Written Activity One

10+ Questions!

Read the content at this link: https://foodstudies.com.au/courses/unit-2-2-3/

Answer the questions below.

1. What are some factors that influence dietary requirements at different stages of life?

   Our nutritional needs change as we grow. Age, physical activity, preferences, and health conditions all affect what we should eat.

2. Explain the nutritional needs of infants and how recipes can be adapted to meet their development and growth requirements.

   Babies need nutrient-rich foods for quick growth. Breast milk or formula is good, and after 6 months, soft foods with iron, protein, and energy can be introduced. This can be done by gradually introducing foods that are soft that contain iron like iron-fortified cereal, then some dairy like yoghurt and some foods like avocado and fruit.

3. Describe the dietary demands of children and how recipes can support healthy growth.

   Kids need balanced food for growth. Whole grains, lean proteins, fruits, and veggies are good and can be incorporated into meals. Making small, regular meals can help if kids prefer it and if needed, hiding vegetables in a meal Sas well as serving them alongside a meal is good. This can result in mealtimes not being as stressful, kids are still encouraged to eat vegetables with their meals and while they are becoming accustomed to them, they are getting them in their meals anyway.

4. What are the nutritional needs of adolescents and how can families structure mealtimes and meals to accommodate their developmental stage, preferences, and schedules?

   Teens grow fast, so they need protein, iron, and calcium. Families can have nutritious food ready for busy schedules. Healthy versions of fast food can be made at home and meals that can be eating ‘on the go’ that are easily reheated are beneficial for this age group.

5. Discuss the dietary considerations for mid-to-late adulthood, including menopause-related changes.

   Adults need balanced diets. Some adults tend to live more sedentary lifestyles and therefore need to reduce their energy intake. They also need to be aware of Women in menopause need calcium and vitamin D for bones. Portion sizes should fit changing energy needs.

6. How do nutritional needs change for older adults, and what adaptations can be made to recipes for this age group?

   Seniors need fewer kilojoules but the same amount of nutrients. Foods should be nutrient-rich, softer if needed, and have more flavour. Strong flavours are good for older people's whose taste buddies are declining and softer textures are good for people who don't have strong teeth anymore.

7. For sedentary and active individuals, what recipe adaptations would you recommend to manage energy intake?

   For less active people, control portion sizes and use less oil. For active people, include lean protein, whole grains, and more carbohydrates for energy.

8. Imagine you're designing a meal plan for a group of adolescents with varying activity levels. How would you tailor the meal plan to provide sufficient energy for both sedentary and highly active individuals?

To create a meal plan for a group of adolescents with different activity levels, we need to consider their energy needs. For sedentary individuals, we can focus on controlling portion sizes and choosing nutrient-dense foods. This means including lean proteins, whole grains, and plenty of fruits and vegetables to provide essential nutrients without excessive calories.

For highly active individuals, we should increase the energy content of the meals. This can be done by adding more complex carbohydrates like whole grains and starchy vegetables. Additionally, including lean sources of protein will aid in muscle recovery and growth. Healthy fats, like those from nuts and avocados, can also provide extra energy.

9. Consider a scenario where an individual in mid-to-late adulthood wants to maintain optimal bone health. How could recipe adaptations provide the necessary nutrients like calcium and vitamin D while also aligning with their changing dietary needs?

To align with changing dietary needs, recipe adaptations can focus on incorporating calcium-rich foods. Dairy products like low-fat yoghurt, cheese, and milk are good sources of calcium.

Vitamin D, which aids calcium absorption, can be obtained from sources like fatty fish (salmon) and fortified foods like orange juice. Exposure to sunlight is also important for vitamin D synthesis. Recipes can be adjusted to include these sources, such as grilled fish or vitamin D-fortified cereals.

10. Think about a person who follows a vegetarian diet due to ethical reasons. How could you design a recipe that not only meets their nutritional needs but also aligns with their ethical food choices?

Start by choosing plant-based protein sources like beans, lentils, tofu, or tempeh. These ingredients offer protein, iron, and other nutrients. Incorporate a variety of colorful vegetables to provide vitamins, minerals, and fiber.

To ensure adequate iron absorption, include foods rich in vitamin C, like bell peppers or citrus fruits. Vitamin C enhances iron absorption from plant-based sources.

Incorporate whole grains like quinoa, brown rice, or whole wheat pasta for complex carbohydrates and sustained energy.

For healthy fats, use sources like avocado, nuts, and seeds. These can provide essential fatty acids and satiety.

To align with ethical choices, avoid animal products like meat, poultry, and fish. Instead, use vegetable broths or plant-based milk for cooking. Also, consider the environmental impact of ingredients and choose locally sourced or organic options when possible.

Written Activity One

Personalising Nutrition

In this activity, you and your team are nutrition experts working with a company called Personalising Nutrition. Your task is to select a client to work with for the week and create recipe adaptations that align with their specific dietary requirements. Each client has unique needs, and your goal is to ensure that their meals are not only nutritious but also enjoyable.

Instructions:

1. As a team, review the provided client scenarios. Choose one client whose dietary needs you would like to address for the week. Consider their age, activity level, health conditions, ethical choices, and any other relevant factors.

