iii) individuals with specific lifestyle needs to include vegetarians: lacto-ovo, lacto, vegan, and those with religious beliefs that affect choice of diet, to include Hindu, Muslim, Jewish (iv) individuals requiring high energy needs as a result of occupation or activity involvement</p>	
Week 2:	How do we ensure we	Students will be able to:	3. Diet and good health	

Lesson 1	have a balanced diet and are in good health?	<ul style="list-style-type: none"> • explain coeliac disease and how it affects people • identify foods that can not be consumed by coeliacs and the alternatives that are available • recommend guidelines for a healthy diet (planning a balanced diet) <p>Students will explore how different dietary issues affect people and how this impacts their diet. Students will look at case studies of different dietary requirements and recommend how the case study can improve their diet and avoid becoming ill.</p>	Energy requirements of individuals Learners must know and understand: <ul style="list-style-type: none"> • the recommended daily intake (RDI) and the percentage energy values of protein, fat and carbohydrates: monosaccharides (sugars) polysaccharides (starch) and non-soluble polysaccharides (dietary fibre) vitamins and minerals, for: <p>(i) a range of life-stages: toddlers, teenagers, early, middle and late adulthood</p> <p>(ii) individuals with specific dietary needs or nutritional deficiencies to include coeliac disease; diabetes (type 2 diabetes only to be considered), dental caries; iron deficiency anaemia; obesity; cardiovascular disease (CVD); calcium deficiencies to include bone health; nut or lactose (dairy) intolerances</p> <p>(iii) individuals with specific lifestyle needs to include vegetarians: lacto-ovo, lacto, vegan, and those with religious beliefs that affect choice of diet, to include Hindu, Muslim, Jewish</p> <ul style="list-style-type: none"> • how nutrients work together in the body, e.g. complementary actions • basal metabolic rate (BMR) and physical activity level (PAL) and their importance in determining energy requirements Learners must have a sound awareness of other common dietary issues including coronary heart disease (CHD), cholesterol and liver disease 	
Week 2: Lesson 2	How do we ensure we have a balanced diet and are in good health?	Practical - Pie	Preparation & Cooking techniques Learners must be able to plan, prepare cook and serve a number of recipes. Learners must be able to demonstrate skills from each skill group (listed in Appendix A) to include: <ul style="list-style-type: none"> • planning for cooking: (i) a single dish (ii) a number of dishes in one session (to ensure a dovetailed action plan) 	

			<ul style="list-style-type: none"> • preparation of ingredients to make a selection of recipes, e.g. weigh and measure liquids and solids, use knife skills, combine and shape, tenderise and marinate • cooking a selection of recipes, e.g. water based methods, using the oven, set a mixture, select and adjust cooking times and temperatures, judge and manipulate sensory properties: seasoning, test for readiness • presenting a selection of recipes, e.g. shaping and finishing a dough, glazing and food styling, preparing fruits and vegetables as a garnish 	
Week 3: Lesson 1	How do we ensure we have a balanced diet and are in good health?	<p>Students will be able to:</p> <ul style="list-style-type: none"> • explain diabetes (type 1 and type 2) and how it affects people • describe foods that should be avoided by people with diabetes • recommend guidelines for a healthy diet (planning a balanced diet) <p>Students will look at the impacts on a person suffering from type 1 or 2 diabetes. Students will understand the symptoms of each diabetes. Students will then look at case studies and recommend how the case study can improve their diet and refrain from becoming ill.</p>	3. Diet and good health Plan balanced diets <p>Learners should be able to use their knowledge of nutrition and current nutritional guidelines to:</p> <ul style="list-style-type: none"> • recommend guidelines for a healthy diet • identify how nutritional needs change due to age, life style choices and state of health • plan a balanced diet for: <p>(i) a range of life-stages: toddlers, teenagers, early, middle and late adulthood</p> <p>(ii) individuals with specific dietary needs or nutritional deficiencies to include coeliac disease; diabetes (type 2 diabetes only to be considered), dental caries; iron deficiency anaemia; obesity; cardiovascular disease (CVD) calcium deficiencies to include bone health; nut or lactose (dairy) intolerances</p> <p>(iii) individuals with specific lifestyle needs to include vegetarians: lacto-ovo, lacto, vegan, and those with religious beliefs that affect choice of diet, to include Hindu, Muslim, Jewish</p> <p>(iv) individuals requiring high energy needs as a result of occupation or activity involvement</p>	
Week 3:	How do we ensure we	Students will be able to:	3. Diet and good health	

