

KFE4Skills Competition Spec – WELDING

KFE4Skills general rules and guidance latest version is at: <https://www.kentfurthereducation.org/skills-competitions-1>

Relevant WSUK Occupational Standard: <https://api.worldskills.org/resources/download/12317/14920/15848?l=en>

	Section	Criteria Guidance	Spec Criteria
1	Entry Criteria	Entrants must be in education and/or employment with training, at one of the KFE college organisations (EKC Group, MidKent College and North Kent College (including Hadlow College), and/or have completed or be undertaking a relevant Level 2 or 3 or above programme within the last 12 months.	
2	Entrant Numbers	<ul style="list-style-type: none"> ○ Each college organisation (not campus) may register up to (2) students. ○ Confirmed max number of students in total showcase: 6 <p>For the Welding Skills Competition, you must be working towards a Level 2 or 3 Engineering qualification / Fabrication and Welding.</p>	
3	Competition Prep	<p>Preparatory Brief</p> <p>The welding industry needs you, the <i>Welding</i> and fabrication <i>Industry</i> is poised for significant growth, but also change that will present many benefits and challenges. You will complete 4 welding tasks.</p> <p>Wearing the correct PPE all Parts to be welded are to be clean and prepared as per standard welding requirements.</p> <ul style="list-style-type: none"> ○ Task 1 complete a Butt Weld 150x5 mm Strap ○ Task 2 Complete a multiple weld joint ○ Task 3 Produce the welded joint as per the pre competition submission of the welding joint and process of your choice that highlights your welding skills. 	
4	Core Competency	<ul style="list-style-type: none"> ○ Demonstrate your knowledge of the requirements of H&S in relation to the fabrication and welding processes and environment. Adhere to procedures or systems in place for risk assessment. ○ Prepare the work area for the welding process to be completed ensuring the safety of others. ○ Check all equipment and set parameters for the selected welding process. ○ Ensure all tasks, are tack welded in situ before commencing final welds. 	

		<ul style="list-style-type: none"> ○ On completion of task, make safe the work area, and repeat 1-4 on the remaining tasks.
5	Duration	<ul style="list-style-type: none"> ○ 5-6 hours ○ Additional time for familiarisation, health and Safety and general event briefings, judging and awards should be added to this time.
6	The Skills Competition Task Details	<p>Pre-competition Submissions</p> <p>Produce a drawing of a welded joint and write a review of a welding process that would best highlight your welding skills. Ensure welding symbols and dimensions and material specifications are in place. Write a brief explanation as to why you have chosen this to highlight your skills.</p> <p>Scoring will comprise of a Pass, Near Pass, or Fail in line with the core competences 1-4.</p> <p>Live Competition Brief</p> <p>Task 1</p> <ul style="list-style-type: none"> ○ Produce a Butt Weld using Mild steel 150x50x5mm, in the MMA welding process, Position PA, Weld to be tacked, and distortion controlled. ○ Full penetration is required. BS 4872. <p>Task 2</p> <ul style="list-style-type: none"> ○ Complete multiple welds as per drawing, mild steel 5x 150x50x5mm, 1x 150x90x5mm. Welds to be tacked at appropriate intervals and joint accuracy checked before final welding. <p>Task 3</p> <ul style="list-style-type: none"> ○ This is a personal choice based task to be confirmed by each competitor as per the pre-competition submission section above.

7	Marking & Assessment Requirements	<p>Each competition module will be assessed and marked independently of any other competition activity, using objective and judgement criteria or a combination of both during each task. For all objective criteria, the following measurement will be used:</p> <p>Pass =3 Near Pass = 1.5 Fail = 0</p> <p>Compliance of H&S in the practical assessment /tasks P, NP, Fail Preparation of work area P NP, Fail Correct use and set up of equipment and tooling P NP, Fail Completion of weld criteria P, NP, Fail Correct shut down procedure and work area tidy P, NP, Fail</p> <p>Task 3 – Personal choice</p> <p>Innovation 1-5 Completion of task 1-5 Verbal presentation / description of task 1-5 Quality overall 1-5 Time management 1-5</p> <p>Welding symbols (Multiple weld joint drawing) 1 mark for each</p>
8	Judges & Marking	<p>The KFE competition will use marking guides best suited to the industry event. An example scoring sheet is below at appendix 1.</p> <p>Judges will be selected from the expert KFE staff drawn from various colleges. Panels will normally number three to five judges and in some cases may include an external judge from the industry sector or an awarding body. Judges’ decisions are final in all instances, although scoring will be open and transparent.</p>
9	Student Support Required	<ul style="list-style-type: none"> ○ Not applicable
10	Resources	<p>Competitors are responsible for providing all consumable products and equipment needed for the competition.</p>

		Normal conditions apply to working safety in a fabrication and welding environment, as per legislation. Pen for marking weld symbols. Correct PPE is therefore essential and competitors should bring with them the items they normally utilise in their college training setting. All tools, machinery and materials are to be supplied.
11	Health & Safety	See relevant risk assessments and additional competition round specific rules and guidance requirements.
12	Risk Assessment	<ul style="list-style-type: none"> ○ The host college must have completed a relevant risk assessment and filed this centrally for KFE4Skills. ○ Participating visiting colleges should complete risk assessments relevant to their event participation.
13	Competition Spec additional rules and requirements	A completed registration is a confirmation that a competitor has agreed to the overall rules and specific competition rules. All electrical equipment must be PAT tested and labelled before using at the competition and all the supporting equipment must be fit for purpose.

JUDGE MARKING SHEET - WELDING

Competitor	College	Score Task 1	Score Task 2	Score Task 3	Total Score

Comments:

Use this space for any specific comments noting the competitors as appropriate.