

Kit's Digital Ledger: Mastering Spreadsheets

Learning objective: To understand the structure of a spreadsheet, use cell references to perform calculations, and explain the benefits of using formulas for data management.

Read each question carefully. Use your knowledge of digital data structures to solve Kit the Fox's computational challenges. Show your working where appropriate.

Kit the Fox is organising the community library's inventory. He uses a spreadsheet to track the cost of new books. A cell is the intersection of a column (lettered A, B, C...) and a row (numbered 1, 2, 3...). To add the values of cells B2 and B3 together, Kit types '=B2+B3' into a cell.

Word bank: Cell · Column · Row · Formula · Cell Reference · Data · Active Cell · Sum · Value

1. Kit has a list of book prices in cells C1, C2, and C3. Write the exact formula he should type into cell C4 to calculate the total cost of all three books. (2 marks)

2. Explain why it is more efficient to use a formula rather than calculating the total in your head and typing the number into the spreadsheet. (3 marks)

3. If Kit changes the price of a book in cell C1 from £5.00 to £7.50, what happens to the total calculated in cell C4? Justify your reasoning. (3 marks)

4. Compare and contrast a 'Cell Reference' (e.g., A1) and a 'Value' (e.g., 50). When would you use one over the other in a formula? (4 marks)

5. What might happen if Kit accidentally deletes a cell that is included in a formula? Describe the likely outcome in the spreadsheet. (2 marks)

Draw: Draw a diagram of a simple spreadsheet grid. Label one column 'Price (£)', one row 'Book Title', and shade one square to show an 'Active Cell' at position B3.



Extension challenge: Imagine you are building a spreadsheet to manage the school tuck shop. Design a table layout on paper that includes columns for 'Item Name', 'Unit Price', 'Quantity Sold', and 'Total Revenue'. Write a brief proposal explaining how you would use a 'Formula' to ensure the 'Total Revenue' updates automatically whenever you change the 'Quantity Sold'.