

Task Sheet: Create your significant *metal* piece

Provided by: University "St. Kliment Ohridski" –Bitola, Faculty of security - Skopje

General information of task for teachers

Title of the lesson plan / task sheet	Create your significant <i>metal</i> piece
Brief description of the competences the students will learn (including, for example, which scientific theory is based on)	<ul style="list-style-type: none"> • In this lesson, the students will develop competences related to argon welding techniques. The lesson is based on the principles of gas shielding, heat control, and the art of welding. • Will learn how to use specific tools and be creative • Create piece which represents something meaningful to them
Specialty/target group (if applicable)	Student in basic knowledge in Argon
Learning outcome(s) for the vocational profession	<ul style="list-style-type: none"> • Understand the scientific principles behind argon gas shielding in welding. • Operate argon welding equipment safely and effectively. • Demonstrate control over heat settings and welding techniques. • Produce high-quality welds on various materials. • Express their creativity • Self-searching and self-awareness • Work in teams and offer help
Tools needed for this lesson plan/ task sheet (if applicable)	<ul style="list-style-type: none"> • Argon welding equipment (welder, gas cylinder, torch, filler material) • Welding safety gear (helmet, gloves, apron, etc.) • Welding materials (metal pieces for practice) • Visual aids (diagrams of welding processes) - optional • Whiteboard and markers (or notebooks) • Welding manuals and guides
Approximate time to complete the task	<p>This lesson plan is designed for a 4-hour session, allowing time for theory and practical application.</p> <ol style="list-style-type: none"> 1. Theory and demonstration – 1 hour 2. Practical part and creating their own pieces – 3 hours
Suggested more comprehensive methodical guide for doing / carrying out the task (for the teacher or student)	<ul style="list-style-type: none"> • Setting a specific safety rules and goals. • Ask them to self-analyze and think



	<p>why they are willing to learn how to work with metals and what are they going to create as significant piece.</p> <ul style="list-style-type: none"> • Requesting answers from the students about the work done, about the experience and satisfaction, about the challenges they faced and the possible solutions to overcome them.
- Warming up	<ul style="list-style-type: none"> • Begin with a discussion on the importance of argon welding in various industries and its impact on quality and safety. • Add discussion of ways of expressing their selves (through music, art etc.)
- Explanation for the students at the start	<ul style="list-style-type: none"> • Provide an overview of argon welding and the science behind gas shielding. Explain the components of argon welding equipment and their functions. • Explain to them that besides they are going to learn the basics of Argon Welding, they are going to have a possibility to self-search and create some metal piece that represent something meaningful to them • Explain why it is important to show their filings and express themselves
- Task description for the students	<ul style="list-style-type: none"> • Demonstrate how to set up the welding equipment, control heat settings, and perform different welding techniques (e.g., TIG welding). • Emphasize safety procedures • Ask them to think a little bit about themselves and what it is something positive that represent them • Ask them to draw in a notebook what they want and expect to create at the end of the lesson which is meaningful to them (why)
- Additional activities for the students	<ul style="list-style-type: none"> • Divide students into pairs. Each pair practices setting up the equipment and performing welding on metal pieces. • Encourage experimenting with different settings and techniques. • When you feel that they are ready,

	suggest them to start working individually on their piece, but to help the others if needed.
- Extra resources for learners	<ul style="list-style-type: none"> • Share links to online tutorials, welding safety guidelines, and resources about various welding applications. Provide handouts with additional information.
- Self-reflection for students	<ul style="list-style-type: none"> • At the end of the lesson, have students reflect on the welding techniques they practiced, challenges they faced, and the importance of safety in argon welding. • Ask the students to share their pieces and explain what it is and what it is representing (why it is important to them)
- Feedback on the solution (if applicable) / Possibility to check	<ul style="list-style-type: none"> • Offer feedback on the welds produced by students, focusing on quality, technique, and safety. • Provide guidance for improvement.
License information (if we have a general one on the website, it is not necessary separately for each educational material)	<i>This is not necessary for this task.</i>

Additional Useful Materials for the VET Course Argon Welder:

- Visual aids depicting welding processes and equipment.
- Welding manuals and safety guidelines.
- Access to various metal pieces for welding practice.
- Online resources with welding technique videos and safety protocols.
- Welding charts and reference materials for heat settings.
- Safety posters and signage for the welding area.