

Main Criteria: Georgia Standards of Excellence
Secondary Criteria: Elementary Mathematics Grade 5 v22
Subject: Mathematics
Grade: 5
Correlation Options: Show Correlated

Georgia Standards of Excellence
Mathematics
Grade: 5 - Adopted: 2021

STRAND/TOPIC **5th Grade**

STANDARD / DESCRIPTION		NUMERICAL REASONING – place value, multiplying by powers of 10, multiplication and division of multi-digit numbers, fractions, decimal numbers, numerical expressions
ELEMENT	5.NR.1:	Use place value understanding to solve real-life, mathematical problems.

ELEMENT/GLE 5.NR.1.1. Explain that in a multi-digit number, a digit in one place represents 10 times as much as it represents in the place to its right and $\frac{1}{10}$ of what it represents in the place to its left.

Elementary Mathematics Grade 5 v22
01.01 Place Value of Whole Numbers and Decimals
01.03 Explore Multiplying by Multiples of 10
04.01 Divide by Multiples of 10
04.04 Estimate Quotients

ELEMENT/GLE 5.NR.1.2. Explain patterns in the placement of digits when multiplied or divided by a power of 10. Use whole-number exponents to denote powers of 10, up to 10^3 .

Elementary Mathematics Grade 5 v22
01.03 Explore Multiplying by Multiples of 10
01.04 Explore Dividing by Multiples of 10
01.07 Plot, Order, and Compare Decimals
03.01 Multiply by Multiples of 10
03.02 Multiply Using a Standard Algorithm
04.01 Divide by Multiples of 10
04.02 Divide Using a Standard Algorithm
04.06 Divide Decimals
04.07 Solve Word Problems with Decimals
09.01 Convert Time
09.02 Convert Customary Units of Capacity
09.03 Convert Customary Units of Weight
09.05 Introduction to the Metric System
09.06 Convert Metric Units of Length
09.07 Convert Metric Units of Capacity
09.08 Convert Metric Units of Mass

STRAND/TOPIC **5th Grade**

STANDARD / DESCRIPTION		NUMERICAL REASONING – place value, multiplying by powers of 10, multiplication and division of multi-digit numbers, fractions, decimal numbers, numerical expressions
ELEMENT	5.NR.2:	Multiply and divide multi-digit whole numbers to solve relevant, mathematical problems.

ELEMENT/GLE	5.NR.2.1.	Fluently multiply multi-digit (up to 3-digit by 2-digit) whole numbers to solve authentic problems.
		<u>Elementary Mathematics Grade 5 v22</u> 01.03 Explore Multiplying by Multiples of 10 01.07 Plot, Order, and Compare Decimals 03.01 Multiply by Multiples of 10 03.02 Multiply Using a Standard Algorithm 03.03 Multiply Multi-Digit Numbers 03.04 Estimate Products 03.05 Multiply a Decimal by a Whole Number 04.01 Divide by Multiples of 10 04.07 Solve Word Problems with Decimals 06.01 Multiply Fractions and Whole Numbers 09.01 Convert Time 09.03 Convert Customary Units of Weight 09.04 Convert Customary Units of Length 09.07 Convert Metric Units of Capacity 09.08 Convert Metric Units of Mass

ELEMENT/GLE	5.NR.2.2.	Fluently divide multi-digit whole numbers (up to 4-digit dividends and 2-digit divisors no greater than 25) to solve practical problems.
		<u>Elementary Mathematics Grade 5 v22</u> 01.04 Explore Dividing by Multiples of 10 04.01 Divide by Multiples of 10 04.02 Divide Using a Standard Algorithm 04.03 Divide Multi-Digit Numbers 04.04 Estimate Quotients 04.05 Divide Decimals by Whole Numbers 04.07 Solve Word Problems with Decimals 07.05 Classify Three-Dimensional Shapes by Attribute 09.01 Convert Time 09.03 Convert Customary Units of Weight 09.04 Convert Customary Units of Length 09.07 Convert Metric Units of Capacity 09.08 Convert Metric Units of Mass

STRAND/TOPIC

5th Grade

STANDARD / DESCRIPTION		NUMERICAL REASONING – place value, multiplying by powers of 10, multiplication and division of multi-digit numbers, fractions, decimal numbers, numerical expressions
ELEMENT	5.NR.3:	Describe fractions and perform operations with fractions to solve relevant, mathematical problems using part-whole strategies and visual models.

