

Unit 2.2.1

Sensory, Physiological, Economic, Social and Health Considerations

Key Knowledge 2.2.1

Sensory, physiological, economic, social and health considerations in the comparison of particular meals and dishes prepared in commercial and domestic or small-scale settings.

Key Skills 2.2.1

Understand and apply principles and practices in the sensory evaluation of food products.

Key Skills 2.2.2

Compare and evaluate foods using qualitative or quantitative measurements.

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Key Terms and Definitions

Commercial settings are environments or contexts where products are produced and sold on a large scale, typically for profit.

Domestic settings are environments or contexts within a household or individual's personal space, typically involving products used for personal or household purposes.

Economic considerations are factors related to the financial aspects of a product, such as production costs, market demand, pricing, and profitability.

Health considerations are factors related to the effects of a product on human health, including nutritional value, potential allergens, and potential long-term health consequences.

Physiological considerations are factors related to the physiological responses and effects of a product on the human body, including sensory perception, digestion, metabolism, and overall health impact.

Qualitative measurements are subjective assessments or descriptions of properties or attributes based on non-numerical observations.

Quantitative measurements are objective assessments or measurements of properties or attributes based on numerical data.

Sensory considerations are factors related to the perception and interpretation of sensory information during product evaluation, such as appearance, aroma, taste, and texture.

Sensory evaluation is a scientific process that involves assessing and analysing the characteristics of a product or substance using human senses.

Small-scale settings are environments or contexts where products are produced or used on a limited or small-scale basis, often involving local or artisanal production methods.

Social considerations are factors related to the societal impact and implications of a product, including cultural acceptance, ethical considerations, and sustainability.

Commercial and Domestic or Small-Scale Settings

When comparing meals and dishes prepared in commercial and domestic or small-scale settings, it is essential to consider various factors that influence our choices. This article delves into the sensory, physiological, economic, social, and health considerations that play an important role in evaluating and comparing different food products. By understanding these principles and practices, individuals can make well-informed decisions about the meals they consume.

Commercial Settings

In the context of comparing meals and dishes, commercial settings refer to establishments such as restaurants, cafes, fast food chains, and other food service businesses that prepare and serve food on a larger scale to the general public. These settings often have professional chefs, trained staff, specialised equipment, and processes that ensure efficiency and consistency in the preparation and presentation of meals.

Domestic or small-scale settings

Domestic or small-scale settings refer to individuals' homes, smaller restaurants, catering services, or other non-commercial environments where food is prepared for personal consumption or a limited number of people. These settings typically involve home cooking or small-scale food production, where individuals have more control over the ingredients, cooking methods, and portion sizes.

In domestic or small-scale settings, meals are often prepared by individuals or small teams, and the focus may be on creating personalised dishes that cater to specific tastes, dietary preferences, or cultural traditions. These settings allow for greater flexibility and creativity in meal preparation, as well as the use of fresh, locally sourced ingredients.

Both commercial and domestic or small-scale settings have their unique characteristics and considerations when it comes to comparing meals and dishes. The factors mentioned in the introduction, such as sensory evaluation, physiological responses, economic factors, social influences, and health considerations, apply to both settings but may be experienced differently or have different implications depending on the context.

Commercial Setting



Domestic or Small-scale setting



Sensory, Physiological, Economic, Social and Health Considerations

Considerations when comparing different meals include sensory, physiological, economic, social, and health factors.

Sensory Considerations

Sensory evaluation is essential when comparing food products. It involves assessing the appearance, aroma, taste, texture, and overall palatability of a dish. Our senses play a crucial role in determining the quality and desirability of the food we consume. For example, a visually appealing dish with vibrant colours and an enticing aroma can enhance the dining experience. Similarly, the texture of food, whether it's crispy, tender, or creamy, significantly influences our satisfaction and enjoyment.

When comparing meals, consider the sensory experience of a commercially prepared burger versus a homemade

burger. The visual appeal of the commercial burger, with its perfectly shaped patty, vibrant toppings, and neatly stacked layers, may initially attract individuals. However, the homemade burger, although less aesthetically pleasing, might offer a juicier patty and a distinct homemade flavour, enhancing the overall taste experience and creating a sense of comfort and familiarity.

