

Read what the main measuring devices are and what they are used for:

|                                     |                                                                                                                                    |
|-------------------------------------|------------------------------------------------------------------------------------------------------------------------------------|
| <b>Ammeter</b>                      | An instrument for measuring an electric current in amperes.                                                                        |
| <b>Clamp meter</b>                  | An instrument with two jaws which open to clamp around an electrical conductor to measure its properties without physical contact. |
| <b>Oscilloscope</b>                 | An instrument that shows the change of an electrical signal during a certain time on the screen of a cathode-ray tube.             |
| <b>Thermographic camera</b>         | An infrared camera.                                                                                                                |
| <b>Wattmeter</b>                    | A meter for measuring electric power in watts.                                                                                     |
| <b>Multimeter</b>                   | An instrument that combines several measurement functions in one unit: usually voltage, current and resistance.                    |
| <b>Non-contact voltage detector</b> | Amplified electronic testers for detecting the changing electric field around ac energized objects.                                |
| <b>Voltmeter</b>                    | An instrument for measuring potential difference.                                                                                  |

### REMEMBER THAT

Apart from good tools, electricians also need personal protective gear:

- Gloves (rubber insulating)
- Rubber soled shoes
- Hardhat or helmet
- Safety glasses with a side shield



4. Match the tools to their uses. Then write sentences.

screwdriver  
torpedo level  
pliers  
wire strippers  
fish tape  
voltage detector  
power drill  
tape measure

is/are used for

...bending, twisting, cutting and pulling wires.

...getting the plastic coating off wires.

...turning screws.

...measuring heights for switches and outlets.

...checking if there is voltage or current flow.

...routing new wiring through walls and conduits.

...indicating if an object is level.

...drilling into all kinds of materials.

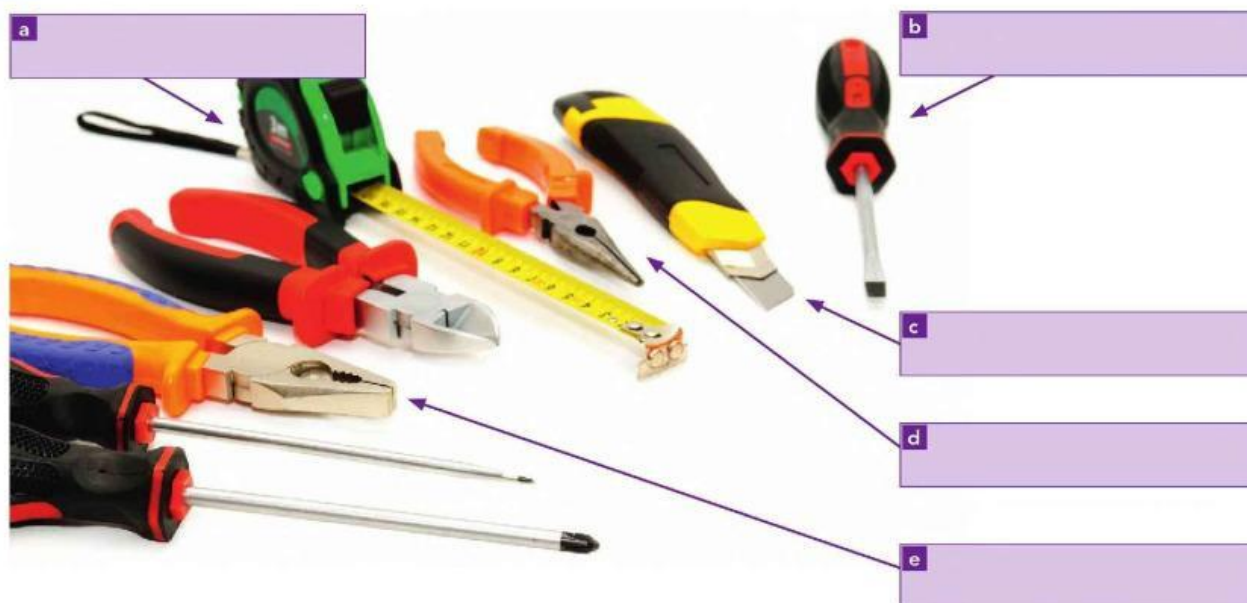
a) A screwdriver is used for turning screws.

- b) \_\_\_\_\_
- c) \_\_\_\_\_
- d) \_\_\_\_\_
- e) \_\_\_\_\_
- f) \_\_\_\_\_
- g) \_\_\_\_\_
- h) \_\_\_\_\_

5. Complete the sentences with the right words. The first letter is given.

- Electricians use **t**esting or diagnostic tools to make sure they correctly identify what the problem with an appliance is.
- You need a **s**\_\_\_\_\_ to fasten screws.
- A **m**\_\_\_\_\_ tests electrical circuits.
- To peel cables you need a **w**\_\_\_\_\_ **s**\_\_\_\_\_.
- With **f**\_\_\_\_\_ **t**\_\_\_\_\_ you can route new wiring through walls.
- There are several kinds of **p**\_\_\_\_\_. Needle nose and crimping are the most useful for me.
- A spanner is called **w**\_\_\_\_\_ in American English.
- I need a **m**\_\_\_\_\_ **t**\_\_\_\_\_ to measure this wall.

6. Can you label these tools?



## VOCABULARY TIP

### BRITISH AND AMERICAN ENGLISH

As you can see, sometimes vocabulary about tools is **different** in British and American English. For example, a **spanner** in British English is a **wrench** in American English.

| British English    | American English       |
|--------------------|------------------------|
| spanner            | wrench                 |
| adjustable spanner | crescent/monkey wrench |
| overalls           | coveralls              |

Let's Switch On!