

Max's Spooky Harvest Maths Assessment

Learning objective: To apply Year 5 mathematical skills including decimal calculations, area and perimeter, and multi-step word problems within a themed context.

Read each question carefully. Show your working out clearly, as method marks may be awarded. Use units (£, cm, m²) where appropriate.

Max the monkey is preparing for the annual Autumn Harvest Festival. He needs to calculate the costs for his decorations, the dimensions of the pumpkin patches, and the weight of the harvest bags to ensure everything is perfectly organised.

Word bank: decimal · perimeter · area · calculate · equivalent · operation · estimate

1. Max buys 4 bags of decorative cobwebs at £2.45 each and a set of lanterns for £8.99. Calculate the total cost of his purchases. Show your working. (2 marks)

2. The rectangular pumpkin patch measures 12.5 metres by 8 metres. Calculate the area of the patch in square metres. If Max wants to put a fence around the perimeter, how many metres of fencing does he need? (3 marks)

3. Max has 120 autumn leaves to distribute equally among 5 baskets. How many leaves go in each basket? Explain how you would check your answer using the inverse operation. (3 marks)

4. One large pumpkin weighs 7.4kg and a smaller one weighs 3.85kg. What is the difference in weight between the two pumpkins? Justify why you must align the decimal points when subtracting these numbers. (3 marks)

5. Max finds a crate that holds 15 bags of apples. Each bag costs £3.20. If he sells all the bags, how much profit will he make if the total cost to buy the apples was £35.00? (4 marks)

6. Compare and contrast the properties of a cube-shaped sweet box and a square-based pyramid-shaped lantern. Discuss the number of vertices, edges, and faces for each. (5 marks)

7. Max has £50.00. He wants to buy 3 sacks of flour at £4.75 each and 6 packs of cinnamon sticks at £2.10 each. Does he have enough money left to buy a decorative garland for £20.00? Justify your answer with calculations. (5 marks)

Draw: Draw a composite shape representing Max's pumpkin patch and an adjacent corn maze. Label the dimensions of each section and calculate the total area of the combined shape.



Extension challenge: Imagine you are designing a budget for a school harvest party for 50 people. Create a menu with three items, assign a price per item, and calculate the total cost. Explain what might happen to your total budget if the price of one item increased by 20%. Total: /25