

APPLY BASIC WORKSHOP CONCEPTS

UNIT CODE: ENG/OS/WEL/CC/01/3/A

UNIT DESCRIPTION

This unit describes the competencies required by a gas welding worker in order to apply basic calculations, measurements, and workshops while carrying out day-to-day welding works.

ELEMENTS AND PERFORMANCE CRITERIA

ELEMENT	PERFORMANCE CRITERIA
These describe the key outcomes which make up workplace function.	These are assessable statements which specify the required level of performance for each of the elements. <i>Bold and italicized terms are elaborated in the Range.</i>
1. Apply basic calculations and measurements	<ul style="list-style-type: none"> 1.1 Computed basic mathematical operations based on 1.2 Solved fractions and ratios problems 1.3 Carried out mensuration and calculations 1.4 Converted units of measurements from metric to imperials based on needs of the industry.
2. Apply geometrical concepts	<ul style="list-style-type: none"> 2.1 Drew different lines based on engineering drawings 2.2 Constructed different plane figures based on geometry principles 2.3 Constructed different angles based on geometry principles 2.4 Performed free hand sketching based on design.
3. Apply shop safety	<ul style="list-style-type: none"> 3.1 Observed safe behaviour in workshop as per workshop procedures 3.2 Demonstrated firefighting skills as per workplace safety procedures 3.3 Demonstrated first aid practices as per first aid procedures. 3.4 Completed industrial-hazards checklist based on OSHA, 2007. 3.5 Demonstrated safe movement of materials based on workplace procedures 3.6 Worn protective clothing as per workplace procedures and OSHA 3.7 Observed machine safety as per the manufacturers specifications 3.8 Identified incidents and/or <i>accident</i> as per workplace procedures.
4. Apply shop tools	<ul style="list-style-type: none"> 4.1 Utilized workshop tools in welding works as per manufacturer's specifications 4.2 Cared and maintained workshop tools as per workplace procedures and best practices

	<p>4.3 Cleaned and stored workshop tools after use as per workplace procedures</p> <p>4.4 Identified incidences and/or accident as per workplace procedures</p>
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REQUIRED SKILLS AND KNOWLEDGE

This section describes the skills and knowledge required for this unit of competency.

Required skills

The individual needs to demonstrate the following skills:

- Communication
- Team Work
- Problem solving
- Self-management

Required knowledge

The individual needs to demonstrate knowledge of:

- Ability to use measuring instruments
- Ability to use gas-welding equipment

EVIDENCE GUIDE

This provides advice on assessment and must be read in conjunction with the performance criteria, required knowledge and understanding and range.

1. Critical aspects of competency	<p>Assessment requires evidence that the candidate:</p> <p>1.1 Computed basic mathematical operations</p> <p>1.2 Solved fractions and ratios problems</p> <p>1.3 Carried out mensuration and calculations</p> <p>1.4 Performed free hand sketching</p> <p>1.5 Observed safe behaviour in workshop as per workshop procedures</p> <p>1.6 Performed first aid practices as per first aid procedures</p> <p>1.7 Completed industrial-hazards checklist</p> <p>1.8 wore protective clothing</p> <p>1.9 Observed machine safety</p> <p>1.10 Utilized workshop tools in welding works as per manufacturer's specifications</p>
2. Resource Implications	<p>The following resources should be provided:</p> <p>2.1 Equipped and conducive workplace</p> <p>2.2 Banners/charts of safety signs</p>

	<p>2.3 Materials relevant to the tasks</p> <p>2.4 Tools and equipment relevant to the task</p> <p>2.5 First aid tool kit</p>
3. Methods of Assessment	<p>Competency may be assessed through:</p> <p>3.1 Observation</p> <p>3.2 Oral questioning</p> <p>3.3 Written test</p> <p>3.4 Portfolio of Evidence</p> <p>3.5 Interview</p> <p>3.6 Third party report</p>
4. Context of assessment	<p>4.1 On-the-job</p> <p>4.2 Off-the –job</p> <p>4.3 During Industrial attachment</p>
5. Guidance information for assessment	<p>Holistic assessment with other units relevant to the industry sector, workplace and job role is recommended.</p>

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