

DESIGN AND TECHNOLOGIES PROJECT FOLIO NUTS FOR LIFE



Name:

Class:

Teacher:

Due date:

DESIGN TECHNOLOGIES

Year: 7/8

Unit: NUTS

ASSESSMENT TASK: Project folio

DESIGN CHALLENGE: To design, produce and evaluate healthy snacks that use NUTS as a main ingredient for an adolescent to promote current and future health status. The snacks must be able to be prepared quickly, attractively presented and appeal to adolescents. Ingredients and equipment need to be readily available.

DIMENSIONS TO BE ASSESSED:

- Knowledge and understanding
 - Explaining
- Processes and production skills:
 - Investigating
 - Generating and designing
 - Producing and implementing
 - Evaluating
 - Collaborating and managing



TASK:

1. EXPLANATION

- (a) **Explain** the social and sustainability factors that influence the design of the product to meet the present and future needs of this adolescent.
- (b) **Explain** the features of technologies - cost, time, ingredients, equipment and tools, techniques and processes – that influence the design of products when creating a healthy snack to meet the needs of adolescents.

2. INVESTIGATING AND DEFINING

- (a) **Evaluate** the use of nuts to promote this adolescent's current and future health, by examining the nutritional value of nuts and suggesting healthy products that include nuts.
- (b) **Research** recipe ideas.
- (c) **Analyse** characteristics and properties of nuts that may affect preparation techniques and presentation.
- (d) **Define** the product needs by developing a **Criteria for success table** for a healthy snack for this adolescent.

3. GENERATING AND DESIGNING

- (a) Using the information from your investigation, **generate** designs for a healthy snack using nuts. **Draw/sketch and annotate** (using appropriate technical terms), a minimum of two design ideas.
- (b) Consider the **Criteria for success table** to decide which idea will be your preferred design idea.
- (c) Generate a **Production plan** for the preferred design idea.

4. COLLABORATING AND MANAGING

Present your design idea to your team. Decide which idea best solves the design challenge. Work with team members to prepare for the production of this solution.

5. PRODUCING AND IMPLEMENTING

Use the Production plan to **produce** your team's healthy snack, either at home or at school. Photograph. Annotate the photograph.

6. EVALUATING

Evaluate the process and the product using your **Criteria for success**.

To complete this task, refer to the PowerPoint slides and use the knowledge gained in class and through individual on-line research <https://www.nutsforlife.com.au/>
Write your responses in this booklet.

Background information:

- Define 'Nuts' and give examples of tree nuts.

- Where are Nuts grown in Australia?

- Why are they important to Australia's agricultural industry?

- Where are Nuts found in the Australian Guide to Healthy Eating?

- What is the recommended daily serve for Nuts?

- How much is in a serve?

- List ways Nuts be included in a healthy diet?

- What are some of the barriers to consuming Nuts every day?



PART 1 - EXPLANATION:

- (a) **Explain** how social and sustainability factors may influence the production of a healthy snack for an adolescent.
- (b) **Explain how** the features of technologies - aesthetics, cost, time, ingredients, equipment and tools, techniques and processes - influence the design of products when creating a healthy lunch snack to meet the needs of this adolescent.

Complete the table below to develop your own Design summary, explaining the factors and features that will influence your decisions to meet the need/opportunity outlined in the task.

Design summary:

Who is your client?		
Why do they need it?		
What does it need to do?		
When does the solution need to be completed?		
Social Factors		Sustainability factors
Features of technologies		

PART 2 - INVESTIGATING AND DEFINING:

- (a) **Evaluate** the opportunity to use nuts to promote this adolescent’s current and future health, by examining the nutritional value of nuts and providing recipes that may solve the Design challenge.

Needs of this adolescent:

ADG Food group:

Recommended serving size of nuts

Ways nuts can be incorporated into healthy eating

Nutritional value of nuts

(b) Research healthy recipes using nuts at <https://www.nutsforlife.com.au/nut-recipes/>

List the recipe ideas below.

RECIPE NAME	PHOTOGRAPH

(c) Identify characteristics and properties of nuts that may affect preparation techniques and presentation.

(d) **Define** the product needs by developing a **Criteria for success table** for a healthy snack for this adolescent. Refer to the factors you have investigated to develop this table.

CRITERIA FOR SUCCESS

Hint: Explain the **factors** below to use as criteria to evaluate the production and implementing of your design solution.

FACTORS INFLUENCING DESIGN

- | | |
|---|--|
| <ul style="list-style-type: none"> • Social factors • Sustainable factors | |
|---|--|

FEATURES OF TECHNOLOGIES - PRODUCTION PROCESSES

- | | |
|--|--|
| <ul style="list-style-type: none"> • Equipment and tools available • Skills to use equipment and tools • Food preparation techniques • Ingredients available • Time available • Processes - Use of production plan - Hygiene - Safety | |
|--|--|

END PRODUCT AND SENSORY ANALYSIS

- | | |
|--|--|
| <ul style="list-style-type: none"> • Visual appeal • Taste • Texture • Nutritional quality • Cost | |
|--|--|

PART 3 - GENERATING AND DESIGNING:

- (a) Using the information from your investigation, **generate** designs for a healthy snack using nuts. **Draw/sketch and annotate** (using appropriate technical terms), a minimum of two design ideas.

DESIGN IDEA #1	DESIGN IDEA #2

- (b) Consider the **Criteria for success table** to decide which idea will be your preferred design idea.

MY DECISION: The best snack to produce to solve the problem is _____



(c) Generate a *Production plan* for the preferred design idea.

Name of recipe:		
Ingredients	Utensils	Items/equipment from home
<p>Preparation steps:</p> <p>Prepare self:</p> <p>_____</p> <p>Prepare work station:</p> <p>_____</p> <p>Other preparations:</p> <p>_____</p> <p>Method:</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p> <p>_____</p>		
<p>Clean up procedure:</p> <p>Clear, rinse and stack dishes. Wipe bench and stove top. Wash and dry dishes. Put dishes and utensils away. Check Utensil Kit and return. Sanitise bench, sink and apron.</p>		

PART 4 - COLLABORATING AND MANAGING:

Present your design idea to your team. Decide which idea best solves the design challenge. Work with team members to prepare to produce this solution.

As a team, we have chosen to produce _____
because

PART 5 - PRODUCING AND IMPLEMENTING:

Use the Production plan to **produce** your team's healthy snack.
Take a photograph and attach here.
Annotate the photograph.



PART 6 – EVALUATING:

Evaluate the process and the product using your *Criteria for success*.

CRITERIA	EXPLAIN HOW YOUR PRODUCT SATISFIES THE CRITERIA.

