# Max’s Geometric Garden Adventure

*Learning objective: To identify, compare, and order angles up to two right angles and classify 2D shapes based on their geometric properties.*

Max the monkey is designing a new garden. Help him solve these geometry puzzles by identifying angles and shapes correctly. Use your knowledge of right angles, acute angles, and obtuse angles to help Max complete his plans.

Max is planning a garden with different shaped flowerbeds. He has a square patch for his carrots, a rhombus patch for his sunflowers, and a scalene triangle patch for his herbs. He needs to make sure all his fence corners are the right size. Some corners are exactly 90 degrees, some are smaller, and some are wider. Max uses his knowledge of angles to ensure every plant has the perfect amount of space to grow.

*Word bank: acute · obtuse · right angle · parallel · perpendicular · polygon · vertex*

**1. Max has a square vegetable patch. How many right angles does a square have, and what do we call an angle that is smaller than a right angle? (2 marks)**

**2. Max looks at his triangular herb patch. If one angle is greater than a right angle, what is the name of this type of angle? (1 mark)**

**3. Max finds a gate that has two lines that will never meet, no matter how far they extend. What is the mathematical name for these lines? (1 mark)**

**4. Max spends £12.50 on wooden stakes to mark out a rectangular path. If the path has four corners, are the lines forming the corners perpendicular or parallel? Explain your answer. (2 marks)**

**5. Look at a standard hexagon. How many vertices does it have in total? (1 mark)**

**Draw: Draw a composite shape for Max’s garden that includes at least one acute angle, one obtuse angle, and one right angle. Label each angle correctly.**

*Extension challenge: Max wants to build a larger flowerbed shaped like an octagon. How many right angles would a regular octagon have? Draw it and use a protractor or a corner of a piece of paper to check your work.*