2. Discuss within your team the specific dietary considerations, nutritional challenges, and potential restrictions related to their situation.

3. Your task is to adapt three main meal recipes to cater to the chosen client's dietary needs. Design meals that are nutritionally balanced, taking into account essential nutrients, portion sizes, and any specific requirements mentioned in the scenario.

   Keep in mind any safety precautions or considerations related to the client's condition. For example, food allergies, pregnancy safety, or restrictions due to medical conditions.

   If relevant, incorporate ingredients that align with the client's cultural or ethical choices. Ensure that your recipe adaptations respect their preferences.
   Your recipes should not only meet nutritional needs but also be enjoyable to eat. Consider flavours, textures, and variety to make meals enticing.

4. Prepare a presentation or document showcasing your chosen client, their dietary needs, the adapted recipes, and the rationale (reason) behind each adaptation. Be ready to explain your choices.

5. After all teams have prepared their presentations, take turns presenting your chosen client and recipe adaptations to the class. Discuss the thought process behind your adaptations and address any questions.

Scenarios

Client Scenario 1: The Energetic Athlete

Meet Alex, a 16-year-old high school student who's a passionate soccer player. Alex trains rigorously, both with the school team and independently. Their goal is to improve their performance and potentially join a college soccer team in the future. However, Alex's energy needs are higher than the average teen due to their intense training regimen. Your team at Personalising Nutrition has been tasked with creating recipe adaptations that provide ample energy, support muscle recovery, and enhance endurance for Alex's active lifestyle.

Client Scenario 2: The Green-Ethics Enthusiast

Sophie, a 17-year-old environmental activist, has chosen to follow a vegetarian diet due to ethical reasons. She's deeply committed to sustainable living and wants her food choices to reflect her values. However, Sophie's concerned about meeting her nutritional needs, particularly protein and certain vitamins. Your team's challenge is to design recipe adaptations that not only provide well-rounded nutrition but also align with Sophie's ethical stance, making her feel like she's making a positive impact through her diet.

Client Scenario 3: The Tech-Savvy Diabetic

Meet Jake, an 18-year-old tech enthusiast who has recently been diagnosed with type 1 diabetes. Jake spends long hours coding and gaming, which often means irregular eating patterns. He's struggling to manage his blood sugar levels and is looking for meals that can help stabilize his energy and blood sugar throughout the day. Your team's task is to create recipe adaptations that prioritize complex carbohydrates, fibre, and balanced nutrition to assist Jake in managing his diabetes effectively while accommodating his tech-driven lifestyle.

Client Scenario 4: The Expectant Artist

Emma, an 18-year-old aspiring artist, is excited to share that she's pregnant. As she navigates her way through this unique journey, Emma is concerned about making sure her diet supports her and her baby's health. She's looking for recipes that provide essential nutrients like folate, iron, and calcium while addressing common pregnancy discomforts like nausea. Your team's challenge is to create recipe adaptations that are not only nutritious but also help Emma enjoy her pregnancy while focusing on her art.

Client Scenario 5: The Cultural Explorer

Javier, a 17-year-old student, has a passion for traveling and exploring different cultures. He's particularly fascinated by Asian cuisines and wants to incorporate more diverse and international flavours into his diet. He's open to trying new foods but is also conscious of his nutritional needs as a growing teenager. Your team's task is to design recipe adaptations that introduce Javier to a variety of flavours, ingredients, and cooking techniques from around the world while ensuring his dietary requirements are met.

Client Scenario 6: The Health-Conscious Gamer

Lily, a 16-year-old avid gamer, enjoys spending hours immersed in virtual worlds. However, her sedentary lifestyle has led to weight gain, and she's motivated to make healthier choices. She's looking for recipes that are both satisfying and promote weight management. Your team's challenge is to create recipe adaptations that include nutrient-dense, satisfying meals that Lily can enjoy during her gaming sessions while encouraging a more active lifestyle.

Client Scenario 7: The Allergic Foodie

Meet Max, a 15-year-old food enthusiast who loves experimenting with different cuisines. However, Max has multiple food allergies, including dairy, nuts, and shellfish. Despite these allergies, Max refuses to compromise on flavour and variety. Your team's task is to design recipe adaptations that provide exciting and diverse meals while strictly avoiding Max's allergens and ensuring he doesn't miss out on the joy of exploring different tastes.

Client Scenario 8: The Mindful Meditator

Sophia, a 17-year-old, has a deep interest in mindfulness and meditation. She believes that nourishing her body with the right foods is essential for mental well-being. Sophia is looking for recipes that support brain health, focus, and concentration. Your team's challenge is to create recipe adaptations that include ingredients known for their cognitive benefits and design meals that align with Sophia's holistic approach to health.

Client Scenario 9: The Time-Strapped Scholar

Jordan, an 18-year-old college student, is always on the go, juggling classes, part-time work, and social commitments. Their busy schedule often leads to skipped meals and reliance on quick, unhealthy snacks. Jordan is seeking recipe adaptations that are easy to prepare, require minimal cooking time, and offer balanced nutrition. Your team's task is to create recipes that provide convenience without compromising on health, helping Jordan maintain energy and focus throughout the day.

