

## Introduction

Welcome to the Patterns in Shapes and Numbers worksheet! This activity is designed for students aged 6-10 to evaluate their understanding of patterns in shapes and numbers.

## Section 1: Multiple Choice Questions

Choose the correct answer for each question:

1. Identify the next shape in the pattern: - Circle, Square, Circle, Square, \_\_\_\_\_ - A) Triangle - B) Circle - C) Square - D) Rectangle

2. What comes next in the sequence: 2, 5, 8, 11, 14, \_\_\_\_\_ - A) 15 - B) 17 - C) 18 - D) 20

3. Identify the next shape in the sequence: - Red Circle, Blue Square, Red Circle, Blue Square, \_\_\_\_\_ - A) Red Triangle - B) Blue Circle - C) Red Circle - D) Blue Square

## Section 2: Short Answer Questions

Answer the following questions in complete sentences:

1. Describe the pattern in the following sequence: 1, 2, 4, 8, 16. How would you predict the next number in the sequence?

2. Create a simple pattern using shapes (e.g., circles, squares, triangles) and describe it. Ensure your pattern follows a clear sequence or repetition.

## Section 3: Visual Identification

Identify and circle the patterns in the following shapes:

A series of alternating circles and squares

[Space for visual identification]

A sequence of increasing sizes of triangles

[Space for visual identification]

## Pattern Completion

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*Complete the pattern by drawing the next shape:*

A sequence of shapes where each row adds one more shape than the previous row

[Space for pattern completion]

## Additional Activities

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*Choose one of the following activities:*

1. Find examples of patterns in the classroom or at home. Draw or describe the patterns you find.
2. Create a new pattern using a combination of shapes and colors. Explain the rule behind your pattern.

[Space for additional activities]

## Assessment Rubric

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*The following rubric will be used to assess your work:*

- Multiple Choice Questions: 3 points
- Short Answer Questions: 4 points
- Visual Identification: 4 points
- Additional Activities: 2 points

## Teacher Notes

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*Provide feedback and guidance to students as needed. Encourage students to explain their thinking and reasoning behind their answers.*

## Answer Key

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*The following answers are provided for reference:*

- Multiple Choice Questions:
  - 1. B) Circle
  - 2. B) 17
  - 3. C) Red Circle
- Short Answer Questions:
  - 1. The pattern is obtained by doubling the previous term. The next number in the sequence would be 32.
  - 2. Answers will vary, but students should demonstrate an understanding of pattern creation and description.
- Visual Identification:
  - 1. Answers will vary, but students should be able to identify the patterns in the shapes.
  - 2. Answers will vary, but students should be able to complete the pattern correctly.

