Max’s Magnificent Measurement Marathon

Learning objective: To calculate, estimate, and convert measurements of length, mass, and capacity in the context of real-world scenarios.

Help Max the monkey solve these mathematical puzzles! Read each question carefully, choose the correct unit of measurement, and show your working out for the multi-step problems.

Answer Key: 1. C (1,500g), 2. False (1.5km is 1,500m), 3. 250ml, 4. B (4,000m), 5. True, 6. 1.25kg, 7. A (2,500mm), 8. 750ml, 9. False (1,000ml = 1l), 10. 500g. Justification for Q6: 1,250g divided by 1,000 equals 1.25kg.

Word bank: millimetres · centimetres · metres · kilometres · millilitres · litres · grams · kilograms

1. Max has a bag of bananas weighing 1.5kg. How many grams is this? A) 15g B) 150g C) 1,500g* D) 15,000g (1 mark)

2. True or False: 1.5 kilometres is equal to 150 metres. (1 mark)

3. If a bottle holds 1 litre of water and Max pours out 750ml, how much is left in the bottle? (1 mark)

4. Which is equivalent to 4 kilometres? A) 400m B) 4,000m* C) 40,000m D) 400,000m (1 mark)

5. True or False: 500 millilitres is exactly half a litre. (1 mark)

6. Max buys a bag of nuts for £3.50. The bag weighs 1,250g. How many kilograms is the bag? (1 mark)

7. A climbing rope is 2.5 metres long. How many millimetres is this? A) 2,500mm* B) 250mm C) 25mm D) 0.25mm (1 mark)

8. If a jug holds 2 litres and you pour 1.25 litres out, how many millilitres remain? (1 mark)

9. True or False: 100 millilitres makes 1 litre. (1 mark)

10. Max needs 2kg of flour for a cake. He currently has 1,500g. How many more grams does he need? (1 mark)

Draw: Draw Max the monkey standing next to a giant balance scale. On one side of the scale, draw a 1kg weight, and on the other side, draw items that equal exactly 1,000 grams.

Extension challenge: 1. Explain why we use kilometres for travel distances but millimetres for measuring small insects. 2. Compare and contrast the metric units used for mass and capacity. 3. Justify your answer: If Max has £10.00 and needs to buy 5kg of apples costing £1.20 per kg, does he have enough money? Show your calculation. 4. What might happen if a scientist measured a liquid in grams instead of millilitres? 5. Create your own multi-step word problem involving a conversion between centimetres and metres. 6. Design a 'Measurement Hunt' for your classroom—list 5 items and estimate their length in centimetres and their mass in grams.