



## Introduction and Instructions

*This assessment is designed to evaluate your understanding of basic algebraic equations, geometric shapes, fractions, and decimals, as well as your problem-solving skills in real-world scenarios. Please read each question carefully and answer to the best of your ability.*

## Multiple Choice Questions (15 minutes)

Choose the correct answer for each question.

1. What is the value of  $x$  in the equation  $2x + 5 = 11$ ?
  - A) 2
  - B) 3
  - C) 4
  - D) 5
2. Which of the following shapes has four right angles?
  - A) Triangle
  - B) Rectangle
  - C) Square
  - D) Circle
3. What is the decimal equivalent of  $3/4$ ?
  - A) 0.25
  - B) 0.5
  - C) 0.75
  - D) 1.0
4. What is the sum of  $1/2$  and  $1/4$ ?
  - A)  $1/4$
  - B)  $1/2$
  - C)  $3/4$
  - D) 1
5. What is the area of a rectangle with a length of 6cm and a width of 4cm?
  - A)  $10\text{cm}^2$
  - B)  $12\text{cm}^2$
  - C)  $20\text{cm}^2$
  - D)  $24\text{cm}^2$
6. What is the value of  $x$  in the equation  $x - 2 = 7$ ?
  - A) 5
  - B) 6
  - C) 9
  - D) 10

## Short Answer Questions (15 minutes)

Answer each question in the space provided.

1. Solve the equation  $x + 1 = 9$ .

2. Find the perimeter of a rectangle with a length of 8cm and a width of 5cm.

3. A bakery sells 200 loaves of bread at £1.20 each. How much money does the bakery make in a day?

4. What is the difference between  $\frac{1}{2}$  and  $\frac{1}{4}$ ?

5. What is the volume of a cube with a side length of 6cm?

6. A car travels 250 miles in 5 hours. How many miles does it travel per hour?

## Project-Based Question (15 minutes)

Tom has £20 to spend on tickets to a theme park. The cost of a ticket is £4. How many tickets can Tom buy?

### Foundation:

Draw a diagram to show how many tickets Tom can buy.

**Core:**

Write a short paragraph explaining how you solved the problem.

**Extension:**

Create a table to show how many tickets Tom can buy if the cost of a ticket increases by 50p.

## Marking Guide

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*The marking guide for this assessment is as follows:*

- Multiple Choice Questions: 1 mark for each correct answer
- Short Answer Questions:
  - Foundation: 2 marks for a correct solution
  - Core: 3 marks for a correct solution
  - Extension: 4 marks for a correct solution
- Project-Based Question:
  - Foundation: 3 marks for a correct diagram
  - Core: 4 marks for a correct paragraph
  - Extension: 5 marks for a correct table

## Implementation Guidelines

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*The implementation guidelines for this assessment are as follows:*

- Time allocation: 45 minutes
- Administration tips:
  - Ensure students have access to pens, pencils, and paper.
  - Provide a calculator for students to use during the assessment.
  - Allow students to ask questions if they are unsure about any of the tasks.

## Differentiation Options

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*The differentiation options for this assessment are as follows:*

- Visual: Provide diagrams and charts to support students with visual learning needs.
- Auditory: Provide audio recordings of the questions and tasks for students with auditory learning needs.
- Kinaesthetic: Provide hands-on activities and manipulatives for students with kinaesthetic learning needs.
- English as an Additional Language (EAL): Provide a bilingual dictionary or a translation of the assessment in the student's first language.
- Special Educational Needs (SEN): Provide additional support and accommodations as needed, such as extra time, a reader, or a scribe.

## Bloom's Taxonomy Alignment

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*The Bloom's Taxonomy alignment for this assessment is as follows:*

- Knowledge: Multiple choice questions and short answer questions
- Comprehension: Short answer questions and project-based question
- Application: Project-based question
- Analysis: Short answer questions and project-based question
- Synthesis: Project-based question
- Evaluation: Project-based question

## Multiple Intelligence Approaches

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*The multiple intelligence approaches for this assessment are as follows:*

- Linguistic: Multiple choice questions and short answer questions
- Logical-Mathematical: Multiple choice questions and short answer questions
- Spatial: Project-based question
- Bodily-Kinaesthetic: Project-based question
- Musical: Not applicable
- Interpersonal: Not applicable
- Intrapersonal: Project-based question
- Naturalistic: Not applicable

## Clear Success Criteria

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*The clear success criteria for this assessment are as follows:*

- Students will be able to solve basic algebraic equations.
- Students will be able to identify and apply geometric shapes.
- Students will be able to demonstrate knowledge of fractions and decimals.
- Students will be able to develop problem-solving skills using real-world scenarios.

## Evidence Collection Methods

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*The evidence collection methods for this assessment are as follows:*

- Student answers and solutions to multiple choice questions and short answer questions.
- Student diagrams and paragraphs for the project-based question.
- Teacher observations of student participation and engagement during the assessment.

## Feedback Opportunities

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*The feedback opportunities for this assessment are as follows:*

- Immediate feedback on multiple choice questions and short answer questions.
- Feedback on project-based question within one week of completion.
- Feedback will be provided in the form of written comments and grades.
- Students will have the opportunity to reflect on their performance and set goals for future improvement.

## Additional Activities

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*The additional activities for this assessment are as follows:*

- Create a word problem using algebraic equations and have students solve it.
- Have students create their own geometric shapes using different materials (e.g. paper, straws, etc.).
- Create a real-world scenario involving fractions and decimals and have students solve it.
- Have students create a presentation or poster about a mathematical concept they have learned.

## Extension Activities

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*The extension activities for this assessment are as follows:*

- Have students create their own project-based question and solve it.
- Create a math scavenger hunt with problems involving algebraic equations, geometric shapes, fractions, and decimals.
- Have students create a math game or puzzle involving mathematical concepts.
- Create a math competition where students can compete against each other to solve math problems.