ELEMENT/GLE	5.NR.3.1.	Explain the meaning of a fraction as division of the numerator by the denominator ($a/b = a \div b$). Solve problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers.
		<u>Elementary Mathematics Grade 5 v22</u> 04.03 Divide Multi-Digit Numbers 06.01 Multiply Fractions and Whole Numbers 06.04 Estimate Products of Fractions 06.05 Connect Fractions to Division Equations 06.06 Dividing Fractions and Whole Numbers 06.07 Solve Problems Using Division

ELEMENT/GLE	5.NR.3.3.	Model and solve problems involving addition and subtraction of fractions and mixed numbers with unlike denominators.
		<u>Elementary Mathematics Grade 5 v22</u> 05.02 Add Fractions by Finding Common Denominators 05.03 Add Mixed Numbers with Unlike Denominators 05.04 Subtract Fractions with Unlike Denominators 05.05 Subtract Mixed Numbers with Unlike Denominators 05.06 Add and Subtract Fractions with Mixed Numbers 05.07 Improper Fractions 12.03 Interpret Coordinate Values
ELEMENT/GLE	5.NR.3.4.	Model and solve problems involving multiplication of a fraction and a whole number.
		<u>Elementary Mathematics Grade 5 v22</u> 06.01 Multiply Fractions and Whole Numbers 06.02 Multiply Fractions by Fractions 06.04 Estimate Products of Fractions 06.05 Connect Fractions to Division Equations
ELEMENT/GLE	5.NR.3.5.	Explain why multiplying a whole number by a fraction greater than one results in a product greater than the whole number, and why multiplying a whole number by a fraction less than one results in a product less than the whole number and multiplying a whole number by a fraction equal to one results in a product equal to the whole number.
		<u>Elementary Mathematics Grade 5 v22</u> 06.01 Multiply Fractions and Whole Numbers 06.02 Multiply Fractions by Fractions 06.04 Estimate Products of Fractions 06.05 Connect Fractions to Division Equations
ELEMENT/GLE	5.NR.3.6.	Model and solve problems involving division of a unit fraction by a whole number and a whole number by a unit fraction.
		<u>Elementary Mathematics Grade 5 v22</u> 06.06 Dividing Fractions and Whole Numbers 06.07 Solve Problems Using Division

STRAND/TOPIC

5th Grade

STANDARD / DESCRIPTION		NUMERICAL REASONING – place value, multiplying by powers of 10, multiplication and division of multi-digit numbers, fractions, decimal numbers, numerical expressions
ELEMENT	5.NR.4:	Read, write, and compare decimal numbers to the thousandths place, and round and perform operations with decimal numbers to the hundredths place to solve relevant, mathematical problems.

ELEMENT/GLE	5.NR.4.1.	Read and write decimal numbers to the thousandths place using base-ten numerals written in standard form and expanded form.
		<u>Elementary Mathematics Grade 5 v22</u> 01.01 Place Value of Whole Numbers and Decimals 01.02 Decimals as Fractions 01.05 Compose and Decompose Decimals 01.07 Plot, Order, and Compare Decimals 02.01 Adding Decimals 07.02 Classify Quadrilaterals 12.02 Graphing on the Coordinate Plane

ELEMENT/GLE	5.NR.4.2.	Represent, compare, and order decimal numbers to the thousandths place based on the meanings of the digits in each place, using $>$, $=$, and $<$ symbols to record the results of comparisons.
<u>Elementary Mathematics Grade 5 v22</u> 01.07 Plot, Order, and Compare Decimals 03.05 Multiply a Decimal by a Whole Number		

ELEMENT/GLE	5.NR.4.3.	Use place value understanding to round decimal numbers to the hundredths place.
<u>Elementary Mathematics Grade 5 v22</u> 01.06 Rounding Decimals 02.02 Estimating Sums 02.04 Estimating Differences 03.04 Estimate Products 03.07 Use Number Sense to Multiply Decimals 04.04 Estimate Quotients		

ELEMENT/GLE	5.NR.4.4.	Solve problems involving addition and subtraction of decimal numbers to the hundredths place using a variety of strategies.
<u>Elementary Mathematics Grade 5 v22</u> 02.01 Adding Decimals 02.02 Estimating Sums 02.03 Subtracting Decimals 02.04 Estimating Differences 07.03 Classify Two-Dimensional Shapes 08.01 Area and Perimeter of a Rectangle 09.06 Convert Metric Units of Length		

STRAND/TOPIC **5th Grade**

STANDARD / DESCRIPTION		NUMERICAL REASONING – place value, multiplying by powers of 10, multiplication and division of multi-digit numbers, fractions, decimal numbers, numerical expressions
ELEMENT	5.NR.5:	Write, interpret, and evaluate numerical expressions within authentic problems.