Another example highlighting sensory considerations is comparing a commercially produced packaged pasta sauce with a homemade sauce. The packaged sauce may offer convenience, but it might lack the complexity and depth of flavours that can be achieved with fresh ingredients and homemade preparation. The sensory experience of the homemade sauce, simmering on the stove, filling the kitchen with the aroma of herbs and spices, and tasting the richness of a sauce made with love and attention to detail can elevate the enjoyment of the meal.

In both examples, the sensory considerations play a vital role in evaluating and comparing the meals. It demonstrates how the sensory experience of food goes beyond mere taste, encompassing aspects like visual appeal, aroma, texture, and the overall experience of consuming the dish. By considering the sensory factors, individuals can make more informed decisions about the meals they choose, ensuring a delightful and satisfying dining experience.

Commercial burger



Homemade burger



Physiological Considerations

When comparing meals, it's important to consider how they affect our bodies. Factors like energy value, nutrients, portion size, and their impact on our health are important. Some meals high in carbohydrates and fats can give us quick energy, but too much can lead to weight gain and health problems. On the other hand, a balanced meal with enough protein, fibre, vitamins, and minerals can support our overall health.

For example, let's compare a fast food meal with a home-cooked meal. Fast food is usually high in unhealthy fats and sugars, providing instant satisfaction and convenience. However, it often lacks the nutrients we need for long-term health. Eating too much fast food can lead to weight gain, high cholesterol, and a higher risk of chronic diseases like diabetes and heart problems.

In contrast, a balanced home-cooked meal has the potential to benefit our bodies. It includes lean proteins like grilled chicken or fish, which give our muscles the necessary building blocks for growth and repair. Whole grains like brown rice or quinoa provide slow-digesting carbohydrates (low-GI) that give us sustained energy and prevent blood sugar spikes. Fibre-rich vegetables like broccoli or spinach help with digestion, make us feel full, and keep our gut healthy.

By choosing balanced home-cooked meals, we ensure that our bodies get the right nutrients, vitamins, and minerals for good health. Considering physiological factors means looking beyond just taste and thinking about the long-term effects on our bodies. Making informed meal choices based on how they benefit our health can lead to overall well-being and a lower risk of dietary-related health conditions.

Evaluating meals from a physiological view enables us to make choices that align with our health goals and improve our well-being. Understanding energy intake, nutrients, portion size, and their impact on our bodies helps us to make better decisions about what we eat. Prioritising balanced meals with plenty of nutrients can result in better health and a higher quality of life.

Economic Considerations

When comparing meals, it's important to consider the economic factors, especially in home or small-scale settings. The cost of ingredients, preparation time, and accessibility are key factors to evaluate. Commercial establishments benefit from lower costs due to their larger scale, while home-cooked meals can be more cost-effective as they don't have additional service charges.

For example, compare a restaurant meal to a homemade meal, using a chicken stir-fry. This meal at a restaurant meal may seem more expensive because they have additional expenses like staff wages and rent. However, when making the same dish at home, individuals can choose affordable ingredients and adjust portion sizes according to their needs.

By taking advantage of sales, discounts, and buying in bulk, individuals can save money on ingredients. Using leftovers from previous meals also helps reduce waste and save money. Planning meals and making a shopping list can help prioritize cost-effective options while still enjoying tasty and nutritious homemade meals.

Cooking at home also allows individuals to develop cooking skills and have fun experimenting with flavours. While there may be initial costs for kitchen tools and pantry essentials, the long-term savings can be significant compared to eating out frequently.

Considering the economic factors in meal comparisons empowers individuals to make budget-friendly choices that fit their financial situation. By carefully assessing ingredient costs, preparation time, and accessibility, individuals can make the most of their resources and enjoy satisfying meals without breaking the bank.

Social Considerations

Food is not only essential for nourishment but also plays a significant role in our social and cultural lives.

Considering social factors is important when comparing meals. Cultural practices, dietary preferences, and social norms influence the types of dishes and meals consumed in different settings.

For example, different communities may have specific dietary restrictions or cultural traditions that determine the ingredients and preparation methods used in their meals. It's important to respect and appreciate these cultural differences when evaluating and comparing meals.

Sharing meals with friends and family is a special social experience. It fosters connectedness, creates memories, and strengthens relationships. When comparing a traditional holiday meal prepared at home to dining out at a restaurant, the home-cooked meal often has sentimental value. It allows individuals to connect with their cultural heritage and share meaningful experiences with loved ones.

