THE HISTORY OF WELDING IN ENGLISH-SPEAKING COUNTRIES

22.1. Vocabulary

Ex. 1. *Match the words with their Russian equivalents.*

1. weapon 	a. известь
2. appear	b. вал тягового двигателя
3. clay	c. продвижение
4. rear axle	d. задний мост (ось)
5. aim	e. метод опрессовки
6. allied	f. глина
7. heavy-coated	g. оружие
8. lime	h. появляться
9. motor shaft	i. цель
10. advance	j. подходящий
11. extruding	k. плотно покрытый
12. suitable	l. смежный

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

allied, Extruding, suitable, aim, lime, Clay, advance, weapon, appear, motor shaft, axle, heavy-coated

His goal is to _____(1) his welding skills in the workshop.

The main _____(2) of this project is to create a strong bond.

The materials used for welding are often _____(3) with construction work.

Make sure to use _____(4) gloves when handling hot materials.

Welders sometimes use _____(5) to clean surfaces before welding.

The _____(6) provides power to the welding equipment.

The rear _____(7) plays a crucial role in welding machines.

It's important to choose _____(8) tools for each welding task.

A welding torch is an essential _____(9) for any welder.

When you start welding, sparks _____(10) on the metal surface.

_____(11) is not typically used in welding, but some artists incorporate it.

_____(12) can be a helpful method in certain types of welding.

22.2. Word Formation

Ex. 1. *Change the form of the words to complete the sentences.*

1. The organization operates on a _____ (profit) basis to help the community.

2. He is a _____ (resident) of this state but works here.

3. The material used in the construction is _____ (metallic) and lightweight.

4. These items are _____ (consumable) and can be reused multiple times.

22.3. Reading

Ex. 1. *Read the text.*

Welding is a process that has been used for thousands of years. In English-speaking countries, its history goes back to ancient times. Early blacksmiths used welding techniques to create tools and weapons. However, modern welding as we know it began in the 19th century.

In the early 1800s, Sir Humphry Davy, a British chemist, discovered the electric arc, which paved the way for modern welding methods. Later that century, two American inventors, Elihu Thomson and Charles L. Coffin, made significant advancements. Thomson developed the first resistance welding machines, and Coffin patented a process for arc welding.

During World War I, there was a significant increase in the use of welding, especially in shipbuilding. The ability to create strong, reliable joints quickly made welding essential for war efforts. The development of gas welding and cutting by French engineer Edmond Fouché also played a major role during this period.

In the mid-20th century, welding technology continued to evolve. The introduction of new techniques such as gas tungsten arc welding (GTAW) and gas metal arc welding (GMAW) revolutionized the industry. These methods offered greater precision and control, making them popular in various industries, including aerospace and automotive manufacturing.

Today, welding is a key skill in many industries. In countries like the United States, Canada, and the United Kingdom, welding professionals are in high demand. The ongoing development of new materials and techniques ensures that welding will remain a vital part of modern manufacturing and construction for years to come.

Ex. 2. *Answer the questions.*

1. How far back does the history of welding in English-speaking countries go?

2. Who discovered the electric arc in the early 1800s and what impact did it have on welding?

3. What significant advancements were made by Elihu Thomson and Charles L. Coffin in the 19th century?

4. Why did the use of welding increase significantly during World War I?

5. What role did French engineer Edmond Fouché play in the development of welding during World War I?

6. How did welding technology continue to evolve in the mid-20th century?

7. In which industries are techniques like gas tungsten arc welding (GTAW) and gas metal arc welding (GMAW) popular today?

22.4. Communication

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

1. Welding/used/centuries
2. Industrial/Revolution/advanced
3. Crucial/role/building
4. Significant/historical/events
5. Skilled/welders/demand
6. Technology/evolve/improve
7. Essential/part/manufacturing
8. Think/welding/important