

Max's Market Stall: A Measurement Challenge

Learning objective: To measure, compare, add and subtract lengths, masses and volumes using standard metric units and solve money problems.

Max the monkey is opening a fruit stall! Use your mathematical skills to help him prepare his inventory. Work through each section to calculate the weight of his produce, the length of his display shelves, and the total cost of his items. Show your working clearly in the boxes provided.

Word bank: millimetres · centimetres · metres · grams · kilograms · millilitres · litres · calculate · estimate · difference · total · equivalent

1. Max has 450g of strawberries and 850g of grapes. What is the total mass of the fruit in kilograms and grams? Show how you converted the units. (3 marks)

2. A wooden shelf for the stall is 2 metres long. Max cuts a piece that is 145 centimetres long. What length of wood is left? Explain your method. (3 marks)

3. Max sells a bottle of apple juice for £2.40. If a customer buys three bottles and pays with a £10 note, calculate the change. Justify your answer. (3 marks)

4. Compare and contrast: Why is it more appropriate to measure the weight of an apple in grams rather than kilograms? What might happen if we used the wrong unit? (4 marks)

5. Max has a jug containing 2 litres of water. He pours 350ml into a watering can. How much is left in the jug? Show your calculation. (3 marks)

6. Justify this statement: 'Adding 500g and 500g is the same as adding 0.5kg and 0.5kg.' Explain the relationship between these units. (4 marks)

Extension challenge: Design a 'Budget Menu' for Max's stall. Create three different fruit baskets, assign each a price in pounds and pence, and write a word problem for a friend to solve that requires them to calculate the total cost and the change from a £20 note.