

Max's Geometric Garden Design

Learning objective: To identify, draw, and describe 2D shapes, including properties such as parallel lines, perpendicular lines, and line symmetry.

Max the monkey is designing a symmetrical garden! Use your ruler and pencil to help him build his landscape by following the steps below. Make sure your lines are sharp and your shapes are accurate.

Draw: Create a bird's-eye view garden plan. Use a sharp pencil and a ruler. The style should be clean and technical, like an architect's blueprint. Include a central parallelogram lawn, a pentagonal flower bed, and a path made of triangles. Add a dashed line through the centre of the garden to show the line of symmetry.



Label words: Equilateral triangle · Right-angled triangle · Parallelogram · Line of symmetry · Parallel lines · Perpendicular lines · Rhombus · Pentagon

Steps:

1. Step 1: Draw a large parallelogram to represent the main lawn. Label one pair of parallel lines using arrows.
2. Step 2: Draw a regular pentagon inside the lawn. How many lines of symmetry does a regular pentagon have?
3. Step 3: Draw a right-angled triangle in the corner of your page. Mark the perpendicular lines with a square

symbol.

4. Compare and contrast a rhombus and a square. Explain why a square is a special type of rhombus.

5. Justify your answer: If Max adds a regular hexagon to his garden, will it have more or fewer lines of symmetry than the pentagon? Explain your reasoning.

6. What might happen if Max tries to create a garden path using only shapes with no parallel lines? Is it possible?