Max’s Pattern Puzzles

Learning objective: To identify and continue sequences of shapes and patterns using rotation, reflection, and logical progression.

Max the monkey loves to solve puzzles! Look carefully at the patterns below. Decide which shape comes next in the sequence or which shape is the odd one out.

Max has laid out these puzzles for you to solve. Think about how the shapes move, change size, or turn around. Use your best observational skills to find the missing link!

Word bank: rotation · sequence · pattern · reflection · clockwise · symmetry

1. 1. Look at this sequence: A square, a triangle, a circle, a square, a triangle... What shape comes next? Explain why. (2 marks)

2. 2. A shape is rotated 90 degrees clockwise each time. If the first shape is an arrow pointing UP, draw what the third shape in the sequence would look like. (2 marks)

3. 3. Which shape is the odd one out: a square, a rectangle, a circle, or a rhombus? Why might the circle be different from the others? (2 marks)

4. 4. Max has a pattern of coins: £1, 50p, 20p, £1, 50p... If the pattern continues, what coin comes after the 50p? (2 marks)

5. 5. If a shape is reflected across a vertical line, how does its appearance change? Does its size change? (2 marks)

Draw: Draw a repeating pattern using three different shapes that includes a reflection (a mirror image) in the middle of the line.

Extension challenge: Create your own 'odd one out' puzzle for a friend using four different shapes, colours, or numbers. Write down why one of them is different from the rest.