Kit’s Computing Quest: Organising Information

Learning objective: To understand how databases are structured using records, fields, and queries to help organize data effectively.

Read the instructions for each question carefully. Use your knowledge of how databases work to complete the tasks.

Kit the fox is building a digital database to keep track of all the books in the BookFlik library. Each entry for a book acts as a 'record', while the specific details like 'Title', 'Author', and 'Price' are stored in 'fields'.

Word bank: Database · Record · Field · Query · Data

1. Kit wants to find all books that cost less than £5.00. What is the technical term for the search or question Kit is performing on the database? (1 mark)

2. Explain the difference between a 'field' and a 'record' in the context of Kit’s library database. (2 marks)

3. Kit has a field called 'Price'. If a book costs £4.50, £3.99, and £5.50, why is it important that these are stored as 'number' data types rather than 'text'? (2 marks)

4. Imagine you are building a database for a sports club. List three possible 'fields' you would need to track the members of the club. (3 marks)

5. If you wanted to find every member of the sports club who lives on 'High Street', would you use a sort, a filter, or a calculation? Explain your reasoning. (2 marks)

Draw: Draw a simple table representing a database for a fruit store. Include columns for 'Fruit Name', 'Price per kg', and 'Quantity in Stock'. Fill in three rows of data.

Extension challenge: Research why databases are more efficient than using a paper filing system. Write a short paragraph explaining the benefits of using a digital database for a large school library.