

# FIRST TERM

## WEEKLY LESSON NOTES

### WEEK 6

<b>Week Ending:</b> 17-02-2023	<b>Day:</b>	<b>Subject:</b> Career Technology							
<b>Duration:</b> 60MINS		<b>Strand:</b> Materials For Production							
<b>Class:</b> B8	<b>Class Size:</b>	<b>Sub Strand:</b> Resistant Materials							
<b>Content Standard:</b> B8.2.2.1 Demonstrate understanding of properties of resistant materials		<b>Indicator:</b> B8.2.2.1.2: Describe the properties of building materials	<b>Lesson:</b> 1 of 2						
<b>Performance Indicator:</b> Learners can describe the properties of building materials.		<b>Core Competencies:</b> CP 6.5: CI 5.4: CI 5.2: CI 6.10:							
<b>Reference:</b> Career Technology Curriculum Pg. 47									
<b>Phase/Duration</b>	<b>Learners Activities</b>	<b>Resources</b>							
<b>PHASE 1: STARTER</b>	Recap with learners to find out what they already know about plastic, wood, metal, ceramics and glass.  Share the performance indicators and introduce the lesson.								
<b>PHASE 2: NEW LEARNING</b>	Guide learners to discuss the physical properties of resistant materials. E.g., density, fusibility, electrical conductivity, thermal conductivity  Have learners investigate the working properties of resistant materials; E.g., strength, hardness, toughness, malleability, ductility, elasticity, etc.  Make a chart on the various properties of resistant materials.  e.g. <table border="1" style="margin-left: 20px;"> <thead> <tr> <th>Physical Properties</th> <th>Working Properties</th> </tr> </thead> <tbody> <tr> <td>Density</td> <td>Strength</td> </tr> <tr> <td>Fusibility</td> <td>Hardness</td> </tr> </tbody> </table>	Physical Properties	Working Properties	Density	Strength	Fusibility	Hardness		
Physical Properties	Working Properties								
Density	Strength								
Fusibility	Hardness								
<b>PHASE 3: REFLECTION</b>	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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Phase/Duration	Learners Activities	Resources
<b>PHASE 1: STARTER</b>	<p>Recap with learners to find out what they already know about plastic, wood, metal, ceramics and glass.</p> <p>Share the performance indicators and introduce the lesson.</p>	
<b>PHASE 2: NEW LEARNING</b>	<p>Brainstorm learners to identify some materials used in building. E.g. cement, sand, stones.</p> <p>Brainstorm learners to describe cement as a building material. <i>A cement is a binder, a chemical substance used for construction that sets, hardens and adheres to other materials to bind them together.</i></p> <p>Show learners samples of cement discuss their characteristics.</p> <div data-bbox="555 1100 1133 1348" data-label="Image"> <p>The image shows four bags of GHACEM cement. From left to right: 1. 'EXTRA' (42.5M USES) - Ultra-high Strength for Heavy Structural Applications. 2. 'SUPER STRONG' (42.5R USES) - For more Blocks &amp; Precast Products. 3. 'SUPER RAPID' (32.5R USES) - For Plastering, Block Laying &amp; more. 4. 'SUPER COOL' (32.5N USES) - For general masonry applications.</p> </div> <p><b>Cement</b></p> <ul style="list-style-type: none"> <li>• Provides strength to masonry</li> <li>• Stiffens or hardens easily</li> <li>• Possesses good plasticity</li> <li>• Easily workable</li> <li>• Good moisture resistant</li> </ul> <p>Demonstrate the use of sand in construction and discuss its properties. <i>Sand is a granular material composed of finely divided mineral particles.</i></p> <p>Show learners samples of sand discuss their characteristics.</p>	



Sand

- Grains should be sharp, strong and angular
- Should not contain any hygroscopic salts
- Should not contain clay and slit; usually 3-4% clay and slit is ordinarily permitted for practical reasons.
- There should be no organic matter.

Have learners identify other building materials and discuss their properties in relation to construction.

Guide learners use this building materials to erect a two coarse block work.

Have learners discuss reasons for choosing a type of material for a building project.  
E.g., Cement binds aggregates (sand and stone) in making mortar and concrete

Prepare a chart on properties of building materials.  
Present chart for appraisal

**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.