On the other hand, dining out offers a different social experience. It provides convenience and the opportunity to explore new cuisines or celebrate special occasions without the responsibilities of cooking and cleaning.

Considering social factors in meal comparisons helps us understand the significance of food beyond its nutritional value. It reminds us of the cultural diversity and the importance of shared meals in building relationships. Whether we choose to enjoy a traditional homemade meal or venture out to try new culinary experiences, social considerations enhance our dining experiences and create meaningful connections with others.

Celebrating a traditional Christmas meal at home



Celebrating at a restaurant



Health Considerations

Health considerations are important when comparing meals. Nutrition plays a vital role in maintaining good health, and the quality of ingredients and cooking methods impact the nutritional value of a meal. Meals made with fresh, whole foods and minimal processing are generally more nutritious than highly processed meals. It's also important to balance macronutrients (carbohydrates, proteins, and fats) and include fruits, vegetables, and whole grains for a healthy diet.

For example, consider comparing a commercially sugary cereal to a homemade oatmeal bowl for breakfast. The sugary cereal may look appealing and be convenient, but it often lacks essential nutrients and contains high levels of added sugars. In contrast, a homemade oatmeal bowl offers the opportunity to modify the breakfast by adding nutrient-rich ingredients like fruits, nuts, and seeds. This creates a balanced breakfast that supports long-term health. By choosing homemade options, individuals have more control over the quality and nutritional content of their meals, leading to improved overall health.

Considering health factors in meal comparisons allows us to make choices that contribute to our well-being. By prioritising fresh, whole foods and avoiding excessive added sugars and unhealthy fats, we can support our long-term health goals. Making informed decisions about our meals based on their nutritional value empowers us to maintain a healthy lifestyle and improve our overall well-being.

Sensory Evaluation

Sensory evaluation helps us assess and understand the sensory qualities of food products. By following principles and practices in sensory evaluation, we can gain insights into the quality, acceptability, and consumer preferences of different foods.

Principles of Sensory Evaluation

- We use our senses (sight, smell, taste, touch, and hearing) to evaluate food. Understanding how our senses work helps in sensory evaluation.
- Food has sensory attributes like appearance, aroma, taste, texture, and sound. These attributes are assessed based on their intensity, quality, and desirability.
- Sensory evaluation involves distinguishing between different products and identifying specific sensory characteristics. This helps us understand the differences between food samples.

Practices in Sensory Evaluation

- We form a group of trained individuals called a sensory panel for evaluation. Panelists should have good sensory abilities and represent the target consumers. Training and calibration sessions ensure consistency in their evaluations.
- Various methods can be used, such as discrimination testing, descriptive analysis, and consumer testing. Discrimination testing checks if there are noticeable differences between samples. Descriptive analysis focuses on identifying and describing sensory attributes. Consumer testing gathers feedback and preferences from consumers.
- A well-planned experimental design helps to obtain accurate results. Several factors, such as the order of samples, sample size, and statistical analysis, are considered to reduce bias and enhance the validity of evaluations.

Comparing and evaluating foods using qualitative or quantitative measurements helps in understanding their sensory properties, nutritional content, and overall quality. These measurements play a crucial role in guiding product development, ensuring quality control, and understanding consumer acceptance.

Qualitative and Quantitative Measurements

Combining qualitative and quantitative measurements allows for a thorough evaluation of food products. This evaluation helps in understanding the sensory attributes, nutritional composition, and consumer acceptance of the food. These measurements play a crucial role in guiding product development, ensuring quality control, and

understanding consumer acceptance. Ultimately, it contributes to enhanced product development, efficient quality control measures, and heightened consumer satisfaction.

Qualitative Measurements

- Descriptive terms are used to characterize sensory attributes such as appearance, aroma, taste, and texture. These terms provide detailed information about the sensory qualities of the food.
- Hedonic scales are used to measure consumer preferences, indicating the overall liking or disliking of a food product.
- Trained assessors compare samples side by side to identify differences and similarities in sensory attributes.

Quantitative Measurements

- Instruments and laboratory techniques are used to measure physical and chemical properties of the food, including pH, moisture, fat content, and colour.
- Specialised equipment measures objective things like texture, viscosity, or sound produced during food consumption.
- Data is collected through numerical rating scales or preference rankings to gather information about consumer liking, willingness to purchase, or frequency of consumption.

Written Activity One

10 Questions!

1. What are the key considerations when comparing meals and dishes prepared in commercial and domestic or small-scale settings?

