


UNIT 2. ELECTRIC CIRCUIT

2.1. Vocabulary

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

1. a closed loop	a. предохранительное устройство
2. negative terminal	b. электрическая лампочка
3. the amount of electricity	с. гибкая нить
4. a safety device	d. источник питания
5. a light bulb 	e. одинаковое расстояние
6. power source	f. замкнутая цепь
7. a complete circuit	g. количество электричества
8. the same distance	h. отрицательный вывод
9. flexible thread	i. замкнутый контур

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

closed loop, amount of electricity, power source, light bulb, safety device, flexible thread, negative terminal, complete circuit, same distance

The battery is connected to create a _____(1) for the circuit.

We need a _____(2) like a battery to light up the bulb.

Always connect the wire to the _____(3) of the battery.

The _____(4) brightened up as soon as it was connected.

Make sure there is a _____(5) for the electricity to flow.

A _____(6) like a fuse can prevent electrical accidents.

Measure the _____(7) used by the circuit.

The light bulbs are placed at the _____(8) from the battery.

Use a _____(9) to connect different components in the circuit.

2.2. Word Formation

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

1. He _____ (switch) the lights off before leaving the room.
2. The taxi _____ (drive) was very friendly.
3. They bought a new _____ (convert) for their electronic device.
4. The _____ (consume) market is growing rapidly.
5. This car is a _____ (convert) model that can be used as both a coupe and a convertible.
6. These goods are _____ (consume) and need to be replaced regularly.
7. The _____ (switch) of channels was done seamlessly.

2.3. Reading

Ex. 1. Read the text.

An electric circuit is a path in which electrons from a voltage or current source flow. The components in a circuit are connected by wires. These components might include resistors, capacitors, batteries, and switches. When the circuit is closed, the electric current flows through the wires, powering devices like lights, fans, and computers.

The basic elements of an electric circuit include a power source, conductors, a load, and sometimes a switch. The power source, like a battery, provides the necessary voltage. Conductors, usually made of copper wire, allow current to flow easily. The load is the device or appliance that uses the electricity. A switch can control the flow by opening or closing the circuit.

Resistance in the circuit impedes the flow of the current. Ohm's Law describes this relationship: $V = IR$, where V is voltage, I is current, and R is resistance. Understanding these fundamentals is critical for troubleshooting and designing circuits.

Circuit diagrams use symbols to represent each component. For example, a straight line represents a wire, and a zigzag line represents a resistor. Learning to read these diagrams is essential for anyone studying electronics.

Safety is important when working with electric circuits. Following proper guidelines can prevent accidents and ensure the circuit functions correctly.

Ex. 2. Answer the questions.

1. What is an electric circuit?
2. What are the components that can be found in a circuit?
3. What are the basic elements of an electric circuit?

4. How does resistance affect the flow of current in a circuit?
5. What does Ohm's Law describe?
6. Why is it important to understand circuit diagrams?
7. Why is safety important when working with electric circuits?

2.4. Communication

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

1. Electricity/flows/wires
2. Switch/light/on
3. Battery/provides/power
4. Bulb/lights/connected
5. Wires/connecting/see
6. Components/working/properly
7. Electricity/feel/flowing
8. Circuit/complete/connected
9. Light/shine/brightly
10. Learned/about/electric