Client Scenario 10: The Taste Adventurer

Olivia, a 16-year-old with an adventurous palate, is eager to try new and exciting flavors. She enjoys experimenting with unique ingredients and combinations. Olivia is looking for recipe adaptations that offer a burst of flavours and textures while supporting her nutritional needs. Your team's challenge is to create recipes that incorporate a variety of tastes and ingredients, satisfying Olivia's curiosity while ensuring well-rounded nutrition.

Starter Activity One

Multiple Choice Quiz: Nutritional Needs at Different Life Stages

Review the information at this weblink: https://www.betterhealth.vic.gov.au/health/healthyliving/food-and-your-life-stages

Take the quiz below.

1. What are the recommended foods for babies from birth to 4 months of age?
   a. Breastmilk or infant formula
   b. Cow's milk and fruit juice
   c. Foods like fruits and vegetables
   d. Soft cheese and cold seafood

2. What should be avoided when feeding babies to reduce the risk of choking?
   a. Whole nuts, seeds, or hard foods
   b. Fruits and vegetables
   c. Iron-enriched infant cereals
   d. Cooked plain tofu

3. What should be avoided to prevent tooth decay in young children?
   a. Soft drinks and fruit juices
   b. Milk and yogurt
   c. Whole fruits
   d. Legumes and nuts

4. Which nutrient is particularly important for growing bones in young children?
   a. Calcium
   b. Iron
   c. Vitamin C
   d. Vitamin B12

5. What is the recommended approach for pregnant women to increase nutrient intake?
   a. Fad dieting
   b. Eating for two
   c. Concentrating on diet quality rather than quantity
   d. Avoiding all cravings

6. What should menopausal women include in their diet to support bone health?
   a. Foods rich in calcium
   b. High-fat and high-sugar foods
   c. Red meat and processed meats
   d. Soft cheeses and cold seafood

7. What can older people do to ensure they consume a well-balanced diet?
    a. Limit physical activity to conserve energy
    b. Choose energy-dense foods
    c. Eat nutrient-dense foods and engage in regular exercise
    d. Skip meals to reduce calorie intake

8. John is 15 years of age, he runs 5km every day and plays sport 3 times per week. Where should he get the majority of his energy needs from?
    a. Carbohydrates
    b. Fats
    c. Proteins
    d. Vitamins

9. On average, which nutrient has higher requirements in males compared to females?
    1. Calcium
    2. Iron
    3. Protein
    4. Vitamin C

10. How does physical activity level affect dietary needs?
    a. Higher physical activity requires a higher intake of kilojoules and nutrients.
    b. Higher physical activity reduces the need for kilojoules and nutrients.
    c. Physical activity has no impact on dietary needs.
    d. Physical activity only affects hydration levels, not dietary needs.

Starter Activity Two

True or False Quiz: Nutritional Needs at Different Life Stages

Review the information at this weblink: https://www.betterhealth.vic.gov.au/health/healthyliving/food-and-your-life-stages

Take the quiz below.

Statement	True	False
1. Breastmilk generally supplies a baby with the required amounts of nutrients, fluids, and energy up to about 12 months of age.		False
2. Both men and women should aim to limit their intake of saturated and trans fats as recommended by the ADGs to promote heart health.	True	
3. Babies can be introduced to vegetables in any order, as long as the texture is suitable for their stage of development.	True	
4. Men typically have higher energy requirements compared to women due to factors such as muscle mass and physical activity levels.	True	
5. Reduced-fat milks are recommended for children under the age of 2 to meet their increased energy requirements.		False
6. Women of childbearing age are advised to avoid foods high in folate to reduce the risk of neural tube defects during pregnancy, as recommended by the ADGs.		False
7. Adolescent girls should be encouraged to consume milk and milk products for their calcium intake.	True	
8. Pregnant women should avoid drinking alcohol during pregnancy.	True	
9. Regular physical activity is important for maintaining good health and should be encouraged at all life stages.	True	
10. Adolescents require less energy due to their growth spurt and increased physical activity than adults.		False
11. According to the AGHE, teenagers should aim to consume a limited variety of foods from the five food groups to meet their nutritional needs.		False
12. As people enter adulthood, their energy needs tend to decline naturally.	True	
13. Engaging in regular exercise during adulthood can help reduce the risk of chronic diseases.	True	
14. Older adults should avoid physical activity to conserve energy and prevent injury.		False
15. Older male adults require more protein than adolescent males.		False
16. The ADGs recommend that men should consume higher amounts of saturated and trans fats compared to women to support their overall health.		False
17. Age-related muscle loss can be slowed down or prevented through regular exercise and adequate protein intake.	True	
18. Regular exercise in older adults can improve balance, reduce the risk of falls, and maintain independence.	True	
19. The nutritional needs of older adults are the same as those of younger adults.		False
20. The AGHE encourages both men and women to include a variety of fruits, vegetables, whole grains, lean meats, and dairy products in their diet.	True	

Starter Activity Three

Odd one Out: Nutritional Needs at Different Life Stages

Review the information at this weblink: https://www.betterhealth.vic.gov.au/health/healthyliving/food-and-your-life-stages

In this quiz, you will be presented with a series of questions where you need to **identify** the option that is the odd one out.

