

THIRD TERM

WEEKLY LESSON NOTES

WEEK 2

Week Ending: 07-07-2023	Day:	Subject: Career Technology	
Duration: 60MINS		Strand: Designing & Making Of Artefacts	
Class: B8	Class Size:	Sub Strand: Design	
Content Standard: B8.5.2.1 Demonstrate knowledge and skills of Designing		Indicator: B8.5.2.1.3: Write Design Specifications	Lesson: 1 of 1
Performance Indicator: Learners can write a design specifications		Core Competencies: CP 6.5: CI 5.4: CI 5.2: CI 6.10:	
Reference: Career Technology Curriculum Pg. 65			
Phase/Duration	Learners Activities	Resources	
PHASE 1: STARTER	<p>Begin the lesson by engaging the students in a discussion about artifacts. Ask questions such as:</p> <p>What is an artifact?</p> <ul style="list-style-type: none"> • Can you give examples of different types of artifacts? • Why are artifacts important in our culture and history? <p>Explain that in this lesson, students will explore the process of designing and making their own artifacts.</p>		
PHASE 2: NEW LEARNING	<p>Introduce the concept of design and its role in creating artifacts. Discuss the elements of design, such as shape, color, texture, and pattern.</p> <p>Show examples of different artifacts, highlighting their unique designs and the materials used.</p> <p>Assign each student or group of students a specific artifact type (e.g., jewelry, sculpture, functional object).</p> <p>Instruct students to research and collect visual references of artifacts within their assigned category, focusing on design elements and techniques used.</p> <p>Brainstorm learners to observe and identify problem situations in the environment. Engage them to write the problem situation</p> <p>Example:</p> <ul style="list-style-type: none"> • <i>Excessive plastic waste generated at a local park due to lack of recycling facilities.</i> • <i>Inefficient public transportation system causing long waiting times and overcrowding during peak hours.</i> • <i>Limited accessibility for individuals with disabilities in public spaces such as sidewalks and parks.</i> <p>Brainstorm learners to explain design brief.</p>	Pictures and charts of food	

A design brief is a document that outlines the objectives, requirements, and constraints of a design project.

Guide learners to write a suitable design brief to address the problems identified above.

Examples:

- *Design and make comprehensive recycling system for the park that encourages visitors to properly dispose of their plastic waste and promotes sustainable practices.*
- *Develop an innovative solution to optimize the public transportation system, reducing wait times, improving passenger flow, and enhancing the overall user experience.*
- *Design and inclusive and accessible infrastructure for public spaces, ensuring that individuals with disabilities can navigate freely and safely, incorporating features such as ramps, tactile indicators, and appropriate signage*

Brainstorm and guide learners to discuss the meaning of design specification.

A design specification is a detailed document that outlines the specific requirements, characteristics, and features of a product, system, or design solution.

Guide learners to develop and write the design specifications based on the areas analyzed, to serve as a guide for idea generation.

Example:

Design Specification I: Waste Management System

- *The waste management system should be able to handle different types of waste, including recyclables, organic waste, and non-recyclable waste.*
- *It should promote proper segregation of waste at the source to facilitate recycling and reduce landfill waste.*
- *The system should be scalable and adaptable to different community sizes and waste generation rates.*

Give reasons for the specifications developed.

Assessment

1. What is the purpose of design specifications in the design process?
2. What are functional requirements, and why are they important in design specifications?
3. How do performance requirements contribute to the overall quality of a design solution?
4. Why is it essential to include user requirements in design specifications?
5. What role do compliance and standards play in design specifications?

PHASE 3: REFLECTION	Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson. Take feedback from learners and summarize the lesson. Ask learners how the lesson will benefit them in their daily lives.	
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Duration: 60MINS		Strand: Designing & Making Of Artefacts	
Class: B8	Class Size:	Sub Strand: Design	
Content Standard: B8.5.2.1 Demonstrate knowledge and skills of Designing		Indicator: B8.5.2.1.4: Generate Ideas/possible solutions	Lesson: 2 of 2
Performance Indicator: Learners can generate Ideas/possible solutions		Core Competencies: CP 6.5: CI 5.4: CI 5.2: CI 6.10:	
Reference: Career Technology Curriculum Pg. 65			
Phase/Duration	Learners Activities	Resources	
PHASE 1: STARTER	<p>Revise with learners to review their understanding in the previous lesson.</p> <p>Share performance indicators with learners.</p>		
PHASE 2: NEW LEARNING	<p>Learners in their groups develop and write the design specifications based on the areas analyzed, to serve as a guide for idea generation.</p> <p>Design Specification 2: Transportation Solution</p> <ul style="list-style-type: none"> ➤ <i>The transportation solution should provide reliable and affordable transportation options to connect underserved areas with major destinations, such as schools, workplaces, and commercial centers.</i> ➤ <i>It should prioritize accessibility for individuals with mobility challenges, including wheelchair users, by ensuring vehicles and infrastructure are designed to accommodate their needs.</i> ➤ <i>The transportation solution should consider sustainability by incorporating eco-friendly technologies, such as electric or hybrid vehicles, and promoting the use of public transportation to reduce traffic congestion and carbon emissions.</i> <p>Use freehand to sketch at least three possible ideas/solutions.</p> <p>Write descriptive/annotated notes on each of the generated ideas</p> <p>Compare and select the best idea or design</p> <p>Develop the selected idea and prepare the working drawings and folios.</p>	Pictures and charts of food	
PHASE 3: REFLECTION	<p>Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.</p> <p>Take feedback from learners and summarize the lesson.</p>		

	Ask learners how the lesson will benefit them in their daily lives.	
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