

Kit's Computing Guide: How Networks Connect the World

Learning objective: To explain how networks function and describe the roles of different hardware components in a network system.

Use the writing frame below to help Kit the fox explain how computers communicate. Use the word bank to help you link your ideas together clearly.

A computer network is a group of two or more computer systems linked together to share information and resources.

Word bank: data packets · router · server · local area network (LAN) · wide area network (WAN) · transmits · consequently · furthermore · in addition · however

1. What is the difference between a Local Area Network (LAN) and a Wide Area Network (WAN)? Start your explanation by saying: A LAN is used for... (2 marks)

2. How does a router help manage the flow of information? Start your explanation by saying: The router acts like a traffic controller because... (2 marks)

3. Why do we use servers in a network? Start your explanation by saying: A server is an important part of a network because it... (2 marks)

4. What happens to data when it is sent across a network? Start your explanation by saying: When data is sent, it is broken down into small pieces called... (2 marks)

5. Why is it important for networks to have security protocols? Start your explanation by saying: Security is essential for networks to ensure that... (2 marks)

Extension challenge: Imagine you are designing a network for a school. Draw a diagram showing where the server, the router, and the computers would be placed, and write a short paragraph explaining why you chose that layout.