

Max's Pattern Playground: Non-Verbal Reasoning Challenge

Learning objective: To identify, continue, and complete sequences of shapes and patterns, developing logical and spatial reasoning skills suitable for Grade 4.

Max the monkey has been busy creating puzzles! Look at each row of shapes below. These follow a logical rule involving rotation, size, or addition. Your task is to look at the sequence and choose the correct shape from the options provided to complete the pattern. For each question, explain the 'rule' you discovered behind the pattern.

Word bank: Rotation · Clockwise · Anti-clockwise · Symmetry · Sequence · Pattern · Reflection · Increase

1. 1. Sequence: A black triangle pointing up, a black triangle pointing right, a black triangle pointing down. What is the next shape in the sequence and why? (2 marks)

2. 2. Sequence: A small square, a medium square, a large square, a small square. What comes next and what is the rule? (2 marks)

3. 3. Sequence: A circle with one dot, a circle with two dots, a circle with three dots. How does the pattern change? (2 marks)

4. 4. Sequence: A horizontal line, a diagonal line (/), a vertical line (|). What is the next position for the line? (2 marks)

5. 5. Max has a pattern: a shaded star, an unshaded star, a shaded star. If he adds a fourth shape, what should it be and why? (2 marks)

Draw: Draw a sequence of four shapes that increases in size and rotates 90 degrees clockwise each time. Show your sequence to a partner to see if they can spot your rule!



Extension challenge: Create your own 'Odd One Out' puzzle using four different geometric shapes. One shape must be different because of a hidden rule (e.g., number of sides, color, or orientation). Give it to a friend to solve.