

Max's Geometry Garden Adventure

Learning objective: To identify, describe, and compare 2D shapes, including properties like parallel and perpendicular lines, and symmetry.

Help Max the monkey sort the shapes he found in the garden. Read the descriptions below and answer the questions carefully. Use a ruler to help you with your drawings.

Max the monkey is exploring a beautiful garden. He has found several interesting shapes hidden among the flowers. He found a square stone, a rectangular wooden gate, a circular pond, and a triangular patch of clover. Max wants to know which shapes have parallel lines that never meet, and which ones have perpendicular lines that meet at a perfect 90-degree angle. He also noticed that some leaves have a line of symmetry, where one side is a mirror image of the other.

Word bank: parallel · perpendicular · symmetry · polygon · vertex · quadrilateral · right angle · horizontal · vertical

1. Max found a square stone. How many pairs of parallel lines does a square have? Explain how you know. (2 marks)

2. Which 2D shape in Max's garden has exactly three sides and three vertices? Is it a regular polygon? (2 marks)

3. Look at the rectangular gate. How many right angles does it have? Are the top and side edges perpendicular to each other? (2 marks)

4. If Max cuts a leaf with symmetry in half along its line of symmetry, what will he notice about the two pieces? (2 marks)

5. Max buys a triangular flag for £2.50 and a square frame for £3.75. How much does he spend in total? Write the amount in pounds and pence. (2 marks)

Draw: Draw a shape that has at least one pair of parallel lines and at least one right angle. Label the parallel lines with arrows and mark the right angle with a square symbol.



Extension challenge: Challenge: Can you draw a shape that has four sides, but is NOT a square or a rectangle? Label your shape and list two of its properties, such as the number of lines of symmetry or whether it has any parallel sides.