

Max's Magnificent Pattern Puzzle

Learning objective: To develop logical thinking and pattern recognition skills, consistent with non-verbal reasoning tasks for Year 4.

Max the monkey is organising his puzzle collection. Help him spot the patterns and complete the sequences! Read each question carefully and choose the correct option or write your answer clearly.

Answer Key: 1. C (The number of sides increases by one), 2. B (The shape rotates 90 degrees clockwise), 3. True, 4. 2 (The shape is reflected across the centre line), 5. A (The shading moves one position clockwise), 6. False, 7. Triangle, 8. C (The square is inside the circle), 9. True, 10. 4.

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

1. 1. Look at the sequence: A triangle (3 sides), a square (4 sides), a pentagon (5 sides). What comes next? A) A circle, B) A star, C) A hexagon, D) A rectangle. (Correct: C*) (1 mark)

2. 2. If a shape is pointing up and then turns to point to the right, what is this called? A) Reflection, B) Rotation, C) Symmetry, D) Translation. (Correct: B*) (1 mark)

3. 3. True or False: If a shape looks exactly the same on both sides of a line, it has symmetry. (Correct: True) (1 mark)

4. 4. If a shape is 'reflected', it is like looking at it in a: 1) Magnifying glass, 2) Mirror, 3) Window, 4) Torch. (1 mark)

5. 5. A shaded dot moves around a square: Top-left, Top-right, Bottom-right. Where is it next? A) Bottom-left, B) Top-left, C) Centre, D) Outside. (Correct: A*) (1 mark)

6. 6. True or False: A non-verbal reasoning puzzle always uses letters and words to find the answer. (1 mark)

7. 7. If you have a sequence of circle, square, triangle, circle, square, what shape comes next? (1 mark)

8. 8. Which of these shows a shape 'inside' another? A) A circle next to a square, B) A square on top of a circle, C) A square inside a circle, D) A circle under a square. (Correct: C*) (1 mark)

9. 9. True or False: In a rotation puzzle, the size of the shape usually stays the same. (1 mark)

10. 10. If Max has 4 puzzle pieces and he adds 2 more, then takes away 2, how many does he have? (1 mark)

Draw: Draw a pattern that uses three different shapes repeating in order (e.g., Star, Diamond, Heart, Star, Diamond, Heart).



Extension challenge: Create your own 'odd one out' puzzle for a friend. Draw four shapes, but make one of them different from the others (for example, make one a different colour, size, or shape) and ask a friend to identify why it is the odd one out.