Digital Detectives: Data Handling Challenge

Learning objective: I can collect, analyse, and present data to solve problems.

About 45 minutes. Grown-up tip: Encourage your child to think about how spreadsheets automatically calculate totals versus doing it by hand.

Read each question carefully. For data analysis tasks, ensure your calculations are clear. Example: To find the mean of 2, 4, and 6, add them together (12) and divide by the count (3). 12 ÷ 3 = 4.

Kit the fox is helping the school garden club organise their harvest. They have gathered information about the weight of vegetables grown in the school allotment: Carrots (1200g), Potatoes (3500g), Onions (800g), and Beetroot (500g).

Word bank: database · mean · spreadsheet · variable · record · field · chart

1. 1. Identify the 'field' and the 'record' if this data were entered into a database. Explain your choice. (2 marks)

2. 2. Using the data in the passage, calculate the mean weight of the vegetables harvested. (3 marks)

3. 3. Which type of chart or graph would be most effective to compare the weights of the four vegetable types? Give one reason for your choice. (3 marks)

4. 4. Kit wants to add a new vegetable, 'Runner Beans', which weighs 250g. How will this change the median weight of the harvest? Show your working. (4 marks)

5. 5. The school shop sells these vegetables. If a customer buys 3 bags of potatoes at £1.50 each and 2 bags of carrots at £0.80 each, what is the total cost? Show the calculation. (3 marks)

6. 6. Design a plan for a digital survey to find out which vegetable the children in Year 6 like best. In your answer, include: (a) Three questions you would ask, (b) How you would store the data, and (c) How you would ensure the data is accurate. (10 marks)

Draw: Kit the fox sitting by a wooden crate full of garden vegetables, holding a digital tablet to record data, professional and educational style.

Extension challenge: Total: /25. Challenge: If the garden club wants to predict next year's harvest, what 'variables' might affect the data? Write a short paragraph explaining why data might be different next year.

I did it! Name: _____ Date: _____

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