Lesson Plan (for educators)

Cyber Security

Lesson plan - 20 minutes

AIM:

Setting up a lab environment for cybersecurity.

ACTIVITY:

Demonstration of a step-by-step walkthrough to set up a lab to practice cyber skills.

Suitable for

Students undertaking Level 3 or equivalent qualification.

Resources needed

1. Video & LMS access (link)
2. Task brief
3. Marking criteria/scheme
4. Infrastructure list
5. H&S disclaimer
6. Skill fact sheet (WSUK)
7. End of assessment quiz

Skills

Self-management.

Learning outcomes

After completing this activity learners will be able to:

- identify software tools to set up a lab for cybersecurity
- plan, prepare and execute tests of systems
- design, develop, test, and evaluate information system security throughout the systems development life cycle.

Delivery modes

1. Students can go through the online materials independently – either at your facilities (subject to permission), if you have access to enough computers, or can go through the materials at home in their own time.

2. You can download and print all relevant resources, access the video demo, and deliver the activity in the classroom.

Section	Timings	Key teaching points
Lesson Plan	2 minutes	Introduce the topic and its relevance.
Video OR photo demonstration	10 minutes	Get students thinking about how to set up a small working environment to practise. What are the requirements for both software and hardware?
Task Brief (below)	15 minutes	Demonstration of setting up a lab for cybersecurity. Watch video and reflect: • what is Windows Subsystem for Linux (WSL)? • what is Kali? • what is the Metasploit framework? • demonstration of lab setup.ack using a prepared routine.
Infrastructure and H&S checklist	2 minutes	The contents are solely for educational purposes only. Please ask for written permission to do any activities and only carry them out on permitted targets. Please check the task brief for detailed information on desk and chair position and body posture and other requirements when working with electrical equipment. Windows Subsystem for Linux Installation Guide for Windows 10: https://docs.microsoft.com/en-us/windows/wsl/install-win10
Task Completion	20 minutes	Get students to complete the tasks by following the instructions on the video demonstration.
Marking Criteria	2 minutes	Please refer to the marking criteria included in this module. Do not forget to feedback to WorldSkills UK.

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