Organising the Village Library: Mastering Databases

Learning objective: I can understand how databases store information and how to search them using specific criteria.

About 15 minutes. Grown-up tip: Ask your child to imagine how they would organise their own bedroom items into a database using categories like 'item name', 'location', and 'last used'.

A database stores information in records. Each record has fields (categories). For example, if a library database has a record for a book, the fields might be: Title, Author, Genre, and Year Published. To find specific items, we use 'queries'.

Example: If you want to find all books in the 'Mystery' genre, your query is: Genre = 'Mystery'.

Word bank: Record · Field · Database · Query · Criteria · Sort

1. Kit the fox is helping the local library sort their collection. If he wants to find every book written by a specific person, which 'field' should he search: Title, Author, or Genre? (1 mark)

2. The library database has a field called 'Borrowed'. It contains either 'Yes' or 'No'. If you want to see which books are currently available to take home, what should your query be? (1 mark)

3. Imagine a database table with 500 records of garden birds. If you want to find birds that weigh more than 50g, explain why a 'numerical' field for 'Weight' is better than a 'text' field. Give a reason. (2 marks)

4. Kofi wants to find books about 'History' that were published after 2015. Write a logical query that he could type into the search bar to find these books. (2 marks)

5. Why might a database show different results if you search for 'Fox' compared to 'fox'? Explain the importance of precision in database searching. (2 marks)

Draw: Kit the fox sitting at a computer in a cosy village library, looking at a digital screen showing columns and rows of data.

Extension challenge: Design a database structure for your own collection of 10 items (e.g., games, trainers, or books). List at least four fields you would need to identify each item uniquely.

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

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