Read each question carefully and consider the information provided in the question.

Choose the option that does not fit with the given information or stands apart from the others.

Take the quiz below.

Activity 1	Adolescence	Childhood	Old Age
Activity 2	Lean meats	Fish	Whole grains
Activity 3	Soft drinks	Legumes	Fruits
Activity 4	Whole nuts	Meat	Tofu
Activity 5	Olive Oil	Margarine	Butter
Activity 6	Walking	Running	Cycling
Activity 7	Menopausal women	Pregnant women	Children
Activity 8	Wholegrain Bread	White Rice	Brown Rice
Activity 9	Iron	Protein	Fibre
Activity 10	Chocolate Milk	Cheese	Yoghurt

Practical Activity One

Lifespan Dietary Analysis

In this task, you will conduct a dietary analysis for individuals in different lifespan stages using the Australian Dietary Guidelines (ADGs) checklist and the Australian Guide To Healthy Eating (AGtHE) blank diagram.

Instructions:

1. Divide into small working groups.
2. Select one of the food diaries below.
3. Use the checklist provided to analyse your chosen food diary.
4. Identify any areas of concern, such as nutrient deficiencies or excessive consumption of certain food groups.
5. What potential recipe adaptations or recommendations would you make to this food diary?
6. How could you improve the food diary for your chosen lifespan stage.

Meals	**Food Diaries**		
	Childhood (10-year-old)	**Adolescence (16-year-old)**	**Female Adult**
Breakfast	Bowl of cereal with milk, sliced banana	Oatmeal with almond milk, mixed nuts and seeds, sliced strawberries	Breakfast: Toasted Muesli with whole milk and a glass of orange juice.
Mid-morning snack	Apple slices	Chocolate Chip Muffin	Fruit
Lunch	Turkey sandwich with margarine, whole grain bread, lettuce, and tomato; carrot sticks; water	Quinoa salad with mixed vegetables, grilled chicken breast, water	Fast food burger with fries and a soda.
Afternoon snack	Chicken Nuggets from a fast-food shop	Potato Crisps	Packaged cookies.
Dinner	Fried chicken breast, steamed broccoli, mashed potato	Baked salmon, colourful salad, quinoa, water	Baked salmon with lemon and herbs, steamed broccoli, and a side of roasted sweet potatoes.
Evening snack	Popcorn	Ice cream	A handful of almonds and a cup of herbal tea.

The Australian Dietary Guidelines (ADG) and Australian Guide to Healthy Eating (AGtHE) Checklist

Chosen Food Diary	Questions	Circle
Fruit and Vegetables	Are fruits and vegetables included in the diet?	Yes / No
	Are a variety of colours and types of fruits and vegetables consumed?	Yes / No
	Is the recommended daily intake of fruits and vegetables met?	Yes / No
Grains	Are whole grains included in the diet, such as whole wheat bread, or brown rice?	Yes / No
	Are refined grains limited?	Yes / No
	Is the recommended daily intake of grains met?	Yes / No
Protein Foods	Are protein-rich foods included in the diet, such as lean meats, legumes, or tofu?	Yes / No
	Is the consumption of processed or high-fat meats limited?	Yes / No
	Is the recommended daily intake of protein foods met?	Yes / No
Dairy or Dairy Alternatives	Are dairy products or alternatives included in the diet?	Yes / No
	Is the consumption of full-fat dairy products limited?	Yes / No
	Is the recommended daily intake of dairy or alternatives met?	Yes / No
Healthy Fats	Are healthy fats included in the diet, such as avocados, nuts, seeds, or olive oil?	Yes / No
	Is the consumption of saturated and trans fats limited?	Yes / No
	Are the recommended intake levels of healthy fats considered?	Yes / No
Added Sugars	Are added sugars limited in the diet?	Yes / No
	Is the consumption of high-sugar foods or drinks minimised?	Yes / No
	Are the recommended limits for added sugars adhered to?	Yes / No
Sodium	Is the intake of sodium from processed or packaged foods limited?	Yes / No
	Are low-sodium options chosen whenever possible?	Yes / No
	Is the recommended limit for sodium intake followed?	Yes / No
Fluid Intake	Is water the primary source of hydration?	Yes / No
	Is the consumption of sugary beverages limited?	Yes / No
	Is the recommended daily fluid intake met?	Yes / No

Practical Activity Two

Choose Your Own Adventure!

In this task, you have the exciting task of designing and adapting a recipe to suit the needs of various families. Your choices will shape the recipe you make and determine its success.

Step 1: Choose a Family

- ☐ The Johnsons: A family with two working parents and two school-age children.
- ☐ The Parkers: An elderly couple who enjoy cooking and experimenting with new flavours.
- ☐ The Garcias: A single parent with a toddler and a newborn baby.
- ☐ The Smiths: A family with a teenage athlete and a vegetarian parent.

Step 2: Select an Activity Level

- ☐ Sedentary: The family has a mostly inactive lifestyle.
- ☐ Moderately Active: The family engages in regular physical activities a few times a week.
- ☐ Highly Active: The family participates in intense physical activities on a daily basis.

