The Invisible Web: Understanding Computer Networks

Learning objective: I can explain how computers connect to form networks and the purpose of the internet.

About 15 minutes. Grown-up tip: Ask your child to imagine the internet as a giant post office that sends tiny letters to computers all over the world.

Use the planning grid and structure below to write an explanation of how networks function. Remember to use technical vocabulary and clear, logical steps. Example: When I send a message from my laptop, the data travels through wires or Wi-Fi to a router, which directs it to the correct destination.

In our digital world, computers are rarely isolated; instead, they are linked together in complex networks that allow us to share information instantly.

Word bank: data packets · router · server · transmission · wireless · infrastructure · consequently · furthermore · in contrast

1. Paragraph 1: Introduction. Define what a network is. What is the primary purpose of connecting multiple devices together? (2 marks)

2. Paragraph 2: Hardware. Describe the role of a router. Why is it considered the 'traffic controller' of a home or school network? (2 marks)

3. Paragraph 3: Data Transmission. Explain how information travels across a network. Mention the difference between wired connections and Wi-Fi. (2 marks)

4. Paragraph 4: The Internet. Distinguish between a local network (LAN) and the global internet. How do they work together? (2 marks)

5. Paragraph 5: Conclusion. Summarise why networks are essential to modern life. Give one example of a task you could not do without a network. (2 marks)

Draw: Draw a simple diagram showing a laptop, a tablet, and a printer all connected to a central router.

Extension challenge: Research and write a short paragraph explaining what a 'firewall' is and why it is important for network security.

I did it! **Name:** _____ **Date:** _____

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