

# **Patterns in Shapes and Numbers Assessment**

Student Name:	Class:
Student ID:	Date: {{DATE}}

#### **Assessment Details**

Duration: 20 minutes	Total Marks: 20
Topics Covered:	<ul><li>Patterns in Shapes</li><li>Number Sequences</li><li>Visual Identification</li></ul>

### **Instructions to Students:**

- 1. Read all questions carefully before attempting.
- 2. Show all working out marks are awarded for method.
- 3. Use the space provided for your answers.
- 4. If you need more space, use the additional pages at the end.
- 5. Time management is crucial allocate approximately 1 minute per mark.

# Section A: Multiple Choice [5 marks]

Question 1		[1 mark
Identify the next shape in the patte	rn: Circle, Square, Circle, Square,	
A) Triangle	B) Circle	
C) Square	D) Rectangle	
Question 2		[1 mark
What comes next in the sequence:	2, 5, 8, 11, 14,	
A) 15	B) 17	
C) 18	D) 20	
Question 3		[1 mark
Identify the next shape in the sequ	ence: Red Circle, Blue Square, Red Circle, Blue Square,	
A) Red Triangle	B) Blue Circle	
C) Red Circle	D) Blue Square	

Page 0 | Patterns in Shapes and Numbers Assessment

# Section B: Short Answer Questions [8 marks]

Question 4	[4 marks]
Description the pattern in the following sequence: 1, 2, 4, 8, the sequence?	16. How would you predict the next number in
Question 5	[4 marks]
Create a simple pattern using shapes (e.g., circles, squares follows a clear sequence or repetition.	, triangles) and describe it. Ensure your pattern

# Section C: Visual Identification [7 marks]

Question 6	[3 marks]
Identify and circle the patterns in the following shapes: A series of alternating circle sequence of increasing sizes of triangles	es and squares, A
Question 7	[4 marks]
Complete the pattern by drawing the next shape: A sequence of shapes where each shape than the previous row	h row adds one more

Additional Space for Answers		
İ	 	 

# Marking Guide

The assessment will be marked as follows:

- Multiple Choice Questions: 1 point for each correct answer
- Short Answer Questions:
  - Pattern Description: 1 point for identifying the pattern, 1 point for predicting the next number correctly
  - o Pattern Creation: 1 point for creating a pattern, 1 point for describing the pattern correctly
- Visual Identification:
  - o Pattern Identification: 1 point for each correct identification
  - $\circ~$  Pattern Completion: 2 points for correctly completing the pattern

### Implementation Guidelines

Time Allocation: 20 minutes total (Section 1: 5 minutes, Section 2: 8 minutes, Section 3: 7 minutes)

Administration Tips: Ensure all students have the necessary materials (pencils, erasers, paper). For students with visual impairments, provide Braille or large print versions of the assessment. For students with mobility impairments, consider providing digital versions of the assessment that can be completed on a tablet or computer.

# Por Advanced Learners: Provide more complex patterns or ask them to create their own pattern and explain its rule. For Struggling Learners: Offer visual aids or simplify the patterns. Provide one-on-one assistance during the assessment.

### Bloom's Taxonomy Alignment

The assessment aligns with the following Bloom's Taxonomy levels:

- Knowledge/Remembering: Identifying patterns, recalling sequence rules
- Comprehension/Understanding: Describing patterns, explaining sequence rules
- Application/Applying: Completing patterns, predicting next elements
- Analysis/Analyzing: Identifying patterns in complex sequences
- Synthesis/Creating: Creating new patterns, explaining their rules
- Evaluation/Evaluating: Justifying predictions, evaluating pattern completeness

# Multiple Intelligence Approaches

The assessment incorporates the following multiple intelligence approaches:

- Visual-Spatial: Visual identification and completion of patterns
- Logical-Mathematical: Understanding and predicting sequences
- Linguistic: Describing patterns in words
- Bodily-Kinesthetic: Using physical shapes to create and demonstrate patterns

### Clear Success Criteria



- Identify and describe simple patterns
- Predict the next element in a sequence
- Apply pattern recognition to solve simple problems

# **Evidence Collection Methods**

Evidence of student learning will be collected through
--

- Observations during the assessment
- Review of student answers and creations
- Feedback from students on their thought processes

# Feedback Opportunities

# Feedback will be provided:

- Immediately during the assessment for multiple-choice questions
- After the assessment on short-answer and visual identification tasks, highlighting strengths and areas for improvement