2. What is the difference between commercial settings and domestic or small-scale settings?

3. Why is sensory evaluation important when comparing food products?

4. Give an example of a sensory consideration when comparing a commercially prepared burger to a homemade burger.

5. What are physiological considerations when comparing meals?

6. Compare the health implications of a fast-food meal to a balanced home-cooked meal.

7. What are economic considerations when comparing meals in home or small-scale settings?

8. Why are social considerations important when comparing meals?

9. How does considering health factors impact meal choices and overall well-being?

10. What are qualitative and quantitative measurements used for in the evaluation of food products?

Written Activity Two

Comparing Meals in Commercial and Domestic Settings

Carefully read the scenario and information about two different restaurants below:

Scenario	
<p><i>You are a food critic tasked with comparing and evaluating two meals—one prepared in a commercial setting and the other in a domestic or small-scale setting. Your goal is to analyse the sensory, physiological, economic, social, and health considerations associated with each meal and provide a comprehensive assessment.</i></p>	
<p>Commercial Setting</p> <p><i>You visit a popular restaurant in town known for its innovative and sophisticated cuisine. The meal consists of a beautifully plated dish prepared by the restaurant's renowned chef. The chef incorporates indigenous Australian flavour combinations and artistic presentation techniques. While the restaurant values sourcing local ingredients, it also places a specific emphasis on utilising indigenous ingredients and supporting indigenous food businesses. The meal is priced higher compared to similar dishes in other establishments.</i></p>	<p>Domestic or Small-Scale Setting</p> <p><i>You visit a family-owned cafe known for its homemade, comforting dishes. The meal is prepared by the cafe's passionate owner, who takes pride in using locally sourced, organic ingredients. The dish embodies traditional flavours from their own culture and nostalgic elements, reminiscent of family recipes passed down through generations. The meal is priced moderately and offers generous portions.</i></p>
<p>Find two images of meals on the internet, in magazines, or in recipe books that you feel represent each meal from the settings described in the scenario above.</p> <p>Include the images below:</p>	

Commercial Setting	Domestic or Small-Scale Setting
Describe the dish:	Describe the dish:

Using the images as a stimulus, answer the following questions:

Sensory Considerations:

1. How does the visual presentation of each dish enhance the overall dining experience?

<i>Commercial Setting</i>	<i>Domestic or Small-Scale Setting</i>

2. In what ways might the sensory properties of each meal provide a memorable experience, and why do you think this?

Physiological Considerations:

1. How do you think the meals would 'fit' into the Australian Guide to Healthy Eating?

<i>Commercial Setting</i>	<i>Domestic or Small-Scale Setting</i>

2. Which meal aligns better with dietary guidelines? Why do you think this?

Economic Considerations:

1. Look at the pictures of each dish; how might customers perceive the value they receive for their money in each of the meals?

2. How would you describe the likely cost of the ingredients used in each meal?

Social Considerations:

1. What dietary preferences or cultural traditions might be associated with each meal in the images?

2. How could these meals contribute to social interactions and the building of relationships?

Conclusion:

What are the potential advantages and disadvantages to consider when deciding between a meal from a commercial setting and a domestic or small-scale setting?

Written Activity Three

Case Studies: Exploring Meal Considerations

In small groups, undertake a brainstorm about each of the questions posed.

Prepare a short presentation to the class summarising your groups analysis and insights.

Case Study 1: School Lunch Menu

How can you make sure the healthier options are visually appealing, tasty, and appealing to students' palates?

Case Study 1: School Lunch Menu

Your school is planning to revamp its lunch menu to provide healthier options for students. The current menu primarily consists of processed foods and sugary snacks. The school administration wants to incorporate more fresh and nutritious meals while considering various factors.

How can you make sure that the menu is nutrient-dense and portion sizes and balance is achieved?

How can you make sure that the cost of ingredients and preparation fit within the school's budget while offering healthier alternatives?

How can you make sure the dietary preferences and cultural influences among the student population are addressed?

How can you make sure the new menu promote overall health and support the students' well-being?

Case Study 2: Local Farmers Market

How can you make sure you highlight the quality and freshness of the produce to attract customers?

Case Study 2: Local Farmers Market

Your community is organising a farmers market to promote local agriculture and provide fresh produce to the residents. The market aims to support local farmers and encourage healthier eating habits.

