



Sample assessment task	
Year level	Year 7
Learning area	Technologies
Subject	Digital Technologies
Title of task	Networking practical
Task guidelines	
Description of task	In small groups, students label and explain components of physical networking devices and explain how they interrelate.
Type of assessment	Summative
Purpose of assessment	<ul style="list-style-type: none">To assess students' understanding of the purpose of a network device and transmission media and their impact on network activitiesTo assess students' understanding of the difference between wired and wireless network connections
Assessment strategy	Observation with checklist
Evidence to be collected	<ul style="list-style-type: none">Observation checklistPhotographs (teacher's choice)
Suggested time	15 minutes during lesson
Content description	
Content from the Western Australian Curriculum	<p>Digital systems Different types of networks, including wired, wireless and mobile networks Hardware components of a network</p> <p>Producing and implementing Safely make solutions using a range of components, equipment and techniques</p> <p>Collaborating and managing Work independently, and collaboratively when required, to plan, develop and communicate ideas and information when using management processes</p>
Task preparation	
Prior learning	Students will be required to know the differences between wired and wireless connections and have an understanding of the networking devices used.
Assessment differentiation	Teachers should differentiate their teaching and assessment to meet the specific learning needs of their students, based on their level of readiness to learn and their need to be challenged. Where appropriate, teachers may either scaffold or extend the scope of the assessment tasks.
Assessment conditions	Students will be allocated class time to plan, prepare and produce their task. This task may be assigned as homework if class time is limited.
Resources	<ul style="list-style-type: none">Assessment checklistVarious network components, such as router, Integrated Service Router (ISR), modem, UTP cables, switch, Network Interface Cards (NIC), etc. (these will vary based on availability, adapt checklist as needed)Labels printed for the selected network components

Instructions for teacher

Student groups should be no larger than three students.

Create the labels for the devices you will need before the lesson. These can vary based on availability of devices. Make sure you have the correct cables to connect the devices together. The connection is not needed, just the physical layout in order to show understanding. Broken or discarded devices can be used.

Reinforce students' prior knowledge of wireless and wired connections before commencing.

Prior learning needs to be delivered on network devices, such as routers (wired and wireless), switches, Network Interface Cards (NIC), servers, modems, Integrated Service Routers, etc. (including firewalls for physical security).

Below is a sample of the observation checklist that can be modified to suit the needs of your students and availability of network components.

Instructions for students

Familiarise yourself with network components and what they are used for.

Wired and wireless connections are all around us. Why do we use wired or wireless connections in different situations?

Familiarise yourself with the observation checklist prior to completing the task.

Work together in groups to get the best possible outcome.

Year 7 Observation checklist for physical network components

This task is designed to be a practical group task, including oral questioning of varying complexity to match student ability. Groups should be either two or three members in size. Members of the group can be awarded different scores if required.

Student names: _____

Part A

Label and explain networking devices	Labels networking devices correctly	Correctly identifies network component with a brief description	Correctly identifies and describes the network component	Correctly identifies and explains the function of the network component
Integrated Service Router (ISR)	1 mark	2 marks	3 marks	4 marks
Router	1 mark	2 marks	3 marks	4 marks
Modem	1 mark	2 marks	3 marks	4 marks
Switch	1 mark	2 marks	3 marks	4 marks
Copper cable (UTP)	1 mark	2 marks	3 marks	4 marks
(Other cable)	1 mark	2 marks	3 marks	4 marks
Network Interface Cards (NIC)	1 mark	2 marks	3 marks	4 marks

Part B

Connecting devices	Connects all of the devices correctly	Explains position of the devices and purpose for this location in relation to other devices
Devices that need to be connected: ISR to cable, correct port, power to ISR, cable to Laptop, etc.	1–7 Marks (1 mark for each correct connection)	1–7 marks (1 mark for each correct explanation)

Part C

Connections	Explains one positive and one negative of connections	Explains two positives and two negatives of connections	Explains three positives and three negatives of connections
Wireless connections	1–2 marks	3–4 marks	5–6 marks
Wired connections	1–2 marks	3–4 marks	5–6 marks

Part A: _____/28 marks

Comments:

Part B: _____/14 marks

What was done well?

Part C: _____/12 marks

What needs improvement?

Teamwork: _____/4 marks

How can I improve?

Total: _____/58 marks

Sample marking key	
Part A	
Description	Marks
Label and explain networking devices (4 marks per device for 7 devices)	
Correctly identifies and explains the network component.	4
Correctly identifies and describes the network component.	3
Correctly identifies the network component with a brief description.	2
Labels and identifies the correct device.	1
Subtotal	28
Part B	
Description	Marks
Connecting devices	
Connects all the devices correctly (1 mark per correct answer).	1–7
Explains the location of the device and its relevance on the network connection.	1–7
Subtotal	14
Part C	
Description	Marks
Wireless connections	
Explains three positives and three negatives of wireless connections.	5–6
Explains two positives and two negatives of wireless connections.	3–4
Explains one positive and one negative of wireless connections.	1–2
Subtotal	6
Description	Marks
Wired connections	
Explains three positives and three negatives of wired connections.	5–6
Explains two positives and two negatives of wired connections.	3–4
Explains one positive and one negative of wired connections.	1–2
Subtotal	6
Teamwork	
Description	Marks
Collaborative cohesiveness	
Consistently works collaboratively to develop and effectively communicate detailed and logical ideas and information, using management processes.	4
Works collaboratively to develop and effectively communicate logical ideas and information, using management processes.	3
Works collaboratively to develop and communicate ideas and information, using management processes.	2
Sometimes works collaboratively to develop and communicate ideas and information, using management processes.	1
Subtotal	4
Total	58