Step 3: Personal Food Tastes and Preferences

Choose from the following options:

- ☐ Comfort Food: The family enjoys hearty and familiar dishes.
- ☐ Adventurous Palate: The family loves trying new flavours and exploring diverse cuisines.
- ☐ Health-Conscious: The family prefers nutritious and light meals.
- ☐ Traditional: The family appreciates classic and timeless recipes.

Step 4: Food Intolerances and Allergies

Select from the following options:

- ☐ Coeliacs Disease: One family member has coeliac's disease.
- ☐ Gluten Intolerance: The family cannot consume gluten-containing ingredients.
- ☐ Dairy Allergy: Two family members are allergic to dairy products.
- ☐ Nut Allergy: One person in the family has a severe nut allergy and must avoid nuts and related products.

Step 5: Cultural and/or Ethical Food Restrictions

Choose one of the following options:

- ☐ Kosher: The family adheres to kosher dietary laws.
- ☐ Halal: The family follows halal dietary guidelines.
- ☐ Vegetarian: The family abstains from consuming meat and fish.
- ☐ Vegan: The family avoids all animal-derived ingredients.

Remember, the success of your recipe depends on how well you incorporate all the chosen elements.

Be creative and enjoy the process of creating a meal that is tailored to meet the unique requirements of each family!

Recipe for Adaption

Stuffed Red Capsicums

Ingredients:

1 medium-sized capsicum, remove tops and seeds
1 tablespoon olive oil
⅓ cup vegetables, diced
⅓ cup protein, diced
⅓ cup grains
1 to 2 tablespoons cheese (optional)
1 to 4 teaspoons sauces
Herbs and Spices

Select your fillings from below:

Vegetable Ideas:

- ☐ Onion
- ☐ Mushrooms
- ☐ Peas
- ☐ Corn
- ☐ Carrots
- ☐ zucchini
- ☐ Spinach
- ☐ Broccoli
- ☐ Cauliflower
- ☐ Eggplant
- ☐ Celery

Protein Ideas:

- ☐ Chicken breast
- ☐ Minced beef
- ☐ Minced turkey
- ☐ Firm tofu
- ☐ Black Beans
- ☐ Tuna

Grain Ideas:

- ☐ White Rice
- ☐ Brown Rice
- ☐ Quinoa
- ☐ Cous Cous
- ☐ Risoni

Spice Ideas:

- ☐ Garlic powder
- ☐ Onion powder
- ☐ Paprika
- ☐ Cumin
- ☐ Salt and Pepper

Herb Ideas:

- ☐ Parsley
- ☐ Basil
- ☐ Oregano
- ☐ Mixed Herbs

Sauce Ideas:

- ☐ Tomato or barbeque
- ☐ Worcestershire
- ☐ Soy Sauce
- ☐ Tomato Paste
- ☐ Chilli
- ☐ Salsa & Sour Cream

Cheesy Ideas:

- ☐ Feta
- ☐ Mozzarella
- ☐ Parmesan
- ☐ Tasty or cheddar
- ☐ Vegan
- ☐ Lactose free

Method:

1. **Remove** the core from the capsicum.
2. **Cook** the grain according to the packet instructions.
3. **Preheat** the oven to 190°C. **Line** the baking dish with baking paper.
4. In a large fry pan, **heat** the olive oil over medium heat.
5. **Sauté** the diced vegetables. **Cook** until the vegetables are tender.
6. **Fry** the protein and **cook** thoroughly.
7. **Stir** in the cooked grain.
8. **Season** with salt and pepper.
9. **Add** 1 tablespoon of water and **mix well**. Add the sauce now or when serving the capsicums in step 14.
10. **Stuff** the hollowed-out capsicums with the filling mixture and **wrap** them in foil. **Place** in the baking dish.
11. **Sprinkle** shredded cheese (if using) on top of each capsicum.
12. **Bake** in the preheated oven for 25-30 minutes, or until the capsicums are tender and the cheese is melted and bubbly.
13. **Allow** the capsicums to cool slightly before serving.
14. **Serve.**

Reflection Questions:

Answer the following questions.

1. What factors influenced your choice of family for the recipe adaptation? How did their stage in life and circumstances shape your decisions?

2. How did the chosen activity level impact ingredient selection, portion sizes, and overall nutritional balance in the recipe?

3. How did the family's personal food tastes and preferences guide your ingredient choices? Did you make any modifications or introduce new ingredients to meet their preferences?

4. How did you adapt the recipe to accommodate food intolerances and allergies? What substitutions or alternative ingredients did you use to ensure safety and enjoyment for those with dietary restrictions?

5. How did cultural and/or ethical food restrictions influence the recipe adaptation? Did you include specific ingredients or remove certain components to align with the family's dietary guidelines?

6. Describe the process of adapting the stuffed capsicum recipe to meet the unique needs of each family. How did you select vegetables, proteins, grains, spices, herbs, sauces, and cheese to create a flavourful and well-rounded dish?

7. Reflect on any challenges you faced during the recipe adaptation. How did you overcome them and find creative solutions?

8. Did you discover any successful or interesting flavour combinations or ingredient substitutions? How did these additions enhance the taste and presentation of the stuffed capsicums?

