



Province of the
EASTERN CAPE
EDUCATION

DIRECTORATE SENIOR CURRICULUM MANAGEMENT (SEN-FET)

HOME SCHOOLING SELF-STUDY WORKSHEET

SUBJECT	WELDING & METALWORK	GRADE	12	DATE	20 MAY 2020
TOPIC	JOINING METHODS	TERM 1 REVISION	()	TERM 2 CONTENT	(√)
TIME ALLOCATION	2 hrs.	<u>TIPS TO KEEP HEALTHY</u>			
INSTRUCTIONS	THE QUESTIONS PROVIDED ARE BASED ON THE TOPIC ON JOINING METHODS, STRESSES AND DISTORTIONS: CAREFULLY GO THROUGH ALL THE QUESTIONS PROVIDED AND ANSWER THEM.	1. WASH YOUR HANDS thoroughly with soap and water for at least 20 seconds. Alternatively, use hand sanitizer with an alcohol content of at least 60%. 2. PRACTICE SOCIAL DISTANCING – keep a distance of 1m away from other people.			

		<p>3. PRACTISE GOOD RESPIRATORY HYGIENE: cough or sneeze into your elbow or tissue and dispose of the tissue immediately after use.</p> <p>4. TRY NOT TO TOUCH YOUR FACE. The virus can be transferred from your hands to your nose, mouth and eyes. It can then enter your body and make you sick.</p> <p>5. STAY AT HOME.</p>
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QUESTION 1 JOINING METHODS (INSPECTION OF WELD)

- 1.1 Name THREE most widely used non-destructive weld testing methods.
- 1.2 Describe the nick-break method of testing a weld.
- 1.3 List FOUR factors that a good arc weld depends on.
- 1.4 Give FOUR welding defects that may occur after the welding process.
- 1.5 List any TWO methods one can use to help reduce stress on a welded joint.
- 1.6 Explain the terminology welding spatter.
- 1.7 What is the main cause of welding spatter?
- 1.8 Which flame in oxy-acetylene is normally used for welding mild steel?

QUESTION 2 JOINING METHODS (STRESSES AND DISTORTION)

2.1 Make neat sketches of any THREE methods you would use to reduce distortion during welding.

2.2 Mention FOUR different types of cracks in welding joints.

2.3 What is the criteria when conducting a free bend test?

2.4 Give THREE advantages of using liquid dye penetrant testing over X-ray or ultrasonic testing.