

Kit's Connection Quest: A Network Quiz

Learning objective: To identify, describe, and explain the function of hardware and software components within a computer network.

Help Kit the fox solve the mysteries of how computers talk to each other! Read each question carefully and select or write the best answer.

Answer Key: 1. B, 2. True, 3. Router, 4. C, 5. True, 6. Switch, 7. A, 8. False, 9. Server, 10. Packet. Greater Depth Guidance: Encourage students to think about the physical infrastructure (cables) versus wireless transmission.

Word bank: Server · Router · Network · Switch · Packet · Internet · Wi-Fi

- 1. 1. What do we call a collection of two or more computers connected together to share information? A) A cluster B) A network* C) A web D) A hub (1 mark)**

- 2. 2. True or False: A router is a device that sends data between different networks, such as connecting your home to the wider internet. (1 mark)**

- 3. 3. Which piece of hardware acts like a traffic controller, directing data to the specific device that requested it? (1 word) (1 mark)**

- 4. 4. What is the main purpose of a server? A) To store files for other computers to access* B) To play video games C) To print documents D) To power the computer (1 mark)**

- 5. 5. True or False: Wi-Fi uses radio waves to transmit data wirelessly between devices. (1 mark)**

- 6. 6. If a school has many computers in one room, what device is used to connect them all together in a local area network (LAN)? (1 word) (1 mark)**

- 7. 7. Data is broken down into small chunks before it is sent across a network. What are these chunks called? A) Packets* B) Parcels C) Pixels D) Bits (1 mark)**

- 8. 8. True or False: A network can only be made of computers that are in the same building. (1 mark)**

9. 9. Which component provides centralised resources or services, such as hosting a school website? (1 word) (1 mark)

10. 10. What is the process of data being sent across a network called? A) Downloading B) Uploading C) Transmission* D) Broadcasting (1 mark)

Draw: Draw a diagram of a simple network in a classroom. Include a router, a server, and three computers connected to the switch. Label the cables and the wireless connection.



Extension challenge: 1. Explain why a network is more efficient than using individual USB sticks to share files. 2. Compare and contrast a wired connection (Ethernet) with a wireless connection (Wi-Fi). 3. Justify your answer: Is it better for a school to have a central server? Why? 4. What might happen if a switch in a network stops working? 5. If you were designing a network for a library, which hardware would be most critical and why? 6. Research and describe the difference between a LAN (Local Area Network) and a WAN (Wide Area Network).