9. Do you believe the adapted recipe would meet the nutritional needs of the chosen family? Did you create a balanced and nourishing meal that catered to their specific requirements?

10. What did you learn about the importance of flexibility, adaptability, and creativity in recipe development? How can this experience be applied to real-life situations where dietary needs and preferences vary?

Practical Activity Three

Morning Tea Muffin Madness!

You and your classmates are part of a baking club, and you have an exciting task ahead. Your school has requested a variety of muffins for a morning tea event, and they need to cater to different dietary needs. As a group, you will need to come together, discuss the dietary needs, and organise who will cater for which need.

Step 1

Begin a group discussion where everyone brainstorms and identifies the dietary restrictions you need to cater for.

Step 2

As a group, organise yourselves into smaller groups or pairs.

Each group or pair will be responsible for developing a recipe that caters to a specific dietary need.

Step 3

Research and develop your muffin recipes that meet the specific dietary needs assigned to your group.

Refer to this webpage to learn about ingredient substitutions: https://foodstudies.com.au/courses/unit-2-2-3/

Step 4

Prepare a shopping list for your muffins and submit this to your teacher.

Step 5

Bake your muffins!

Set-up a visually appealing display of your muffins. Use decorative elements, such as colourful napkins or labels indicating the dietary needs catered to by each muffin flavour. Ensure clear labelling of potential allergens and be mindful of cross-contamination.

Step 6

After the morning tea event, gather as a group to discuss your experience.

Share feedback from both the guests and you.

Reflect on what you learned about accommodating dietary needs and the importance of inclusive baking.

Discuss any challenges faced and how you could improve in the future.

Basic Muffin Recipe

Ingredients:

250g all-purpose flour	120g unsalted butter, melted and cooled
150g granulated sugar	2 large eggs
2 tsp baking powder	180 ml milk
½ tsp salt	1 tsp vanilla extract

Method:

1. **Preheat** the oven to 180°C. **Line** a muffin tray with paper liners or grease it lightly with butter or cooking spray.
2. In a mixing bowl, **whisk** together the flour, sugar, baking powder, and salt until well combined.
3. In a separate bowl, **whisk** together the melted butter, eggs, milk, and vanilla extract.
4. **Pour** the wet ingredients into the dry ingredients. **Stir** gently with a spatula until just combined. Be careful not to overmix; a few lumps are okay.
5. **Distribute** the batter evenly into the prepared muffin tray, filling each cup about 2/3 full.
6. **Bake** in the preheated oven for approximately 18-20 minutes, or until a toothpick inserted into the centre of a muffin comes out clean.
7. **Remove** the muffin tray from the oven and **allow** the muffins to cool for a few minutes before transferring them to a wire rack to cool completely.

Summary Activity

Designing and Adapting Recipes

Complete the following tasks.

What is the main idea about this key knowledge and key skills?	
Write two or three sentences in your own words. The main idea of this learning intention and outcome is to understand and apply the principles of designing and adapting recipes to accommodate individuals, households, and groups with diverse dietary requirements. This involves taking into account factors such as age, activity level, personal preferences, food intolerances and allergies, cultural and ethical restrictions. The objective is to develop the ability to design and adapt food based on specific dietary needs through practical activities.	
Outline the nutritional needs of each of the following lifespan stages.	
Infancy	Nutrient-dense foods for rapid growth and development. Breast milk or balanced formula for immune support. Introduction of iron, protein, and energy-rich foods after six months.
Childhood	Adequate protein, energy, vitamins, and minerals for steady growth. Balanced nutrition to promote optimal health and prevent future problems. Adaptation of recipes to be nutrient-dense, incorporating whole grains, lean proteins, fruits, and vegetables.
Adolescence	Increased nutritional needs for rapid growth, hormonal changes, and bone development. Diets rich in protein, iron, and calcium. Adapting recipes to create healthier versions of popular fast foods.
Mid-to-late adulthood	Balanced diet to maintain optimal body weight and prevent diet-related diseases. Lower iron requirements but higher fibre needs. Increased need for calcium and vitamin D during menopause. Adapting portion sizes to meet changing energy needs. Promoting a balance of calcium, proteins, carbohydrates, and fats.
Older Adults	Nutrient-dense, low-saturated fat, low-salt, low-added sugar foods. Increased need for calcium, vitamin D, and B12. Softening foods or modifying textures for easier chewing. Lower energy-dense but nutrient-rich recipes to accommodate slower metabolic rates.

