

What Do Electricians Do? Part I

Vocabulary

Ex. 1. Match the words with their definitions.

1. conductivity	a. to make something easy to understand by avoiding unnecessary details or complexity.
2. object	b. the ability of a material to allow electricity or heat to pass through it easily.
3. analysis	c. the process of examining something carefully to understand it better or find important information.
4. a closed loop	d. a tool or machine that uses electricity to perform a specific function, like a phone or computer.
5. orbit	e. the overall ability of a circuit to store energy in a magnetic field when an electric current flows through it.
6. total inductance	f. anything that you can see or touch, which has a specific shape or form.
7. keep it simple	g. a small electronic component that can amplify or switch electrical signals in circuits.
8. electrochemical	h. a complete path where something can travel around without any breaks or interruptions.
9. transistor	i. a large amount of electrical energy that can be dangerous and is often used in power lines.
10. a point-contact transistor	j. a type of electronic switch that controls electrical signals using two metal contacts touching a semiconductor material.
11. electronic device	k. relating to the chemical changes that happen when electricity passes through a substance.
12. high voltage	l. the curved path that an object takes as it moves around another object in space, like a planet around

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

flexible thread , diversity, polarity, vector, on and off , junction transistor, mobile, to insulate properly , on the same page, primary, magnetic field (2)

The _____(1)around the wire can influence nearby electronic devices in unexpected ways.

A _____(2)is useful for connecting different parts of a circuit without breaking.

The _____(3) voltage must be measured accurately to ensure the safety of the electrical system.

It is important _____(4)to prevent any accidental electric shocks during maintenance.

In physics, a _____(5) has both magnitude and direction, which is essential for understanding electricity.

An inductible coil creates a _____(6)when an alternating current flows through it.

Before starting the project, we all need to be _____(7) about the electrical requirements.

I turned the light switch _____(8)several times to see if it would work again.

A _____(9) can amplify electrical signals in various electronic devices we use daily.

A _____(10) phone uses a battery that allows it to operate wirelessly for long periods.

Understanding the _____(11) of the battery is crucial for connecting it correctly to the circuit.

The _____(12) of electrical components in a circuit helps to achieve different functions efficiently.

Reading

Ex. 1. Read the text.

An electrician's profession is both intricate and indispensable in modern life. The equipment they wield is vital for ensuring functionality and safety in electrical systems. First and foremost, the multimeter stands out. This versatile device measures voltage, current, and resistance, providing essential diagnostics and troubleshooting assistance. Equally important is the wire stripper, designed for efficiently removing the insulation from electrical wires without damaging the underlying copper.

Another critical tool is the voltage tester, which ensures that circuits are safely de-energized before work commences, preventing potential electrical mishaps. Pliers, too, are indispensable, with needle-nose and

lineman's pliers being particularly useful for gripping, cutting, and manipulating wires in tight spaces.

Electricians also depend heavily on their power drills, which streamline the process of installing fixtures and fastening elements. For accuracy, the tape measure and level are essential, ensuring installations are precise and reliable. Necessities such as insulated gloves and safety goggles provide the crucial protective barrier against electrical shocks and flying debris.

Lastly, conduit benders are essential for shaping and fitting electrical pipes, making sure that wires are correctly and safely routed. Every piece of this equipment, when used skillfully, allows electricians to maintain the integrity and safety of both residential and commercial electrical systems.

Ex. 2. Answer the questions.

1. What is the purpose of a multimeter for an electrician?
2. How does a wire stripper help electricians in their work?
3. Why is a voltage tester considered a critical tool for electricians?
4. How do pliers assist electricians in handling electrical wires?
5. Why are power drills important tools for electricians?
6. What role do insulated gloves and safety goggles play in an electrician's work?
7. Why are conduit benders essential for electricians working with electrical pipes?