

SECOND TERM

WEEKLY LESSON NOTES

WEEK 8

Week Ending:	Day:	Subject: Career Technology	
Duration: 60MINS		Strand: Technology	
Class: B9	Class Size:	Sub Strand: Simple Structures And Mechanisms	
Content Standard: B9.4.1.1 Demonstrate knowledge of mechanisms in projects construction		Indicator: B9.4.1.1.3: Design and make simple school technology projects using two or more of the mechanisms	Lesson: 1 of 2
Performance Indicator: Learners can identify and analyze the materials, tools, and mechanisms suitable for creating mockups or prototypes of simple school projects.		Core Competencies: CP 6.5: CI 5.4: CI 5.2: CI 6.10:	
Reference: Career Technology Curriculum Pg. 101			
New words: Materials, Tools, Mechanisms, Simple, Function, Purpose,			
Phase/Duration	Learners Activities	Resources	
PHASE 1: STARTER	<p>Show images or samples of simple school projects like wall clocks, toy cars, or wind turbines.</p> <p>Ask learners to discuss in pairs or small groups what materials, tools, and mechanisms they think are involved in creating these projects.</p> <p>Facilitate a brief class discussion on their initial thoughts and expectations.</p> <p>Share performance indicators with learners.</p>		
PHASE 2: NEW LEARNING	<p>Define and discuss the terms materials, tools, and mechanisms in the context of creating prototypes.</p> <p>Present examples of simple school projects and discuss the role of materials, tools, and mechanisms in bringing these projects to life.</p> <p>Highlight the importance of considering function and purpose when choosing mechanisms for a project.</p>		

	<p>Present a list of simple school projects (e.g., toy cars, wind turbines).</p> <p>In small groups, ask learners to identify the materials and tools needed for each project. Discuss their findings as a class.</p> <p>Discuss different mechanisms that can be used in prototyping (e.g., wheels for toy cars, gears for clocks).</p> <p>Emphasize the importance of choosing mechanisms based on the function and purpose of the project.</p> <p>Assign each group a specific simple school project (e.g., toy cars, wall clocks).</p> <p>Instruct groups to brainstorm and plan the materials, tools, and mechanisms they would use to create a prototype of the assigned project.</p> <p>Each group will present their project plan to the class.</p> <p><u>ASSESSMENT</u></p> <ol style="list-style-type: none"> 1. Imagine you're building a model bridge for a science project. What materials and mechanisms could you use to demonstrate its principles of load-bearing and stability? 2. You want to create a prototype of a sustainable water filtration system for a geography project. What readily available materials and simple mechanisms could you utilize for this purpose? 3. Let's say you're designing a board game for your art class. Which materials and tools would you choose to create visually appealing and functional game pieces and board? 4. Explain how you could use digital tools like 3D printing or simulation software to enhance your school project prototype and showcase your understanding of technology. 	
<p>PHASE 3: REFLECTION</p>	<p>Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.</p>	

	Take feedback from learners and summarize the lesson.	
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Performance Indicator: Learners can plan, design, and create a folio of products/artifacts using appropriate procedures.			Core Competencies: CP 6.5: CI 5.4: CI 5.2: CI 6.10:
Reference: Career Technology Curriculum Pg. 101			
New words: Measurements, Marking out, Cutting, Joining, Assembling			
Phase/Duration	Learners Activities	Resources	
PHASE 1: STARTER	<p>Present a simple design challenge to the class, such as creating a paper tower using limited materials.</p> <p>In small groups, ask learners to quickly sketch their designs and discuss the materials and procedures they would use.</p> <p>Each group presents their design, and the class discusses the different approaches and considerations.</p> <p>Share performance indicators with learners.</p>		
PHASE 2: NEW LEARNING	<p>Define and discuss the terms design and prototyping. Introduce the design process, emphasizing steps like planning, measuring, marking out, cutting, joining, and assembling.</p> <p>Discuss the importance of following appropriate procedures in the design and creation of artifacts.</p> <p>Present a simple design challenge to the class (e.g., creating a small desk organizer using cardboard).</p> <p>In small groups, learners discuss and plan their designs, considering measurements, materials, and the step-by-step procedure.</p>		

	<p>Provide materials such as cardboard, rulers, scissors, and glue.</p> <p>Learners implement their designs, following the appropriate procedures. Emphasize safety measures during the creation process</p> <p>After completing the prototypes, learners test their products for functionality.</p> <p>Discuss the importance of testing to ensure that the artifact serves its intended purpose.</p> <p>Learners write down observations regarding the functionality and potential improvements needed.</p> <p>In groups, learners discuss their observations and propose modifications to enhance their artifacts.</p> <p><u>ASSESSMENT</u></p> <ol style="list-style-type: none"> 1. What kind of products/artifacts are you showcasing? Are they physical objects, digital creations, art pieces, prototypes, or something else entirely? 2. What is the purpose of the folio? Is it for self-promotion, portfolio presentation, academic evaluation, or another reason? 3. Who is your target audience? Who will be viewing the folio? Understanding their expectations and preferences is crucial. 4. Do you have any specific format or presentation style in mind? Would you prefer a physical portfolio, a digital one, or a combination of both? 	
<p>PHASE 3: REFLECTION</p>	<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>	