Number Concepts Grade 6

Developed by teachers and mathematics specialists, **Number Concepts Grade 6** provides the strategies, skills and practice your students need to develop strong mathematics proficiency. The program teaches the major concepts in grade 6 level numeration. Helpful clues and examples, along with exciting audio-visual content, ensure that students of all learning styles can use the software independently. **Number Concepts Grade 6** is an effective and engaging way to improve student performance with the main concepts of numeracy.

Targeted Skills

- Number Sense: negative numbers, numbers greater than 1,000,000 - standard form/expanded forms, greater than/less than, place value, ordering, rounding, skip counting, written forms

- Fractions: reduce fractions, using lowest common denominators, equivalent fractions, add/subtract/ multiply/divide fractions with like/unlike denominators, word problems

- Decimals: add/subtract/multiply/divide decimals up to thousandths, rounding, converting to fractions, word problems

- Percentages: concept, finding from fractions and decimals, taxes/tips/word problems

- Ratios: describing from pictures, finding from percents, equivalent ratios

- Learn the Order of Operations: concept, basic problems with order of operations

- Bringing it All Together: puzzle-based problems, comparing fractions, decimals, percent, ratios

Teacher Dashboard

The Teacher Dashboard 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 7 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. Number Sense

2. Fractions

3. Decimals

4. Percentages

5. Ratios

6. Learn the Order of Operations

7. Bringing it All Together

1 - Number Sense

ACTIVITY NAME	INSTRUCTION	REQUIRED SKILLS
Write in Standard Form I	Write a standard form or written number in expanded form.	understand expanded and standard forms for numbers up 1,000,000+
Write in Standard Form II		
Write in Expanded Form	Write an expanded form number in standard form.	
Place Value	Identify the digit in the given place value.	understand place value for numbers to 1,000,000+
Make Biggest and Smallest (2 activities)	Make the biggest and smallest number you can from a given set of digits.	
Greater, Less or Equal?	Compare and order numbers to 1,000,000+	order numbers to 1,000,000+
Order the Numbers		
Round and Round	Round numbers to various place values up to 1,000,000+	round numbers to 1,000,000+
Round Three Times		
Skip Counting	Count by various increments up to 1,000,000+	understand skip counting up to 1,000,000+
Missing Numbers	Enter the missing term in an expanded form notation equation.	understand expanded and standard forms for numbers up to 1,000,000+

2 - Fractions

ACTIVITY NAME	INSTRUCTION	REQUIRED SKILLS
Reduce Fractions Review	Reduce the fraction you see to the lowest terms.	convert fractions to lowest terms
Finding Lowest Common Denominator	Find the lowest common denominator and convert a pair of fractions.	convert and use pairs of fractions to their lowest common denominator
Using Lowest Common Denominator	Find and use the lowest common denominator to convert fractions.	
Make Equivalent Fractions	Enter a digit to complete a given fraction equivalency.	understand order of fractions understand and make equivalent fractions
Are the Fractions Equal?	Are two given fractions equal?	
Greater, Less or Equal	Is the fraction you see greater than, less than or equal to another fraction?	
Order the Fractions	Click on the fractions you see in order.	
Add & Subtract Fractions (2 activities)	Add and subtract fractions with unlike denominators.	add and subtract fractions with unlike denominators
Multiplying Fractions (3 activities)	Multiply the fractions with unlike denominators.	multiply fractions with unlike denominators
Dividing Fractions (2 activities)	Divide the fractions with unlike denominators.	divide fractions with unlike denominators
Fractions of Numbers	Use multiplication to determine the value of a fraction of a whole number.	determine the value of a fraction of a whole number
Word Problems	Solve mathematical word problems involving fractions.	apply mathematical concepts to real-world applications compare the value of various fractions add and subtract fractions with unlike denominators multiply and divide fractions with unlike denominators

3 - Decimals

ACTIVITY NAME	INSTRUCTION	REQUIRED SKILLS
Type the Decimal	Type the standard form of a written decimal.	understand written form of decimals to thousandths
Fractions to Decimals	Convert a given fraction to a decimal.	understand relationship between fractions and decimals
Adding Decimals	Add and subtract decimals to thousandths.	add and subtract decimals to thousandths
Subtracting Decimals		
Which Decimal is Closest?	Which decimal is closest to a given number?	
Rounding Problems	Type the sum of two numbers rounded to certain points.	round decimals to thousandths add and subtract decimals to thousandths
Multiplying Decimals I	Multiply decimals up to thousandths.	multiply and divide decimals to thousandths
Multiplying Decimals II		
Multiplying and Divide by 10s	Use shortcuts to multiply and divide decimals by 10, 100, 1000.	
Dividing Decimals I	Divide decimals up to thousandths.	
Dividing Decimals II		
Which is the Best Buy?	Solve mathematical word problems involving money and decimals.	apply mathematical concepts to real-world applications add and subtract decimals to hundredths
Decimal Word Problems		

4 - Percentages

ACTIVITY NAME	INSTRUCTION	REQUIRED SKILLS
What Percentage is Colored? I	What percent of a given segmented shape is colored?	understand concept of percentages
What Percentage is Colored? II		
Estimate How Much is Highlighted	Estimate the highlighted percentage of a given shape.	estimate percentages
Fractions to Percent I	Convert given fractions to percentages.	convert between fractions, decimals and percentages
Fractions to Percent II		
Decimals to Percent I	Convert given decimals to percentages.	
Decimals to Percent II		
Decimals to Percent III		
Percentage Of I	Use percentages to calculate value of a portion of a whole number.	calculate the percentage of a given value
Percentage Of II		
Taxes and Tips	Solve mathematical word problems involving percentages.	apply mathematical concepts to real-world applications
Percentage Word Problems		convert between fractions, decimals and percentages

5 - Ratios

ACTIVITY NAME	INSTRUCTION	REQUIRED SKILLS
Match the Ratios	Match the numerical form of a ratio with its written form.	understand the concept behind ratios

reduce ratios to lowest terms |
Simplify the Ratio	Reduce a given ratio to lowest terms.	
The Ratios You See I	Match a picture with a ratio from a given list.	
The Ratios You See II		
The Ratios You See III		
Vowels and Consonants	Match a ratio of vowels and consonants in a given word.	
Ratios as Percents	Write each ratio you see as a percent.	
Make Equivalent Ratios	Enter the missing number from a given ratio equivalency.	
Divide the Items I	Divide a set amount of items into a given ratio.	
Divide the Items II		

6 - Learn the Order of Operations

ACTIVITY NAME	INSTRUCTION	REQUIRED SKILLS
Click the Order	Click the operations in order.	understand and apply the order of operations in basic equations
Which One First?	If solving this equation, which operation would you calculate first.	
Order of Operations I	Solve this basic equation involving the order of operations.	
Order of Operations II		
Order of Operations III		

7 - Bringing it All Together

ACTIVITY NAME	INSTRUCTION	REQUIRED SKILLS
Magic Boxes I	Solve the magic box puzzles with addition and subtraction.	problem solving and puzzle skills
Magic Boxes II		
Magic Boxes III		
Number Lines	Compare, order and convert between fractions, decimals, percentages and ratios.	understand relationship between fractions, decimals, percentages and ratios order and convert between fractions, decimals, percentages and ratios
Find the Matching Value I		
Find the Matching Value II		
Order Lowest to Highest I		
Order Lowest to Highest II		
Fractions, Decimals, Percent and Ratios I		
Fractions, Decimals, Percent and Ratios I		