UNIT 5: Describing Technical Devices and Processes

LISTENING 🎧

1. Mark the following statements as *True* or *False*.

A) Optical microscopes use light to help you see structures that can't be seen by the human eye.

B) In 1595, Robert Hooke, with the help of his father Hans, produced the first compound microscope.

C) A single magnifying lens produces an upright image that is enlarged two to five times.

D) In optical microscopes, the lens nearest the eye is called the ocular lens.

E) When microscopes were first invented, sunlight was the only available source of illumination.

F) Transmitted light is supplied from below the object.

2. Complete the following sentences

A) Over the last 4 centuries many improvements have been _____ to light microscopes.

B) In all optical microscopes enlargement of the image of an object is _____ by two lenses.

C) The one nearest the object is _____ the objective lens.

D) Each objective and ocular lens is usually _____ of several lenses

E) Various devices such as mirrors or lenses were _____ to direct the light where it was _____

F) If a lamp is on a separate stand, it can be _____ closer to or away from an object…

G) Transmitted light is _____ from below the object

MicroScanner2 Cabe Verifier

READING 📖

1. Read the excerpt from the Manual of use of MicroScanner2

The MicroScanner2 Cable Verifier is a handheld test instrument which is used by network technicians to verify and troubleshoot twisted pair and coaxial cabling.

The device is designed to perform multiple tests automatically, allowing common wiring faults to be identified quickly. Cable length is measured, and faults such as opens, shorts and split pairs are detected during the test process.

In addition, active Ethernet ports can be detected, and the port speed is displayed on the screen. Power over Ethernet (PoE) is also detected when it is present, which helps technicians identify powered network connections safely.

The tester is powered by two AA batteries and is commonly used during installation, maintenance and troubleshooting tasks.

A) What is the main purpose of the MicroScanner2?

a) To repair damaged network devices

b) To test and analyse network cabling

c) To configure Ethernet ports

B) Why is the MicroScanner2 useful during network installations?

C) What types of problems are detected during the process?

D) When is PoE detected, according to the text?

USE OF ENGLISH 🧩

2. Find and underline examples of the passive voice in the text.

3. Match the sentences with their function

1) The tester is designed to perform multiple test.	**a)** Description of purpose
2) Ethernet ports can be detected automatically.	**b)** Description of capability
3) The device is powered by two AA batteries.	**c)** Description of power source
4) Faults are identified during the test process.	**d)** Description of process

4. Rewrite the sentences using the passive.

A) Technicians use the tester to identify wiring faults.

_____

B) The device automatically measures the cable length.

_____

C) The tester displays the port speed on the screen.

_____

D) The system detects PoE when it is present.

_____

E) Various devices such as mirrors or lenses direct the light where it is needed.

_____

F) The system supplies transmitted light from below the object.

_____

5. Complete the sentences using your own words.

- The MicroScanner2 is designed to…
- During the test, cable faults are…
- When PoE is present, it can be…

WRITING

Technical manuals and quick guides often use the passive voice because the focus is on the device and the process, not on the user. Use the quick guide to explain how the MicroScanner2 is used.