Outline how recipes and diets would need to be adapted for each of the following:	
Low activity levels	Adapt portion sizes to align with energy needs. Use cooking methods like baking, grilling, or steaming instead of frying to reduce added fats and oils. Choose lean protein sources and trim visible fat from meats. Incorporate a variety of vegetables and fruits to provide essential nutrients and increase satiety without significantly increasing energy content. Replace refined grains with whole grain options. Reduce the amount of sugar used in recipes and use natural sweeteners or alternatives. Use herbs, spices, and seasoning blends to add flavor to dishes. Ensure meals contain a balance of carbohydrates, proteins, and unsaturated fats.
High activity levels	Increase portion sizes to meet higher energy needs. Focus on consuming adequate carbohydrates to fuel intense physical activity. Include whole grains, fruits, and starchy vegetables. Incorporate sufficient protein to support muscle repair and growth. Include lean meats, poultry, fish, legumes, and dairy products. Hydrate properly with water and consider electrolyte replacement for prolonged or intense exercise. Plan regular meals and snacks to maintain energy levels throughout the day.
Coeliac Disease and Gluten intolerance	Avoid all sources of gluten, including wheat, barley, and rye. Use gluten-free grains and starches like rice, corn, potatoes, amaranth, buckwheat, millet, quinoa, and teff. Replace wheat-based soy sauce with tamari or certified gluten-free soy sauce. Maintain a balanced diet by incorporating whole, unprocessed gluten-free foods. Be mindful of hidden sources of gluten in sauces, sachets, condiments, and snack foods.
Lactose intolerance	Eliminate or reduce lactose-containing dairy products from the diet, such as milk, cheese, yoghurt, and ice cream. Choose lactose-free or low-lactose alternatives, such as lactose-free milk, lactose-free yogurt, and lactose-free cheese. Incorporate non-dairy milk alternatives, such as almond milk, soy milk, rice milk, or oat milk. Ensure adequate calcium intake through non-dairy sources like leafy greens, fortified plant-based milks, tofu, and almonds.
Nut allergy	Completely avoid all types of nuts and products containing nuts, including peanuts, tree nuts (such as almonds, cashews, walnuts, etc.), and nut-derived ingredients like nut oils and nut flours. Use alternative ingredients in recipes to replace nuts, such as seeds (e.g., sunflower seeds, pumpkin seeds), dried fruits, or toasted oats. Be cautious of cross-contamination by ensuring that cooking utensils, cutting boards, and cooking surfaces are thoroughly cleaned to prevent contact with nuts.

	Use nut-free spreads or butters, such as sunflower seed butter or soy nut butter, as substitutes for peanut or nut spreads.
Vegan diets	Eliminate all animal-based products from the diet, including meat, poultry, fish, eggs, dairy, and honey. Focus on plant-based foods such as fruits, vegetables, legumes, whole grains, nuts, and seeds. Ensure sufficient intake of protein by including plant-based protein sources like beans, lentils, tofu, tempeh, seitan, and quinoa. Replace dairy milk with non-dairy alternatives like almond milk, soy milk, oat milk, or coconut milk. Use plant-based oils like olive oil, coconut oil, or avocado oil for cooking and baking. Incorporate calcium-rich foods like leafy greens, tofu, fortified plant-based milk, and nuts to support bone health. Be mindful of potential nutrient deficiencies, particularly vitamin B12, iron, and omega-3 fatty acids, and consider appropriate supplements or fortified foods to ensure nutritional needs are met.

Summary Activity

Designing and Adapting Recipes

Complete the following tasks.

What is the main idea about this key knowledge and key skills?	
Write two or three sentences in your own words. The main idea of this learning intention and outcome is to understand and apply the principles of designing and adapting recipes to accommodate individuals, households, and groups with diverse dietary requirements. This involves taking into account factors such as age, activity level, personal preferences, food intolerances and allergies, cultural and ethical restrictions. The objective is to develop the ability to design and adapt food based on specific dietary needs through practical activities.	
Outline the nutritional needs of each of the following lifespan stages.	
Infancy	Nutrient-dense foods for rapid growth and development. Breast milk or balanced formula for immune support. Introduction of iron, protein, and energy-rich foods after six months.
Childhood	Adequate protein, energy, vitamins, and minerals for steady growth. Balanced nutrition to promote optimal health and prevent future problems. Adaptation of recipes to be nutrient-dense, incorporating whole grains, lean proteins, fruits, and vegetables.
Adolescence	Increased nutritional needs for rapid growth, hormonal changes, and bone development. Diets rich in protein, iron, and calcium. Adapting recipes to create healthier versions of popular fast foods.
Mid-to-late adulthood	Balanced diet to maintain optimal body weight and prevent diet-related diseases. Lower iron requirements but higher fibre needs. Increased need for calcium and vitamin D during menopause. Adapting portion sizes to meet changing energy needs. Promoting a balance of calcium, proteins, carbohydrates, and fats.
Older Adults	Nutrient-dense, low-saturated fat, low-salt, low-added sugar foods. Increased need for calcium, vitamin D, and B12. Softening foods or modifying textures for easier chewing. Lower energy-dense but nutrient-rich recipes to accommodate slower metabolic rates.

Outline how recipes and diets would need to be adapted for each of the following:	
Low activity levels	Adapt portion sizes to align with energy needs. Use cooking methods like baking, grilling, or steaming instead of frying to reduce added fats and oils. Choose lean protein sources and trim visible fat from meats. Incorporate a variety of vegetables and fruits to provide essential nutrients and increase satiety without significantly increasing energy content. Replace refined grains with whole grain options. Reduce the amount of sugar used in recipes and use natural sweeteners or alternatives. Use herbs, spices, and seasoning blends to add flavor to dishes. Ensure meals contain a balance of carbohydrates, proteins, and unsaturated fats.
High activity levels	Increase portion sizes to meet higher energy needs. Focus on consuming adequate carbohydrates to fuel intense physical activity. Include whole grains, fruits, and starchy vegetables. Incorporate sufficient protein to support muscle repair and growth. Include lean meats, poultry, fish, legumes, and dairy products. Hydrate properly with water and consider electrolyte replacement for prolonged or intense exercise. Plan regular meals and snacks to maintain energy levels throughout the day.
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Exam Preparation

Multiple-Choice Questions (5 marks)

Choose the response that is correct or that **best answers** the question.

