Max’s Busy Market Maths: Long Division Challenge

Learning objective: To solve long division problems using the formal written method (chunking or short/long division) to calculate costs and quantities for a school market.

Max the monkey is helping organise the school summer fair. He needs to divide items into equal groups or calculate how many items can be bought with a set budget. Follow the formal written method to solve these long division problems. Show your working out clearly for each calculation.

Word bank: dividend · divisor · quotient · remainder · chunking · formal written method

1. Max has 432 packets of seeds to share equally between 12 stalls. How many packets does each stall receive? (2 marks)

2. The school has a budget of £864 for new art supplies. If each set of paints costs £24, how many sets can Max buy? (2 marks)

3. A box of raffle tickets costs £16. If Max has £992, how many boxes can he purchase? Does he have any money left over? (2 marks)

4. There are 728 cupcakes to be placed into boxes. Each box holds 14 cupcakes. How many boxes are needed to hold all the cupcakes? (2 marks)

5. Explain the difference between the 'dividend' and the 'divisor' in the context of Max's seed problem (432 ÷ 12). (2 marks)

Draw: Draw a picture of Max the monkey standing behind a market stall table, with neat piles of seeds and paint sets organised into equal groups.

Extension challenge: Max finds an extra £50 in the school fund. If he decides to buy more paint sets at £24 each, how many more can he buy, and what will the final remainder be?