Lesson 2	have a balanced diet and are in good health?	<ul style="list-style-type: none"> • explain obesity and how it affects people • describe foods that should be avoided by people with obesity • recommend guidelines for a healthy diet (planning a balanced diet) <p>Students will learn how obesity can affect everyday life and will look at ways to avoid obesity. Students will then look at case studies and recommend how people can avoid becoming obese.</p>	Plan balanced diets Learners should be able to use their knowledge of nutrition and current nutritional guidelines to: <ul style="list-style-type: none"> • recommend guidelines for a healthy diet • identify how nutritional needs change due to age, life style choices and state of health • plan a balanced diet for: <ul style="list-style-type: none"> (i) a range of life-stages: toddlers, teenagers, early, middle and late adulthood (ii) individuals with specific dietary needs or nutritional deficiencies to include coeliac disease; diabetes (type 2 diabetes only to be considered), dental caries; iron deficiency anaemia; obesity; cardiovascular disease (CVD) calcium deficiencies to include bone health; nut or lactose (dairy) intolerances (iii) individuals with specific lifestyle needs to include vegetarians: lacto-ovo, lacto, vegan, and those with religious beliefs that affect choice of diet, to include Hindu, Muslim, Jewish (iv) individuals requiring high energy needs as a result of occupation or activity involvement 	
Week 4: Lesson 1	How do we ensure we have a balanced diet and are in good health?	<p>Students will be able to:</p> <ul style="list-style-type: none"> • explain iron deficiency anaemia and calcium deficiencies to include bone health and how it affects people • identify foods that can not be consumed by these diets and the alternatives that are available • recommend guidelines for a healthy diet (planning a balanced diet) <p>Students will look at how iron deficiency affects people's everyday life. Students</p>	3. Diet and good health Plan balanced diets Learners should be able to use their knowledge of nutrition and current nutritional guidelines to: <ul style="list-style-type: none"> • recommend guidelines for a healthy diet • identify how nutritional needs change due to age, lifestyle choices and state of health • plan a balanced diet for: <ul style="list-style-type: none"> (i) a range of life-stages: toddlers, teenagers, early, middle and late adulthood (ii) individuals with specific dietary needs or nutritional deficiencies to include coeliac disease; diabetes (type 2 diabetes only to be considered), dental caries; iron deficiency 	

		will then look at different case studies to identify the illness someone is suffering from and how they can avoid impacting their health further.	anaemia; obesity; cardiovascular disease (CVD) calcium deficiencies to include bone health; nut or lactose (dairy) intolerances (iii) individuals with specific lifestyle needs to include vegetarians: lacto-ovo, lacto, vegan, and those with religious beliefs that affect choice of diet, to include Hindu, Muslim, Jewish (iv) individuals requiring high energy needs as a result of occupation or activity involvement	
Week 4: Lesson 2	How do we ensure we have a balanced diet and are in good health?	Students will be able to: <ul style="list-style-type: none"> describe food intolerances: nut, lacto, gluten identify foods that can not be consumed by these diets and the alternatives that are available recommend guidelines for a healthy diet (planning a balanced diet) Students will explore different food intolerances and how to act upon one if someone is suffering. Students will then apply their knowledge by looking at symptoms from different case studies to identify the intolerance someone is suffering from.	3. Diet and good health Plan balanced diets Learners should be able to use their knowledge of nutrition and current nutritional guidelines to: <ul style="list-style-type: none"> recommend guidelines for a healthy diet identify how nutritional needs change due to age, life style choices and state of health plan a balanced diet for: <ul style="list-style-type: none"> (i) a range of life-stages: toddlers, teenagers, early, middle and late adulthood (ii) individuals with specific dietary needs or nutritional deficiencies to include coeliac disease; diabetes (type 2 diabetes only to be considered), dental caries; iron deficiency anaemia; obesity; cardiovascular disease (CVD) calcium deficiencies to include bone health; nut or lactose (dairy) intolerances (iii) individuals with specific lifestyle needs to include vegetarians: lacto-ovo, lacto, vegan, and those with religious beliefs that affect choice of diet, to include Hindu, Muslim, Jewish (iv) individuals requiring high energy needs as a result of occupation or activity involvement 	
Week 5: Lesson 1	Revision	Revision		

Week 5: Lesson 2	Assessment	Assessment		
Week 6: Lesson 1	Assessment Review	Assessment Review		