What Do Electricians Do? Part II

Vocabulary

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

1. mobile	a. an invisible area around a magnet where magnetic forces can be felt.
2. vector	b. the presence of different types or varieties within a group or area.
3. junction transistor	c. the most important or first in order among other things.
4. flexible thread	d. a thin, bendable string or material that can be easily shaped or twisted.
5. on and off	e. a type of electronic device made from semiconductor materials that controls current flow.
6. diversity	f. a quantity that has both size and direction, commonly used in physics and mathematics.
7. voltage	g. sharing the same understanding or agreement about a situation or topic.
8. magnetic field	h. a phrase describing something that is alternately activated and deactivated.
9. on the same page	i. the measure of electric potential difference between two points in a circuit.
10. primary	j. the quality of having two opposite sides or directions, often related to electrical charges.
11. polarity	k. able to move freely or easily from one place to another.
12. to insulate properly	l. to cover or protect something so that it does not lose heat or electricity.

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

orbit, total inductance, Conductivity, object, A point-contact transistor, a closed loop, analysis, transistor, voltage, electronic device, Electrochemical, keep it simple

_____(1) is an important property that determines how well materials can conduct electricity.

In physics, the _____(2) we study often includes wires and circuit components.

The _____(3) of the circuit can help find out where the electricity is flowing.

To make the light bulb work, we need to create _____(4) with the wire.

The satellite is in _____(5) around the Earth, collecting data about our planet.

Understanding _____(6) helps engineers design better electrical systems for homes.

When explaining electricity to kids, it's best to _____(7) and clear.

_____(8) processes are used in batteries to generate and store electrical energy.

A _____(9) controls the flow of electricity and is vital in many electronic devices.

_____(10) can amplify weak electrical signals in a circuit effectively.

An _____(11) like a smartphone requires various components to function properly.

Working with high _____(12) requires careful safety measures to prevent accidents.

Reading

Ex. 1. *Read the text.*

Working as an electrician requires not just skill but also a thorough understanding of the safety precautions necessary to avoid accidents. One of the primary measures is to always ensure that the power supply is turned off before beginning any electrical work. This can't be stressed enough; even the slightest oversight could lead to catastrophic injuries or fatalities.

Equally important is wearing the appropriate personal protective equipment (PPE). This includes insulated gloves, safety goggles, and flame-resistant clothing. These items act as a barrier against electrical shocks and burns. Regularly inspecting your tools for any signs of wear and tear is another critical step. Faulty or damaged tools can compromise safety, leading to unnecessary risks.

Additionally, using voltage testers to verify that circuits are de-energized before working on them is a best practice. Following proper lockout/tagout procedures ensures that machinery or electrical systems aren't accidentally switched back on while maintenance is in progress. Furthermore, understanding and adhering to local electrical codes and standards can't be overlooked. These regulations are in place to minimize hazards and ensure a safe working environment.

Lastly, ongoing education and training play a significant role. Keeping up with the latest advancements and safety protocols ensures that electricians are well-equipped to handle the complexities of modern electrical systems safely and efficiently.

Ex. 2. *Answer the questions.*

1. Why is it crucial to always turn off the power supply before starting any electrical work?

2. What personal protective equipment (PPE) should electricians wear to protect themselves from electrical shocks and burns?

3. Why is inspecting tools for wear and tear important for safety?

4. How can voltage testers help ensure safety when working on circuits?

5. What is the purpose of lockout/tagout procedures in electrical work?

6. Why is it essential for electricians to understand and follow local electrical codes and standards?

7. How does ongoing education and training benefit electricians in their work?