How can you make sure that the customers are educated customers about the nutritional benefits of these foods?

How can you make sure that you have a balance between making the produce affordable for customers while ensuring fair prices for the farmers?

How can you engage the community and create a sense of belonging and support for local farmers?

How can the farmers market contribute to a healthier community by providing access to fresh and nutritious food options?

Case Study 3: Restaurant Sustainability

How can you make sure that the restaurant dishes are appealing?

Case Study 3: A local restaurant

Your community is organising a farmers market to promote local agriculture and provide fresh produce to the residents. The market aims to support local farmers and encourage healthier eating habits.

How can you make sure that customers are provided with healthy foods?

How can the restaurant use sustainable ingredients and practices and is still profitable?

How can the restaurant communicate their sustainability efforts to customers and engage the community in supporting their initiatives?

How could a restaurants sustainable practices contribute to the overall well-being of customers and the environment?

Case Study 4: Cultural Cuisine Fusion

How can you make sure the fusion dishes appeal to customers?

Case Study 4: Cultural Cuisine Fusion

A restaurant owner is planning to create a menu that combines elements from different cultural cuisines. The goal is to celebrate diversity while creating fusion dishes that incorporate flavours and techniques from multiple traditions.

How can the fusion menu accommodate dietary preferences, allergies, and health-conscious customers?

How can the restaurant strike a balance between offering diverse cuisine and managing ingredient costs?

How can the fusion menu represent a range of cultural traditions and influences?

How can a fusion menu offer a balanced and nutritious options while maintaining the authenticity of each cultural cuisine?

Case Study 5: Home-based Cupcake Business

How could Emily create visually appealing and delicious cupcakes that stand out from the competition?

Case Study 5: Home-based Cupcake Business

Emily is passionate about baking and has started a cupcake business from her home kitchen. She bakes and decorates cupcakes for various occasions, such as birthdays, weddings, and special events. Emily wants to ensure the success of her business while considering different factors

How can Emily price her cupcakes to cover her costs, including ingredients, packaging, and her time and effort, while remaining competitive in the market?

How can Emily engage with the local community and build a loyal customer base?

How can Emily ensure the ingredients she uses to create cupcakes are tolerated by a wide range of customers?

How can she ensure the quality and safety of her cupcakes by following proper food handling and hygiene practices?

Written Activity Four

Commercial vs. Domestic Cooking Showdown

Instructions:

- You will work in groups of 6-8 to debate one of the statements provided.
- Half of your group will form Team A (Agree) and the other half will form Team B (Oppose).
- Each team will need a researcher, speaker and rebuttal specialist.
- You will have 30 minutes to research and prepare your arguments.
- You will need to research some supporting evidence, examples, and relevant data to strengthen your argument.
- You will need to consider both sides of the debate to anticipate counterarguments.

Each group will consist of a researcher, first speaker, second speaker and a third speaker.

Debate Topic One: Meals or dishes prepared in commercial settings offer more convenient than those prepared in domestic or small-scale settings.

This debate topic explores the convenience factor associated with meals or dishes prepared in commercial settings compared to those prepared in domestic or small-scale settings. One team will argue in favor of the statement, while the other team will argue against it.

Here's how the debate can be structured:

- Team A (Affirmative Side): Meals or dishes prepared in commercial settings offer more convenience.
- Team B (Negative Side): Meals or dishes prepared in domestic or small-scale settings are equally or more convenient.

Speech Sequence:

Team A - First Affirmative Speaker

Presents the opening statement for the affirmative side, supporting the idea that meals or dishes prepared in commercial settings offer more convenience.

Introduces arguments.

Provides supporting evidence, examples, and case studies.

Team B - First Negative Speaker

Presents the opening statement for the negative side, arguing that meals or dishes prepared in domestic or small-scale settings are equally or more convenient.

Counters the arguments presented by Team A's first speaker.

Provides supporting evidence and/or examples.

Team A - Second Affirmative Speaker

Delivers a rebuttal speech in response to the arguments raised by Team B's first speaker.

Challenges and refutes the points made by the negative side.

Reinforces the main arguments supporting the convenience of commercial food preparation.

Provides supporting evidence and/or examples.

Team B - Second Negative Speaker

Delivers a rebuttal speech in response to the arguments raised by Team A's second speaker.

Challenges and refutes the points made by the affirmative side.

Repeats the main arguments supporting the convenience of domestic or small-scale food preparation.

