**Тема:**  «Основные понятия в электротехнике. Словарь профессионала»

**Цель:** Повторить грамматический материал , продолжить изучать лексическую тему «электричество».

**Задачи:** Отработать навык работы (в т.ч. перевода) с профессиональной лексикой по теме «электричество», повторить тематический материал, актуализировать имеющиеся знания.

**Специальность:** 13.02.09 Монтаж эксплуатации линий электропередачи, 13.02.11 Техническая эксплуатация и обслуживание электрического и электромеханического оборудования (по отраслям)

**Время выполнения:** 180 минут

1. **Work with the glossary**
2. **Read the text**
3. **Memorize the rule**
4. **Do the tasks**

**Glossary:**

Electricity (Electrician)

Voltage

Alternating\ direct current

Circuit (elements)

Breaker (fuse)

Resistance (resistor)

Capacitance (capacitor)

Terminals

Input\ output

Load

Wire\cable\path-

Earth (earthing)

Switch (noun)

Field (magneti\electrical)

EMF (ElectroMotive Force)

Insulator

Conductor (semiconductor)

Fault

Alive

To connect (disconnect)

**The second positive revolution**

*Electricity itself has always been stirring people. Invisible thing akin to magic that makes machinery work is more alike a supernatural craft than a reality*. But luckily for us electricity though unseen, yet affecting. From the very beginning electricity has been a result of friction. *Pat a cat with dry hand and see the sparkle, the feeling of a charge is also attached.* The static electricity wasn’t a surprise, but it has really gave an incredible start to physics of electricity. Then first dynamo machine has appeared and it was inevitable, because such a massive effect couldn’t stay ignored. Electricity has always been hiding a mysterious amount of possibilities, and this is the very thing, that still captures human mind*. Electricity has it’s field, amperage, direction, shape, voltage, temper and rider list, just in case you would want to hire it somehow*. We learnt it’s rules and soon have conquered it completely. Nowadays we have all the basic (and even more) information of how current behaves and what instrument it needs to be tamed. Even we know it so well, we still suffer of our negligence and arrogance and it does look dull, if just compared with the potential hidden abilities of this phenomenon. Don’t understand the clue? Well, Nicola Tesla did. I only hope you know, that the idea of wireless power transmission had first been figured out by him. Surprised*? There are some more ideas of his: x-rays technology, radiocontrolling, electromechanical oscillator, “witchcraft” car and well-known alternating current as well.* Nowadays we can tell apart the every single circuit element, make a close or open circuit, we are informed enough to live next to the high-voltage electricity and stay safe and sound. Once a fire let our ancestors fundamentally change our life, now electricity took it’s turn. It is a real win for a humanity.

1. **Translate the lines given in italics.**
2. **Find equivalents for the followings:**
3. Весьма ощутимо
4. Многообещающее явление
5. Будоражат воображение
6. Страдать от небрежности
7. Отличить
8. Быть в безопасности
9. Огромное достижение
10. **Match the element with it’s function:**

|  |  |
| --- | --- |
| 1. **Fuse** | 1. are used to reduce current flow, adjust signal levels, to divide voltages, bias active elements, and terminate transmission lines, among other uses |
| 1. **Earth** | 1. stores and releases electricity in a circuit |
| 1. **Resistor** | 1. operates to provide overcurrent protection of an electrical circuit. |
| 1. **Capacitor** | 1. is used to protect you from an electric shock |
| 1. **Switch** | 1. disconnect or connect the conducting path in an electrical circuit, interrupting the electric current or diverting it from one conductor to another |

1. **Give the proper form to the verbs in brackets, translate it:**
2. The circuit (be) alive, please do not touch it!
3. There (be) no insulator in the circuit, so the resistance will be low.
4. There (be) rust on the terminals. Brush it!
5. How can you find a magnetic field? It (magnet) the iron-made stuff.
6. There (be) always breakers in the circuit for the voltage fluctuations
7. We (use) transformers for power conversion: from AC to DC and vice versa.
8. The capacitor (be) used to keep some amount of electricity just in case of power fluctuation