

Kit's Digital Ledger: Mastering Spreadsheets

Learning objective: To understand the purpose of spreadsheets, identify key terminology, and explain how formulae can automate calculations.

Use this writing scaffold to explain how Kit the fox uses spreadsheets to track his collection of forest findings. Use the word bank to help structure your technical explanation.

A spreadsheet is a powerful digital tool that allows us to organise vast amounts of information into a grid of rows and columns.

Word bank: cell · row · column · formula · data · automated · calculate · consequently · furthermore · in addition to · specifically

1. What is the difference between a cell, a row, and a column, and why is this structure useful for organising data? Start by saying: 'The structure of a spreadsheet is essential because...' (3 marks)

2. Explain how a formula works in a spreadsheet. Why is it more efficient than calculating totals by hand? Start by saying: 'A formula acts as a command which allows the software to...' (3 marks)

3. Kit wants to track the price of items he buys at the market, such as acorns at £0.25 each. Describe how he could set up his spreadsheet to calculate the total cost. Start by saying: 'To calculate the total, Kit would need to input...' (3 marks)

4. Justify your answer: Why might a scientist prefer using a spreadsheet over a handwritten list when recording the growth of a plant over several weeks? (4 marks)

5. Compare and contrast: What are the risks of making a mistake in a formula compared to making a mistake in a handwritten calculation? (4 marks)

6. What might happen if Kit accidentally deleted a cell containing a key piece of data in the middle of his spreadsheet? Explain the impact. (3 marks)

Extension challenge: Design a layout for a spreadsheet that could help you manage a budget for a school trip costing £15.00 per person. List the headers you would use in your columns and write a complex formula that could calculate the total cost for 25 pupils.