1. Which nutrient is particularly important for bone health during adolescence and post-menopause?

   a. Iron

   b. Protein

   c. Fibre

   d. Calcium

   The correct answer is D.

   Calcium is particularly important for bone health during adolescence and post-menopause. It helps in building and maintaining strong bones and teeth.

2. What is a characteristic of recipes adapted for mid-to-late adulthood?

   a. Lower portion sizes of meals

   b. Higher amounts of iron

   c. Focus on fast foods and takeaway-style meals

   d. Emphasis on strong flavours and spices

   The correct answer is A.

   Recipes adapted for mid-to-late adulthood often focus on reducing portion sizes of meals to align with changing energy needs and to prevent excessive calorie intake.

3. What cooking methods are recommended for people with low activity levels to reduce the amount of added fats and oils?

   a. Frying.

   b. Baking, grilling, or steaming.

   c. Deep-frying.

   d. Sautéing in oil.

   The correct answer is B.

   Cooking methods such as baking, grilling, or steaming are recommended for people with low activity levels to reduce the amount of added fats and oils compared to frying or deep-frying.

4. Select the ingredient that would need to be substituted for someone with a gluten intolerance in the ingredients list below:

   All-purpose flour, sugar, baking powder, salt, milk, butter or oil, eggs, vanilla extract, blueberries, and nuts.

   a. All-purpose flour

   b. Sugar

   c. Baking powder

   d. All of the above.

   The correct answer is A.

For someone with a gluten intolerance, all-purpose flour would need to be substituted in the recipe. Gluten-free alternatives like rice flour or almond flour can be used instead.

5. Which ingredient is typically not allowed for consumption in a Kosher diet?

   a. Chicken breast

   b. Olive oil

   c. Pork

   d. Salt

The correct answer is C.

In a Kosher diet, pork is typically not allowed for consumption. Kosher dietary laws prohibit the consumption of pork and pork products.

Kosher salt is not the right answer because the term "kosher" in "Kosher salt" refers to its coarse texture and its common use in the koshering process of meat, rather than being directly related to adhering to the laws of kashrut (Jewish dietary laws).

Short Answer Questions (15 marks)

Question 1 (3 marks)

Outline one difference in nutritional needs between adolescence and children and provide a reason for this difference. (3 marks)

For one mark, the student needed to outline one difference in nutritional needs between adolescence and children.

Adolescents require more protein than children.

For two marks, the student needed to provide a reason for this difference.

Adolescence is a period of rapid growth and development, adolescents require more protein to support muscle growth and hormonal changes.

Question 2 (6 marks)

Study the breakfast below.

Ingredients: One fried egg, fried bacon and one slice of wholegrain bread.

Source: https://www.freepik.com/premium-photo/fried-egg-with-toasted-bread-bacon_10484678.htm#page=2&query=BREAKFAST&position=32&from_view=search&track=sph

Evaluate the nutritional value of this breakfast for an active adolescent and recommend improvements. (6 marks)

For one mark, the student needed to make an overall statement about the nutritional value of the breakfast.

While this breakfast does contain some nutrition foods such as the egg and wholegrain bread. The vegetable content could be increased to add extra fibre and the cooking method could be changed from frying to grilling.

For two marks, the student needed to identify two positives aspect of the diet.

The fried egg and grilled bacon provide a good amount of protein, which is important for muscle growth and repair, especially for active adolescents who engage in physical activities. However, bacon does belong in the eat occasionally or discretionary group.

The wholegrain bread contains more fibre than white bread. It is likely to keep the teenager full for longer and provide them with energy for their activity levels.

For two marks, the student needed to identify two negative aspects of the breakfast and suggest improvements.

The foods are fried, which means they could have been cooked in butter. This add saturated fat, grilling the bacon would have been better as the fat drains away during grilling.

The breakfast doesn't contain any vegetables. Including mushrooms, spinach and tomatoes would have helped contribute to their vegetable intake and increase the amount of fibre in the meal.

Question 3 (6 marks)

The owners of a small café have noticed an increasing number of customers with allergies and intolerances coming in seeking suitable food options. Realising the need to cater to this growing demand, they decided to expand their menu to include dishes to meet the needs of people who have intolerances and allergens.

Identify three food allergens or intolerances and describe some meals that the café could provide to meet these dietary needs. (6 marks)

For three marks, the student needed to identify three food allergens or intolerances.

For three marks, the student needed to describe a meal that meet this dietary need.

Food allergen or intolerance	Description of a meal to meet this dietary need
Gluten intolerance and Coeliac disease	Gluten free pasta with a meat and tomato-based sauce
Lactose intolerance	Banana smoothie made with lactose free yoghurt and milk.
Nut allergy	Butter chicken made with sunflower seeds rather than cashews.