ELEMENT/GLE	5.NR.5.1.	Write, interpret, and evaluate simple numerical expressions involving whole numbers with or without grouping symbols to represent actual situations.
<u>Elementary Mathematics Grade 5 v22</u> 10.04 Translating Expressions and Descriptions 10.05 Interpret Numerical Expressions		

STRAND/TOPIC **5th Grade**

STANDARD / DESCRIPTION		PATTERNING & ALGEBRAIC REASONING – generating patterns, plotting ordered pairs in the first quadrant
ELEMENT	5.PAR.6:	Solve relevant problems by creating and analyzing numerical patterns using the given rule(s).

ELEMENT/GLE	5.PAR.6. 1.	Generate two numerical patterns using two given rules. Identify apparent relationships between corresponding terms by completing a table. <u>Elementary Mathematics Grade 5 v22</u> 11.03 Make and Analyze Line Graphs 11.04 Analyze Line Plots 11.05 Make Line Plots 12.01 The Coordinate System 12.02 Graphing on the Coordinate Plane 12.03 Interpret Coordinate Values 12.04 Numerical Patterns 12.05 Apply Algebraic Functions 12.06 Analyze and Graph Relationships
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ELEMENT/GLE	5.PAR.6. 2.	Represent problems by plotting ordered pairs and explain coordinate values of points in the first quadrant of the coordinate plane. <u>Elementary Mathematics Grade 5 v22</u> 12.01 The Coordinate System 12.02 Graphing on the Coordinate Plane 12.03 Interpret Coordinate Values 12.06 Analyze and Graph Relationships
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STRAND/TOPIC

5th Grade

STANDARD / DESCRIPTION		MEASUREMENT & DATA REASONING – measurements within the metric system, measurement conversions and time as a unit of measurement
ELEMENT	5.MDR.7 :	Solve problems involving customary measurements, metric measurements, and time and analyze graphical displays of data to answer relevant questions.

ELEMENT/GLE	5.MDR.7. 1.	Explore realistic problems involving different units of measurement, including distance, mass, weight, volume, and time. <u>Elementary Mathematics Grade 5 v22</u> 09.02 Convert Customary Units of Capacity 09.03 Convert Customary Units of Weight 09.04 Convert Customary Units of Length 09.06 Convert Metric Units of Length 09.07 Convert Metric Units of Capacity 09.08 Convert Metric Units of Mass
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ELEMENT/GLE	5.MDR.7. 3.	Convert among units within the metric system and then apply these conversions to solve multi-step, practical problems. <u>Elementary Mathematics Grade 5 v22</u> 08.06 Solve Real-World Problems Using Volume 09.01 Convert Time 09.02 Convert Customary Units of Capacity 09.03 Convert Customary Units of Weight 09.05 Introduction to the Metric System 09.06 Convert Metric Units of Length 09.07 Convert Metric Units of Capacity 09.08 Convert Metric Units of Mass 12.06 Analyze and Graph Relationships
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ELEMENT/GLE	5.MDR.7.4.	Convert among units within relative sizes of measurement units within the customary measurement system.
		<u>Elementary Mathematics Grade 5 v22</u> 08.06 Solve Real-World Problems Using Volume 09.01 Convert Time 09.02 Convert Customary Units of Capacity 09.03 Convert Customary Units of Weight 09.04 Convert Customary Units of Length 09.05 Introduction to the Metric System 09.07 Convert Metric Units of Capacity 09.08 Convert Metric Units of Mass

STRAND/TOPIC

5th Grade

STANDARD / DESCRIPTION		GEOMETRIC & SPATIAL REASONING – Properties of polygons and rectangular prisms, classify polygons
ELEMENT	5.GSR.8 :	Examine properties of polygons and rectangular prisms, classify polygons by their properties, and discover volume of right rectangular prisms.

ELEMENT/GLE	5.GSR.8.2.	Determine, through exploration and investigation, that attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.
		<u>Elementary Mathematics Grade 5 v22</u> 07.01 Classify Triangles 07.02 Classify Quadrilaterals 07.03 Classify Two-Dimensional Shapes 07.04 Classify Three-Dimensional Shapes

ELEMENT/GLE	5.GSR.8.3.	Investigate volume of right rectangular prisms by packing them with unit cubes without gaps or overlaps. Then, determine the total volume to solve problems.
		<u>Elementary Mathematics Grade 5 v22</u> 08.03 Develop a Volume Formula 08.04 Volume of Prisms 08.05 Combine Volume of Prisms 08.06 Solve Real-World Problems Using Volume

ELEMENT/GLE	5.GSR.8.4.	Discover and explain how the volume of a right rectangular prism can be found by multiplying the area of the base times the height to solve authentic, mathematical problems.
		<u>Elementary Mathematics Grade 5 v22</u> 08.03 Develop a Volume Formula 08.04 Volume of Prisms 08.05 Combine Volume of Prisms 08.06 Solve Real-World Problems Using Volume