

Max's Spooky Shop Inventory: A Year 5 Maths Challenge

Learning objective: To apply knowledge of multi-step arithmetic, decimal operations, and problem-solving within the context of money and seasonal planning.

Max the monkey is helping organise the community harvest festival stall. Use your mathematical skills to calculate the costs, manage the inventory, and solve the logic puzzles below. Show your working out clearly to ensure Max's calculations are accurate.

Word bank: expenditure · profit · decimal · remainder · estimation · multiplication · budgeting · inventory

1. Max has a budget of £50.00. He buys 12 bags of pumpkin seeds at £1.25 each and 8 decorative lanterns at £3.40 each. Calculate the total expenditure and the remaining budget. (3 marks)

2. Explain why it is important for Max to round his decimal prices to the nearest whole number when making a quick mental estimate of his total spending. (2 marks)

3. If Max sells 25 'spooky sweets' bags for £2.15 each, calculate the total revenue. If the cost price of the materials was £18.50, what is his total profit? (3 marks)

4. Compare and contrast: If Max decided to lower the price of a bag of sweets by 15p, how would this affect his total profit? Justify your answer using calculations. (4 marks)

5. Max wants to divide 144 autumn-themed stickers equally into 9 display baskets. How many stickers go into each basket? Show your division method. (2 marks)

6. What might happen if Max miscalculates his costs and spends £5.50 over his £50.00 budget? Propose a solution for how he could adjust his inventory to rectify this. (3 marks)

Extension challenge: Creative Task: Design a new item for Max's stall. Give it a name, a cost price, and a selling price. Write a short paragraph justifying why your item would be popular with customers and how you calculated the profit margin to ensure it is a successful product.