UNIT 3. WHAT DO WELDERS DO

3.1. Vocabulary

Ex. 1. *Match the words with their definitions.*

1. steel beam	a. specific adjustments made on a welding machine to control factors such as voltage, current, and speed during the welding process.
2. stable weld	b. a welding process that uses a flux-coated electrode to generate an electric arc for joining metal pieces together.
3. electric current	c. a structural member made of steel used to support heavy loads in construction projects.
4. spot welding	d. a filler material used in welding to provide additional metal to the joint being welded.
5. hand weld	e. a welding process that involves feeding a continuous solid wire electrode under a blanket of granular flux to create a molten weld pool.
6. settings	f. a manual welding technique that involves holding the welding torch or electrode holder by hand during the welding process.
7. unskilled welder	g. a strong and secure joint created by fusing two metal pieces together through the welding process.
8. shielded metal arc welding	h. the flow of electric charge through a conductor required for generating heat in the welding process.

9. welding rod	i. a person lacking expertise in joining metal pieces together using heat and pressure.
10. welding wire	j. a manufacturing process where products are assembled sequentially by different workers at various stations.
11. assembly line	k. a type of resistance welding used to join two or more metal surfaces together at small points.
12. submerged arc welding	l. a consumable electrode used in the welding process to create an electric arc for melting metals.

Ex. 2. *Complete the sentences with the given words:*

steel beam, electric, stable weld, welding rod, metal arc, welding wire, hand, assembly line, Submerged, spot welding, settings, unskilled welder

The _____(1) struggled to join the pieces of metal together accurately.

Working on the _____(2) requires precise welding skills for efficiency.

He quickly mastered _____(3) technique in his advanced welding class.

The _____(4) snapped as he tried to mend the broken steel beam.

Adjusting the _____(5) on the welding machine is crucial for a successful weld.

After hours of practice, he finally achieved a _____(6) on the metal surface.

She preferred _____(7) weld small projects for more control over the process.

A _____(8) was lifted into place for the welding work to begin.

The _____(9) current sparked and the welding rod glowed brightly.

He carefully selected the appropriate _____(10) for the job at hand.

Shielded _____(11) welding technique is commonly used for construction projects.

_____(12) arc welding is known for its high productivity and efficiency in large-scale projects.

3.2. Grammar

Ex. 1. *Put the words in the correct order.*

1. welders / eyesight / have / good / a / must / hand / steady / and
2. rewarding / physically / be / can / but / demanding / the / job
3. bond / melting / strong / create / involves / to / welding / metal
4. hands / enjoy / with / you / your / and / working / do / tools?
5. welder / become / to / skilled / is / necessary / a / training / proper

3.3. Reading

Ex. 1. *Read the text.*

What Welders Do

Welders are skilled workers who join or cut metal parts. They use welding machines and tools to heat and melt metal, so that it can be joined together. Welding is used in a wide variety of industries, including construction, manufacturing, and automotive.

The work of a welder can vary depending on the industry and specific job. Some common tasks include:

- Reading blueprints and plans: Welders need to understand technical drawings and instructions in order to know how to assemble and weld metal parts correctly.

- Preparing materials: This involves cleaning and smoothing the surfaces of the metal pieces that will be welded. Welders may also need to position and secure these pieces using clamps or other tools.

- Operating welding equipment: Welders use various types of welding machines, such as arc welders, gas torches, and laser welders. They adjust the settings on these machines and carefully manipulate them to create the desired weld.

- Inspecting finished products: After completing a weld, welders check their work to ensure that it meets the required specifications. They may use tools like gauges, calipers, or X-ray machines to verify the quality of the weld.

Welding can be physically demanding and sometimes involves working in uncomfortable positions or tight spaces. It also requires a high level of concentration and attention to detail, as even a small mistake can lead to a weak or faulty weld.

To become a welder, most people complete formal training programs at technical schools or community colleges. These programs teach the necessary skills and provide hands-on practice with different types of welding equipment. Some employers also offer on-the-job training for entry-level positions.

In addition to technical skills, welders should have good manual dexterity, hand-eye coordination, and problem-solving abilities. They must be able to follow safety procedures and use protective gear, as welding can be hazardous due to the intense heat and bright light produced.

With experience, welders can advance to more specialized roles, such as pipefitters or underwater welders. Some may also choose to become welding inspectors or supervisors. The demand for welders is expected to remain strong, especially in industries like construction and manufacturing that rely heavily on metalwork.

Ex. 2. *Answer the questions.*

1. What are some common tasks that welders perform?

2. How do welders prepare materials before welding?

3. What types of welding machines do welders use?

4. How do welders inspect finished products after completing a weld?

5. What skills and abilities are important for welders to have besides technical skills?

6. Where do most people complete formal training programs to become welders?

7. What are some specialized roles that welders can advance to with experience?

3.4. Communication

Ex. 1. *Make sentences using the following words:*

1. heat/pieces/together

2. construction/manufacturing/industries

3. protective/gloves/helmets

4. important/follow/safety

5. pass/torch/please