

Networking with Kit the Fox

Learning objective: To understand the purpose of computer networks and how data is transmitted between devices.

Read each question carefully and use your knowledge of computing to provide clear, detailed answers. Refer to the word bank if you need help with technical terms.

Word bank: Server · Client · Internet · Router · Data packets · Local Area Network (LAN) · Wide Area Network (WAN)

1. Kit the Fox is setting up a computer network in his den. Explain the difference between a Local Area Network (LAN) and a Wide Area Network (WAN). (2 marks)

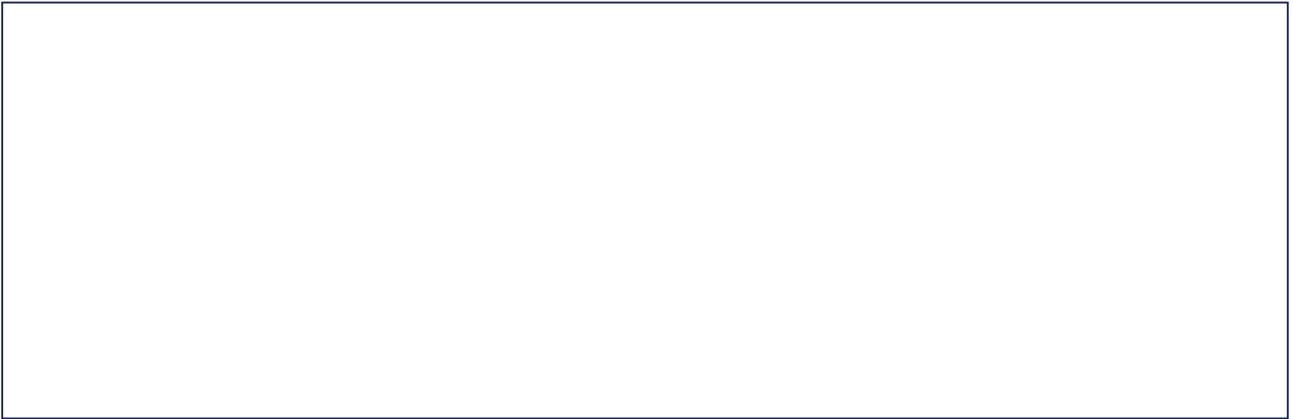
2. When we send a message or an image across the internet, it is broken down into smaller pieces. What are these pieces called, and why is it important that they are reassembled correctly? (2 marks)

3. What is the primary role of a router in a home network? Give one example of what might happen if the router was turned off. (2 marks)

4. Describe the relationship between a 'client' device (like a tablet) and a 'server' when you are looking up information for a project. (2 marks)

5. If a school has 30 computers in one room connected together, why would it be more efficient to connect them to a network rather than having them work in isolation? (2 marks)

Draw: Draw a diagram of a simple network. Include a router in the centre and show how at least three different devices (like a laptop, a printer, and a tablet) connect to it.



Extension challenge: Imagine you are explaining the internet to someone who has never heard of it. Write a short paragraph describing how a message travels from your computer to a friend's computer on the other side of the world.