

Max's Mathematical Mystery: The Library Budget

Learning objective: To apply retrieval and inference skills to solve a real-world word problem set within a narrative context.

Read the scenario below carefully. Max the monkey has been tasked with organising the new school library budget. Use your comprehension skills to identify the key information and calculate the costs. For each question, explain your reasoning clearly.

Max has been given a budget of £500.00 to restock the library shelves. He decides to buy 20 new hardback books at £8.50 each and 15 sets of encyclopaedias at £12.00 per set. He also wants to purchase a new rug for the reading corner which costs £45.00. However, the shop offers a 'buy one get one half price' deal on the hardback books, which Max intends to use to save money. After his purchases, Max plans to donate the remaining money to the school art department for new paints.

Word bank: budget · expenditure · allocation · calculation · inference · total · remaining

1. Before applying the discount, what is the initial cost of the 20 hardback books? Show your calculation. (2 marks)

2. Explain how the 'buy one get one half price' deal changes the total cost of the 20 hardback books. (2 marks)

3. Calculate the total expenditure for all items (books, encyclopaedias, and the rug) after the discount is applied. (2 marks)

4. How much money will Max be able to donate to the art department? (2 marks)

5. Based on the text, why might Max be considered a careful planner for the school? (2 marks)

Draw: Draw a bird's-eye view map of the library reading corner, including the new rug and the shelves where the books will be placed.



Extension challenge: Write a short, persuasive letter from Max to the school headteacher explaining why he chose to prioritise encyclopaedias over other resources for the library.