Max’s Geometry Garden

Learning objective: To identify, describe, and classify 2D shapes including quadrilaterals and triangles based on their properties.

Help Max the monkey organise his garden! Look at the shapes hidden in the flowerbeds. Follow the colour-coding key to shade the shapes correctly, then answer the questions below to show your geometric knowledge.

Max is designing a symmetrical garden. He has planted tulips in squares, daisies in rectangles, and sunflowers in triangles. To keep his garden neat, he needs to ensure all his quadrilaterals have at least one pair of parallel sides. Max loves maths puzzles; he knows that if he adds a line of symmetry to a shape, it must look exactly the same on both sides!

Word bank: quadrilateral · isosceles · scalene · parallel · perpendicular · symmetry · polygon

1. Max has a flowerbed in the shape of a rectangle. If the length is 8m and the width is 4m, what is the perimeter of this flowerbed? (2 marks)

2. Look at the triangle flowerbed Max planted. It has three sides of different lengths. What type of triangle is this? (1 mark)

3. Max wants to build a fence around a square patch. Each side is 5m long. How much fencing does he need in total? (2 marks)

4. Explain why a square is a special type of quadrilateral. (2 marks)

5. If Max buys a packet of seeds for £2.50 and a watering can for £4.75, how much does he spend in total? (2 marks)

Draw: Draw a composite shape made of one square and one triangle joined together. Label the parallel lines and draw a dotted line to show the axis of symmetry.

Extension challenge: Design your own garden layout on squared paper. Include at least one regular polygon and one irregular polygon. Calculate the total cost of the garden if each square unit of soil costs £2.00.