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A-level Food and Nutrition

SENIOR Six term 1

TOPIC 1/3: Management of Resources

Competency: The learner manages resources, evaluates their sustainability, and applies practices to improve food production efficiency.

Strategies for Managing Financial Resources in meal planning and preparation

1. Budgeting

- Set a clear food budget for the week or month.
- Allocate funds across categories (proteins, vegetables, staples, beverages).
- Helps avoid overspending and ensures balanced meals.

2. Cost–Benefit Analysis

- Compare the nutritional value versus cost of ingredients.
- Example: beans provide protein at a lower cost than red meat.
- Encourages choosing foods that maximize health benefits per unit cost.

3. Opportunity Cost

- Time spent cooking elaborate meals could be used elsewhere.
- Prepping simple, nutritious meals may save time and money compared to eating out.

4. Economies of Scale

- Buying in bulk reduces per-unit cost (e.g., rice, flour, legumes).
- Batch cooking lowers energy and preparation costs.

5. Waste Minimization

- Apply the principle of **resource efficiency**: plan meals to use leftovers creatively.
- Reduces financial loss from spoiled or unused food.

6. Inventory Management

- Track pantry and fridge items like a business tracks stock.
- Prevents duplicate purchases and ensures older items are used first (FIFO – First In, First Out).

7. Value for Money

- Choose seasonal produce — cheaper and fresher.
- Opt for nutrient-dense foods rather than calorie-dense but low-nutrient options.

8. Cash Flow Management

- Spread purchases across the month to avoid large upfront expenses.
- Plan meals around weekly sales or discounts.

9. Risk Management

- Diversify food sources to avoid reliance on expensive or scarce items.
- Keep staple foods (rice, beans, pasta) as a backup against price fluctuations.

Example Application

Financial Concept	Meal Planning Application	Benefit
Budgeting	Weekly food budget	Prevents overspending
Cost–Benefit Analysis	Compare beans vs meat	More protein per dollar
Economies of Scale	Buy rice in bulk	Lower unit cost
Inventory Management	Track pantry items	Reduce waste
Opportunity Cost	Prep meals vs eating out	Saves time & money
Risk Management	Stock staples	Protects against price hikes

Practical Tips

- Plan meals around **weekly sales flyers**.
- Use **bulk cooking** to save time and money.
- Apply **FIFO** to reduce spoilage.

- Track spending with a simple spreadsheet or app.
- Balance cost with nutrition — don't just buy cheap, buy smart.

Time and Energy management in food production operation

Managing **time and energy in food production operations** is essential for efficiency, cost savings, and consistent quality. It involves planning, organizing, and optimizing processes so that meals are produced with minimal waste of effort, resources, and utilities.

Time Management Strategies

- (i) **Menu Planning in Advance:** Create weekly or monthly menus to streamline ingredient purchasing and preparation.
- (ii) **Standardized Recipes:** Use clear recipes to reduce decision-making time and ensure consistency.
- (iii) **Batch Cooking:** Prepare large quantities at once to save time during peak service hours.
- (iv) **Task Scheduling:** Assign prep tasks (washing, chopping, marinating) at off-peak times to avoid bottlenecks.
- (v) **Workflow Design:** Arrange kitchen layout for smooth movement (e.g., raw food prep area separate from cooking area).
- (vi) **Use of Technology:** Timers, digital inventory systems, and automated appliances reduce manual oversight.

Energy Management Strategies

- (i) **Efficient Equipment Use:** Utilize energy-efficient stoves, ovens, and refrigeration units.
- (ii) **Cook Smart:** Use pressure cookers, induction stoves, or steamers to reduce cooking time and energy.
- (iii) **Batch Energy Use:** Cook multiple items simultaneously when possible to maximize oven or stove use.
- (iv) **Maintenance:** Regular servicing of appliances prevents energy wastage.
- (v) **Cold Chain Management:** Keep refrigerators organized to minimize door opening time and reduce cooling loss.
- (vi) **Lighting and Ventilation:** Use LED lights and proper ventilation systems to lower electricity consumption.

Practical Guidance

- (i) Train staff on **time-saving techniques** (mise en place, portioning).
- (ii) Monitor **energy bills and appliance usage** to identify inefficiencies.
- (iii) Balance **labor schedules** with production needs to avoid idle time.
- (iv) Introduce **performance metrics** (prep time per dish, energy use per meal) to track efficiency.

Thank You

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