

In **Math Operations Grade 4**, students are able to develop and practice their skills with the principal mathematical operations - addition, subtraction, multiplication and division. The program features more than 50 activities and countless number questions and word problems. To allow students to build their skills sequentially, the difficulty of the questions in each unit slowly increases. To capture the student's interest, **Math Operations Grade 4** uses hundreds of colorful graphics, animations, sound effects and music. These rewards will motivate the students to continue learning with the software.

#### **Targeted Skills**

- Addition up to 5 digit by 5 digit, adding more than two numbers, missing term, estimation, word problems
- Subtraction up to 5 digit from 5 digit, missing term, estimation, word problems
- Multiplication facts to 12, multiples, 2 and 3 digits by 1 digit, more than two factors, estimation, missing factor, word problems
- Division facts from 144, missing divisor, remainders, long division (3 and 4 digits by 1 digit), estimation, word problems

#### **Marks Manager**

The Marks Manager tracks student progress throughout each program and records the percentage score for every activity completed. This feature provides an overview of how well a student is progressing and allows the teacher to identify strengths and weaknesses.

- · Records students' results automatically as they work.
- Prints reports quickly and easily for sharing with parents and staff.
- Provides summary reports by subject or detailed reports by activity.
- Allows teachers to print reports for individual students or an entire class.
- Stores student marks in one central location for all programs.

### **Program Outline**

The program is broken down into 4 main units, which can all be accessed from the main menu. On the following pages, each of these different units are broken down. The main menu units are:

- 1. Addition 14 activities
- 2. Subtraction 12 activities
- 3. Multiplication 13 activities
  - 4. Division 12 activities

### 1. Addition

ACTIVITY NAME	CONTENT	REQUIRED SKILLS
Three to Three (2 activities)	Answer addition problems digit-by-digit. The cursor will be placed in the correct spot to guide students through the problem.	Add two 3-5 digit numbers.
Four to Four (2 activities)		
Five to Five (2 activities)		
Addition Challenge	Answer addition problems without digit-by-digit help. This requires students to line the digits up and carry digits on their own.	Correctly set up addition problems.  Add two 3-5 digit numbers.
More Than Two (2 activities)	Answer multi-term addition problems digit- by-digit. The cursor will be placed in the correct spot to guide students through the problem.	Add more than two 2-5 digit numbers.
Missing Term	Find the missing term in a basic addition problem.	Perform basic algebra with simple addition problems.
Estimation I	Round two numbers to the nearest hundred, then estimate a solution to the problem.	Estimate answers to addition problems.
Estimation II	Round two numbers to the nearest thousand, then estimate a solution to the problem.	
Complete the Chart	Fill in missing entries in an addition chart.	Add two 3-5 digit numbers.
Addition Word Problems	Apply addition skills in basic real-world addition word problems.	Add two 3-5 digit numbers.  Add more than two 2-5 digit numbers.

### 2. Subtraction

ACTIVITY NAME	CONTENT	REQUIRED SKILLS
Three from Three (2 activities)	Answer subtraction problems digit-by-digit. The cursor will be placed in the correct spot to guide students through the problem.	Subtract two 3-5 digit numbers.
Four from Four (2 activities)		
Five from Five (2 activities)		
Subtraction Challenge	Answer subtraction problems without digit- by-digit help. This requires students to line the digits up and carry digits on their own.	Correctly set up subtraction problems. Subtract two 3-5 digit numbers.
Missing Term	Find the missing term in a basic subtraction problem.	Perform basic algebra with simple subtraction problems.
Estimation I	Round two numbers to the nearest hundred, then estimate a solution to the problem.	Estimate answers to subtraction problems.
Estimation II	Round two numbers to the nearest thousand, then estimate a solution to the problem.	
Complete the Chart	Fill in missing entries in an subtraction chart.	Subtract two 3-5 digit numbers.
Subtraction Word Problems	Apply subtraction skills in basic real-world subtraction word problems.	

### 3. Multiplication

ACTIVITY NAME	CONTENT	REQUIRED SKILLS
Complete the Table	Fill in missing entries in a multiplication table.	Recall multiplication facts to 12 x 12.
First Five Multiples	Enter the first five multiples of a given number.	Understand concept of multiples.
Next Three Numbers	Enter the next three numbers in a given pattern.	Use multiplication to extend basic patterns.
Multiplication Facts (2 activities)	Quickly answer the multiplication fact questions.	Recall multiplication facts to 12 x 12.
Two Digits Multiplied by One Digit	Answer multiplication problems digit-by-digit. The cursor will be placed in the correct spot to guide students through the problem.	Multiply 2-3 digit numbers by 1 digit.
Three Digits Multiplied by One Digit		
More Than Two Factors	Answer multi-term multiplication problems without digit-by-digit help. This requires students to line the digits up and carry digits on their own.	Multiply more than two numbers.
Estimation	Round the multi digit number to the nearest hundred, then estimate a solution to the problem.	Estimate answers to multiplication problems.
Find the Missing Factor	Find the missing term in a basic multiplication problem.	Perform basic algebra with simple multiplication problems.
Shortcuts	Answer multiple questions to learn multiplication shortcuts.	Discover and apply basic multiplication shortcuts.
How Much Greater?	How much greater is one equation than another equation?	Understand concept of addition to solve conceptual problems.
Multiplication Word Problems	Apply multiplication skills in basic real-world multiplication word problems.	Multiply 2-3 digit numbers by 1 digit.

### 4. Division

ACTIVITY NAME	CONTENT	REQUIRED SKILLS
Division Facts (2 activities)	Quickly answer the division fact questions without remainders.	Recall division facts from 144.
Find the Missing Divisor	Find the missing term in a basic division problem.	Perform basic algebra with simple division problems.
Remainder Equations	Quickly answer the division fact questions with remainders.	Recall division facts from 144.  Understand concept of remainders.
Long Division - 3 Digits by 1 Digit (2 activities)	Answer division problems digit-by-digit. The cursor will be placed in the correct spot to guide students through the problem.	Divide 3-4 digit numbers by 1 digit.
Long Division - 4 Digits by 1 Digit (2 activities)		
Estimation	Round the multi digit number to the nearest hundred, then estimate a solution to the problem.	Estimate answers to division problems.
Shortcuts	Answer multiple questions to learn division shortcuts.	Discover and apply basic division shortcuts.
Division Word Problems	Apply division skills in basic real-world multiplication word problems.	Recall division facts from 144.
Remainder Word Problems		Divide 3-4 digit numbers by 1 digit.