Provides supporting evidence and/or examples.

Team A - Third Affirmative Speaker

Delivers the closing statement for the affirmative side.

Summarises the main arguments supporting the convenience of meals or dishes prepared in commercial settings.

Repeats the key points made by the affirmative team.

Makes a final persuasive appeal to the audience.

Team B - Third Negative Speaker

Delivers the closing statement for the negative side.

Summarises the main arguments supporting the convenience of meals or dishes prepared in domestic or small-scale settings.

Reiterates the key points made by the negative team.

Makes a final persuasive appeal to the audience.

Debate Topic: Meals or dishes prepared in domestic or small-scale settings are better than ones prepared in commercial settings.

This debate topic explores the idea that meals or dishes prepared in commercial settings are better than those prepared in domestic or small-scale settings. One team will argue in favor of the statement, while the other team will argue against it.

Here's how the debate can be structured:

- Team A (Affirmative Side): Meals or dishes prepared in domestic or small-scale settings are better.
- Team B (Negative Side): Meals or dishes prepared in commercial settings are better.

Speech Sequence:

Team A - First Affirmative Speaker:

Presents the opening statement for the affirmative side, supporting the idea that meals or dishes prepared in domestic or small-scale settings are better.

Introduces arguments highlighting reasons why meals or dishes prepared in domestic or small-scale settings are better.

Provides supporting evidence and/or examples.

Team B - First Negative Speaker:

Presents the opening statement for the negative side, arguing that meals or dishes prepared in commercial settings are better.

Counters the arguments presented by Team A's first speaker.

Introduces reasons why meals or dishes prepared in commercial settings are better.

Provides supporting evidence and/or examples.

Team A - Second Affirmative Speaker:

Delivers a rebuttal speech in response to the arguments raised by Team B's first speaker.

Challenges and refutes the points made by the other team.

Reinforces the main arguments why meals or dishes prepared in domestic or small-scale settings are better.

Provides additional evidence and/or examples.

Team B - Second Negative Speaker:

Delivers a rebuttal speech in response to the arguments raised by Team A's second speaker.

Challenges and refutes the points made by the other team.

Reinforces the main arguments why meals or dishes prepared in commercial settings are better.

Provides additional evidence, examples, and case studies.

Team A - Third Affirmative Speaker:

Delivers the closing statement for the affirmative side.

Summarises the main arguments supporting the idea that meals or dishes prepared in domestic or small-scale settings are better.

Reiterates the key points made by the affirmative team.

Makes a final persuasive appeal to the audience.

Team B - Third Negative Speaker:

Delivers the closing statement for the negative side.

Summarises the main arguments why meals or dishes prepared in commercial settings are better.

Reiterates the key points made by the negative team.

Makes a final persuasive appeal to the audience.

Practical Activity One

Homemade Versus Commercial Cottage Pies

In this activity, we will be comparing a homemade sweet potato cottage pie and a commercial one. You will evaluate their sensory properties (such as taste, texture, aroma, appearance) and assess their nutritional value using the Australian Guide to Healthy Eating and the Australian Dietary Guidelines.

Instructions:

1. Prepare the commercial sweet potato cottage pie according to the packet instructions.
2. Prepare the homemade sweet potato cottage pie recipe below.
3. Complete the sensory and nutritional analysis activities.

Sweet Potato Beef Cottage Pie

Ingredients:

1 small sweet potato (about 150 grams)	100-120 grams ground beef or lamb
2 teaspoons butter	1/4 cup frozen peas
60 ml milk	1/2 small to medium-sized carrot, diced
Salt and pepper to taste	2 teaspoons tomato paste
2 teaspoons olive oil	1 teaspoon Worcestershire sauce
1/4 medium-sized onion, diced	60 ml beef broth
1 garlic clove, crushed	2 sprigs fresh parsley

To prepare the potatoes:

1. **Half-fill** a saucepan with water and bring to the boil.
2. **Peel** and **dice** the sweet potato into small cubes.
3. **Place** them in the boiling water and **cook** for about 10-15 minutes, or until tender.
4. **Drain** the sweet potatoes and **return** them to the pot.
5. **Add** butter and milk. **Mash** the sweet potatoes until smooth.
6. **Season** with salt and pepper to taste.
7. **Set aside**.

