

Year 5 Maths Assessment: Area and Perimeter

Learning objective: To calculate the area and perimeter of rectangles and composite shapes, and to solve problems involving scaling and measurement.

Read each question carefully. Show your working out clearly, as you may gain marks for your method even if the final answer is incorrect. Use a ruler where necessary.

Max the monkey is helping his friends design a new adventure park. He needs to calculate the space for paths, flowerbeds, and play zones to ensure everything fits perfectly within the forest clearing.

Word bank: Perimeter · Area · Centimetres · Square · Composite · Calculate · Dimensions

1. Max draws a rectangular flowerbed that is 8cm long and 4cm wide. Calculate the perimeter of the flowerbed. (2 marks)

2. Using the same flowerbed (8cm by 4cm), calculate the area. Remember to use the correct units. (2 marks)

3. Zara the zebra is designing a rectangular art studio. The area of the studio is 36m^2 . If the length of the room is 9m, what is the width? (2 marks)

4. Kit the fox needs to build a wooden fence around a square play area. Each side of the square measures 7m. How much fencing does Kit need in total? (2 marks)

5. A composite shape is made of two rectangles joined together. Rectangle A is 5cm by 3cm. Rectangle B is 4cm by 2cm. Calculate the total area of the composite shape. (4 marks)

6. Nova the owl wants to build a rectangular stargazing platform. The perimeter of the platform must be exactly 20m. List two different possible sets of dimensions (length and width) that would give a perimeter of 20m. (4 marks)

7. Extended Writing Task: Max and Kit are planning a rectangular vegetable garden. They have 24 metres of fencing to create the perimeter. Max wants the garden to be 8m long. Write a short explanation to Max detailing what the width of the garden must be, and then calculate the total area of the garden. Explain how you found your answer step-by-step. (5 marks)

8. If a square tile costs £2 to cover 1m^2 of space, how much would it cost to cover a rectangular floor that is 5m long and 4m wide? (4 marks)

Draw: Draw a composite shape on the grid below with an area of 10cm^2 . Label the lengths of all sides.



Extension challenge: Total: /25