

Max's Pattern Puzzles

Learning objective: To develop non-verbal reasoning skills by identifying patterns, sequences, and relationships between shapes and positions.

Help Max the monkey solve these logical puzzles. Look closely at the shapes, their colours, and how they move or change to find the correct answer.

Word bank: Sequence · Rotation · Reflection · Pattern · Symmetry · Clockwise

1. Max has a sequence of shapes: a triangle pointing up, a square, a triangle pointing down, a square. What is the next shape in the sequence and which way is it pointing? (2 marks)

2. Look at these two shapes. The first is a shaded circle on the left of a box. The second is a shaded circle on the right of the same box. If you have a star at the top of a box, where would it be in the matching 'reflected' box? (2 marks)

3. A pentagon rotates 90 degrees clockwise. If it was pointing 'North' (up) to begin with, which direction is it pointing after the turn? (1 mark)

4. Max is sorting coins. He has a 50p coin, a £1 coin, a 50p coin, and a £1 coin. If the pattern continues, what is the next coin in the line? (1 mark)

5. Find the odd one out: A square with 4 sides, a rectangle with 4 sides, a triangle with 3 sides, and a rhombus with 4 sides. Explain why. (2 marks)

Draw: Draw a 3x3 grid. In the first row, draw a small circle, a medium circle, and a large circle. In the second row, draw a small square, a medium square, and a large square. Predict what the third row should look like to complete Max's pattern.



Extension challenge: Create your own sequence of shapes on a piece of paper using at least three different colours. Ask a friend to identify the 'rule' of your sequence.