

Max's Pattern Puzzle Adventure

Learning objective: To identify, continue, and complete complex visual patterns using rotation, reflection, and sequence logic.

Max the monkey has been busy creating puzzles in the jungle! Help him finish these sequences. For each question, look at the visual pattern and determine the 'rule'. Then, draw the missing shape or sequence in the space provided. Remember to think about how the shapes turn, flip, or change colour.

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

1. Look at this sequence: A triangle pointing up, a triangle pointing right, a triangle pointing down. If the pattern continues by rotating 90 degrees clockwise each time, what should the fourth triangle look like? Describe or draw it. (2 marks)

2. Max has a row of shapes: a shaded circle, an unshaded square, a shaded circle, an unshaded square. If he adds two more shapes to follow this pattern, what will they be? Explain your reasoning. (2 marks)

3. Imagine a letter 'F' that is reflected in a mirror. Draw how the reflection would look compared to the original letter 'F'. (2 marks)

4. In a sequence of numbers and shapes: 2 (star), 4 (star), 6 (circle), 8 (star), 10 (star), 12 (circle). Based on the pattern of shapes, what shape should come after 14? (2 marks)

5. If a square is divided into four smaller squares and the top-left one is shaded, then the top-right one is shaded, then the bottom-right one is shaded, which square must be shaded next to continue the clockwise rotation? (2 marks)

Draw: Draw a pattern of your own that uses at least three different shapes that repeat. Include one 'rotation' in your pattern.



Extension challenge: Challenge: Create a 'Find the Odd One Out' puzzle for a friend using four different geometric shapes. Three should share a common rule (like all having four sides), and one should break that rule.