

## UNIT 3 – READING - TUTOR'S HANDOUT – ĐIỆN TỬ 4

Exercise 1: Read the instructions for fixing underground wires. Then choose the correct answers.

### DO-IT-YOURSELF

#### FIXING UNDERGROUND WIRES

Fixing underground wires sounds difficult. But it's actually simple. You just need a set of tools to splice some wires.

To begin, switch off the electricity. Accidental shocks are always a risk when working with electricity. Next, use a wire tester to test the electricity to make sure it is off. Push a button on the same circuit. If it is safe, dig into the ground. You can use a flashlight to inspect the wires, and find the damaged part. Then cut it off by a pair of diagonal cutters. Next, strip the insulation off the wires by a utility knife. Use a pair of long nose pliers to twist the ends of the wires together. Then, pull on them to make sure they are joined. If they are, bind the ends together with electrical tape. After that, you will need a pair of wire strippers to install waterproof insulation plastic covering on the wires. Finally, connect the electricity.

#### 1. What are the instructions mostly about?

- A. why it is important to replace wires
- B. how to fix a damaged wire
- C. what insulation is made out of
- D. how to inspect an electric circuit

#### 2. Why should the electricity be switched off?

- A. to avoid getting shocked by the wires
- B. to make sure the wires aren't damaged
- C. to make it easier to find the wires
- D. to check that the wires are connected

#### 3. What can we use to remove the covering off the wires?

- A. Flashlight
- B. Diagonal cutters
- C. Utility knife
- D. Long nose pliers

#### 4. What can we use to bind the wires together?

- A. Long nose pliers
- B. Electrical tape
- C. Wire strippers
- D. Utility knife

## 5. What is the last step in the instructions?

- A. strip the insulation from the wires
- B. inspect the underground wires
- C. install waterproof insulation
- D. turn on the electricity again

## Exercise 2: Read the article.

### Recommended Pliers List for the Apprentice Electrician

(Dan Harmon)

While someone just becoming an electrician most likely has a limited budget, the set of hand tools is not the place to cut cost by buying cheap tools. Cheap tools will not last and are more difficult to use. Make sure that high-quality tools fill the new electrician's tool bag.

The same basic tool may come in many different brands with many different prices, so I will recommend brands as well as the actual tool where applicable. Klein makes high-quality electrician tools, as do Knipex, Ideal and Greenlee.

Below I'm going to discuss some very specific recommendations of pliers - the primary electrician's tools.

#### Needle-Nose Pliers

A good set of needle-nose pliers is indispensable for the electricians. Klein and Knipex both make a very good set, with built-in wire cutters. Needlenose pliers for the electricians should always have the wire-cutter option.

#### Lineman's Pliers

A good heavy set of lineman's pliers will often be needed. Again, Klein makes a very good set with an optional fish-tape-pulling arrangement on the side - a very handy option for the electricians.

## Side-Cutting Pliers

Side-cutting pliers are common to every electrician's tool set. These are used to not only cut wires, but nails, cables, and other items. Make sure that the jaws are hardened for such use, not merely intended for cutting copper or aluminum wires. Ideal makes two different sets; one with red handles and one with blue handles and hardened jaws. Knipex also makes a good set of side-cutting pliers. These pliers should be in the 8-inch - 10-inch length.

## Wire Strippers

Although not truly pliers, a pair of wire strippers is a necessary item in the electrician's tool belt. Wire strippers are available for Romex wires, but far more common are simple strippers for smaller solid wires. Recommended are either Ideal or Greenlee strippers; Ideal is usually a little cheaper, though Greenlee is more comfortable to use.

### 1. Answer the question: "What is the author's purpose of writing this article?"

- A. Advising the electricians to buy expensive electrical tools
- B. Making an advertisement for some famous tool brands
- C. Suggesting some specific types and brands of pliers
- D. Emphasizing the importance of pliers to the electricians

### 2. Complete the summary below with NO MORE THAN THREE WORDS.

Even though you are a new electrician who hasn't got much money, you should not fill your \_\_\_\_\_(1) with cheap low-quality tools. Dan Harmon discusses about one of the basic \_\_\_\_\_(2) - pliers and recommends some specific types.

According to Dan, needle-nose pliers must have the \_\_\_\_\_(3), and Klein and Knipex both make a very good set including this part. Klein also produces a good

set of \_\_\_\_\_ (4), which has a fish-tape-pulling arrangement on the side. Electricians often use side-cutting pliers to cut wires, nails, cables, so the jaws must be \_\_\_\_\_ (5). Ideal provides two different sets with red and blue handles. The \_\_\_\_\_ (6) of these pliers should be from 8 to 10 inches. Wire strippers are necessary to the electricians. Apart from the wire strippers for Romex wires, there are also simple ones, such as Ideal or Greenlee strippers, to work on \_\_\_\_\_ (7).