Mastering Databases: Organising Information

Learning objective: I can explain how databases work and how to retrieve specific information from them.

About 15 minutes. Grown-up tip: Ask your child to imagine their toy collection as a database and explain which fields they would use to categorise them.

Read the front of the flashcard to see the term or question. Try to say the answer out loud or write it down before checking the back of the card. Example: Front: What is a record? | Answer: A single complete set of related information about one item, like all the details about one specific book in a library system.

What is a database?

An organised collection of structured information or data, stored electronically in a way that allows it to be easily accessed and updated.

What is a field in a database?

A single piece of information, such as a 'Surname' or 'Date of Birth', which is stored in a specific column.

What is a record?

A complete set of fields for one specific item, such as all the information about one pupil in a school register.

What is a 'Query'?

A request made to a database to find specific information that meets certain criteria.

What does it mean to 'Filter' data?

To hide data that does not meet your chosen criteria, leaving only the information you want to see.

What does it mean to 'Sort' data?

To arrange the records in a specific order, such as alphabetical order (A-Z) or numerical order (smallest to largest).

Which is more specific: a Filter or a Query?

A Query, because it can combine multiple complex conditions to search across the entire database.

Why is it important to use consistent data entry?

To ensure that the database can be searched and sorted accurately without errors caused by typos or different formats.

If you have a list of books, what would the column headers be called?

These are called 'Fields'.

Why would a librarian use a database instead of a paper list?

It is faster to search, easier to update, and can store a much larger amount of information securely.