Max’s Festive Maths Challenge

Learning objective: To apply Year 5 mathematical skills including multiplication, division, money calculations, and perimeter to festive-themed problems.

Read each question carefully. Show your working out clearly, as you may gain marks for your method even if the final answer is incorrect. Ensure all money answers include the £ sign and two decimal places.

Max the monkey is helping his friends prepare for a festive gathering. He has been busy calculating the costs of decorations, measuring the area for a party space, and sharing out treats fairly among his friends.

Word bank: Product · Quotient · Perimeter · Calculate · Difference · Total

1. Max buys 12 boxes of crackers. Each box costs £3.45. What is the total cost of the crackers? (2 marks)

2. The party space is a rectangle. The length is 8 metres and the width is 5.5 metres. Calculate the perimeter of the room. (2 marks)

3. Pip the caterpillar has 144 festive bookmarks to share equally between 9 friends. How many bookmarks does each friend receive? (2 marks)

4. Zara the zebra is making bunting. She needs 15.5 metres of ribbon. She already has 6.75 metres. How much more ribbon does she need to buy? (3 marks)

5. Nova the owl is organising a stargazing event. If 4 children can sit on one bench, how many benches are needed for 62 children? Explain your reasoning. (4 marks)

6. Ellie the elephant has a budget of £50.00 for party food. She buys 4 packs of fruit at £2.60 each, 3 packs of nuts at £1.75 each, and a large box of festive biscuits for £8.99. How much change will she have left? Show your steps. (4 marks)

7. Max wants to create a new festive pattern using geometric shapes. Write a short explanation (at least 50 words) describing the shape you would choose, its properties (sides, vertices, angles), and how you would arrange it to create a symmetrical festive display. (8 marks)

Draw: Draw a symmetrical festive decoration using at least three different 2D shapes, such as triangles, squares, or hexagons.

Extension challenge: Total: /25