To prepare the filling:

1. In a frypan, **heat** olive oil over medium heat.
2. **Add** the diced onion and minced garlic. **Sauté** until the onion becomes translucent.
3. **Add** the minced beef to the frypan and cook until browned.
Make sure to break up any large chunks of meat.
4. **Stir** in the frozen peas, diced carrots, tomato paste, Worcestershire sauce, and beef broth.
Cook for about 5 minutes, or until the vegetables are slightly tender.
5. **Season** with salt and pepper to taste.

To assemble and bake:

1. **Preheat** your oven to 200°C (180°C fan-forced).
2. **Transfer** the beef and vegetable mixture to an oven-safe dish.
3. **Spread** the mashed sweet potatoes evenly over the top.

4. **Place** the dish in the preheated oven and **bake** for about 20 minutes, or until the sweet potato topping is slightly golden.
5. **Remove** from the oven and let it cool for a few minutes.
6. **Garnish** with chopped parsley if desired.

Sensory and Nutritional Evaluation

In this activity, you will conduct a SWOT (Strengths, Weaknesses, Opportunities, Threats) analysis to compare the sensory and nutritional value of the commercial and homemade sweet potato cottage pies.

Strengths
What nutritional benefits does the commercial pie offer?
Does the homemade pie contain a variety of nutritious ingredients?
Are there any specific strengths in terms of taste, texture, or visual appeal?
Weaknesses
Does the commercial pie contain any ingredients that may be considered unhealthy?
Are there any nutritional deficiencies in the homemade pie?
Does either pie contain excessive amounts of saturated fat, added salt, added sugars, or alcohol?
Are there any sensory aspects (taste, texture) that could be improved in the commercial or homemade pie?

OppORTUNITIES

Are there opportunities to include more vegetables in the commercial pie?

Can the homemade pie be modified to better incorporate all the food groups recommended by the guidelines?

Can the commercial pie be marketed in a way that emphasizes its nutritional value?

Are there any opportunities to enhance the taste, texture, appearance and aroma of the commercial or homemade pie?

THREATS

Are there external factors that may limit the availability of fresh, nutritious ingredients for the commercial pie?

Does the homemade pie face any challenges in terms of time constraints or cooking methods that may affect its adherence to the guidelines?

Are there any threats to the overall nutritional quality of either pie due to additives, preservatives, or processing methods?

Summary Activity

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.	
How do commercial and domestic or small-scale settings differ in the context of meal preparation and service?	
Outline how each of the considerations listed below differ between commercial and domestic or small-scale settings.	
Sensory Considerations	
Physiological Considerations	
Economic considerations	
Social Considerations	

Exam Preparation

Multiple-Choice Questions (5 marks)

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

Question 1

Which of the following best describes a small-scale food business?

- a. A business that produces and sells food products on a large scale for profit.
- b. A business that operates within a household or individual's personal space for personal or household purposes.
- c. An establishment that ensures efficiency and consistency in the preparation and presentation of meals using professional chefs, trained staff, specialised equipment, and processes.
- d. A business that focuses on serving food in restaurants or fast food chains.

Question 2

What kind of establishment typically represents a commercial food setting rather than a small-scale domestic setting?

- a. Café in a housing estate
- b. Restaurant
- c. Home catering business
- d. Church tea room

Question 3

Which of the following sensory aspects are important when evaluating and comparing food products?

- a. Appearance, aroma, taste, and overall palatability.
- b. Packaging, convenience, and freshness.
- c. Ingredients, preparation time, and nutritional value.
- d. Price, brand reputation, and portion size.

Question 4

Which of the following factors should be considered when comparing meals from a physiological perspective?

- a. Taste, convenience, and overall satisfaction.
- b. Cooking methods, recipe complexity, and ingredient variety.
- c. Price, availability, and cultural significance.
- d. Energy value, nutrients, portion size, and impact on health.

Question 5

All of the following are examples of social considerations except:

- a. The ability to share a meal.
- b. The fostering of connectedness creates memories and strengthens relationships.
- c. The sugar content.
- d. The creation of memories.

Short Answer Questions (9 marks)

Question 1 (3 marks)

Explain why it is important to consider physiological factors when choosing meals for our health. Provide an example of one physiological factor.

Question 2 (2 marks)

Compare qualitative and quantitative measurements in the evaluation of food products.

Question 3 (4 marks)

Discuss why meals in a restaurant setting might be more expensive than meals produced in a domestic-style small-scale food business.