

Cybersecurity Guardians: Protecting Digital Identities

Learning objective: To understand the importance of secure passwords, recognise phishing attempts, and identify strategies to protect personal data online.

Read each question carefully and apply your knowledge of digital safety. Consider how Kit the fox would use logical thinking to solve these security puzzles.

In the digital world, your personal data is like a hidden treasure. Cybersecurity is the practice of protecting systems, networks, and programmes from digital attacks. Just as you would lock your front door to keep your home safe, you must use digital 'locks'—like strong passwords and two-step verification—to keep your online identity secure from those who might try to steal information through deception or malicious software.

Word bank: Phishing · Encryption · Authentication · Cybersecurity · Algorithm · Malware · Personal Data · Password Strength

1. Explain why using the same password for every website you visit creates a significant security vulnerability. What might happen if one site suffers a data breach? (3 marks)

2. Compare and contrast a 'weak' password (e.g., 'Monkey123') with a 'strong' password. Suggest two specific methods to make a password more difficult for a computer programme to guess. (2 marks)

3. You receive an email from an unknown sender claiming you have won a competition and requesting your home address and school name to 'claim your prize'. Justify why you should not respond to this message. (2 marks)

4. What is 'two-step verification' (or multi-factor authentication), and how does it provide an extra layer of protection for an online account? (2 marks)

5. Kit the fox is designing a new app. Explain why it is vital for Kit to include an 'encryption' feature when users send private messages to their friends. (2 marks)

6. Evaluate the risks of downloading files from websites that you do not trust. What steps should a user take to verify that a file is safe before opening it? (3 marks)

Draw: Design a 'Digital Shield' logo that represents cybersecurity. Include symbols that represent a secure connection, such as a padlock, a key, or a shield, and give it a name that signifies strength and protection.



Extension challenge: Imagine you are an expert Cybersecurity Consultant. Write a short, persuasive 'Top 5 Tips' guide for Year 3 pupils explaining how to stay safe online in a way that is easy for them to understand. Use clear, encouraging language and warn them about the dangers of sharing personal information.