

FIRST TERM

WEEKLY LESSON NOTES

WEEK 6

Week Ending: 10-11-2023	Day:	Subject: Career Technology (PT)											
Duration: 60MINS		Strand: Materials For Production											
Class: B9	Class Size:	Sub Strand: Resistant Materials											
Content Standard: B9.2.1.1 Demonstrate skills in selecting compliant materials for making products and artefacts		Indicator: B9.2.1.1.1: Discuss the factors that influence the selection of compliant materials	Lesson: 1 of 2										
Performance Indicator: Learners can identify the properties of compliant materials and understand safe practices when working with tools/equipment.		Core Competencies: Communication and Collaboration (CC), Critical Thinking and Problem Solving (CP), Creativity and Innovation											
Reference: Career Technology Curriculum Pg. 83													
New words: Compliant, Materials, Properties, Safety, Tools													
Phase/Duration	Learners Activities		Resources										
PHASE 1: STARTER	<p>Show learners a few everyday items made from different materials.</p> <p>Ask learners to identify which ones are made from compliant materials and justify their choices.</p> <p>Share performance indicators with learners.</p>												
PHASE 2: NEW LEARNING	<p>Briefly review the properties of compliant materials using examples.</p> <table border="1" style="width: 100%; border-collapse: collapse;"> <thead> <tr> <th style="width: 50%;">Compliant Materials</th> <th style="width: 50%;">Properties</th> </tr> </thead> <tbody> <tr> <td>Rubber</td> <td>Highly elastic Resistant to water and many chemicals Good electrical insulator Dampens vibrations</td> </tr> <tr> <td>Silicone</td> <td>Highly flexible and elastic Resistant to UV, ozone, and extremes of temperature Biocompatible (used in medical devices) Non-reactive and stable</td> </tr> <tr> <td>Polyurethane (PU)</td> <td>Good abrasion and wear resistance Resistant to oils, greases, and many solvents Can be formulated to be very soft or very hard Available in foam format as well</td> </tr> <tr> <td>Foams</td> <td>Lightweight</td> </tr> </tbody> </table>		Compliant Materials	Properties	Rubber	Highly elastic Resistant to water and many chemicals Good electrical insulator Dampens vibrations	Silicone	Highly flexible and elastic Resistant to UV, ozone, and extremes of temperature Biocompatible (used in medical devices) Non-reactive and stable	Polyurethane (PU)	Good abrasion and wear resistance Resistant to oils, greases, and many solvents Can be formulated to be very soft or very hard Available in foam format as well	Foams	Lightweight	Pictures and charts of compliant materials
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<p>PHASE 3: REFLECTION</p>	<p data-bbox="448 1436 1187 1495">Use peer discussion and effective questioning to find out from learners what they have learnt during the lesson.</p> <p data-bbox="448 1537 1109 1566">Take feedback from learners and summarize the lesson.</p>					

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Duration: 60MINS		Strand: Materials For Production
Class: B9	Class Size:	Sub Strand: Resistant Materials
Content Standard: B9.2.1.1 Demonstrate skills in selecting compliant materials for making products and artefacts	Indicator: B9.2.1.1.1: Discuss the factors that influence the selection of compliant materials	Lesson: 1 of 2
Performance Indicator: Learners can create artefacts using compliant materials and understand the factors influencing their selection.		Core Competencies: Communication and Collaboration (CC), Critical Thinking and Problem Solving (CP), Creativity and Innovation
Reference: Career Technology Curriculum Pg. 83		
New words: Artefact, Factors, Selection, Appraisal		
Phase/Duration	Learners Activities	Resources
PHASE 1: STARTER	<p>Show learners a simple artefact made from a compliant material.</p> <p>Ask them to guess which compliant material it's made from and its purpose.</p> <p>Share performance indicators with learners.</p>	
PHASE 2: NEW LEARNING	<p>Discuss the reasons why the material for the starter artefact was chosen.</p> <p>Guide learners to identify the factors that influence the selection of compliant materials</p> <p>Example:</p> <ul style="list-style-type: none"> • <i>Skills of the designer</i> • <i>Temperature Resistance</i> • <i>Chemical Resistance</i> • <i>Purpose/function</i> • <i>Durability and Fatigue Life:</i> • <i>Cost</i> • <i>Availability</i> • <i>Density and Weight</i> • <i>UV Resistance</i> <p>Provide a step-by-step demonstration of how to work with a compliant material, from measuring to surface finishing.</p> <p>Discuss the importance of each step and give tips for best practices.</p> <p>Allow learners to choose a compliant material and design a simple artefact.</p>	Pictures and charts of compliant materials

	<p>Learners' measure, cut, fold, join, and finish their artefacts based on what they learned from the demonstration.</p> <p>Once everyone is done, allow learners to display their artefacts.</p> <p>Learners gather in groups, appraising each other's work, discussing the materials chosen, and why.</p> <p><u>Assessment</u></p> <ol style="list-style-type: none"> 1. What are two factors to consider when selecting a compliant material? 2. Why is it important to choose the right material for a task? 3. What is an artefact? 4. How can compliant materials be beneficial in creating artefacts? 	
<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>	