Mathematical Practices

- ☐ Make sense of problems and persevere in solving them.
- ☐ Reason abstractly and quantitatively.
- ☐ Construct viable arguments and critique the reasoning of others.
- ☐ Model with mathematics.
- ☐ Use appropriate tools strategically.
- ☐ Attend to precision.
- ☐ Look for and make use of structure.
- ☐ Look for and express regularity in repeated reasoning.

Vocabulary

Module 1
Absolute value
Additive inverse
Difference
Expression
Integers
Model
Negative number
Opposites
Positive number
Sum
Whole number

Module 2
Divide
Dividend
Divisor
Integers
Multiply
Negative number
Operation
Opposites
Positive number
Product
Quotient

Module 3
Additive inverse
Integers
Native numbers
Opposite
Pattern
Positive numbers
Rational number
Repeating decimals-
Terminating decimal
Whole numbers

Prerequisites

Last year, teachers spent a large majority of the instructional time on these focus skills.
This year, students should have a strong foundation in the following areas:

Major Work	Supporting Work	Additional Work (Minor)
Understand ratio concepts and use ratio reasoning to solve problems. Apply and extend previous understandings of multiplication and division to divide fractions by fractions. Apply and extend previous understandings of numbers to the system of rational numbers. Apply and extend previous understandings of arithmetic to algebraic expressions. Reason about and solve one-variable equations and inequalities. Represent and analyze quantitative relationships between dependent and independent variables.	Solve real-world and mathematical problems involving area, surface area, and volume.	Compute fluently with multi-digit numbers and find common factors and multiples. Develop understanding of statistical variability. Summarize and describe distributions.

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Camela Diaz
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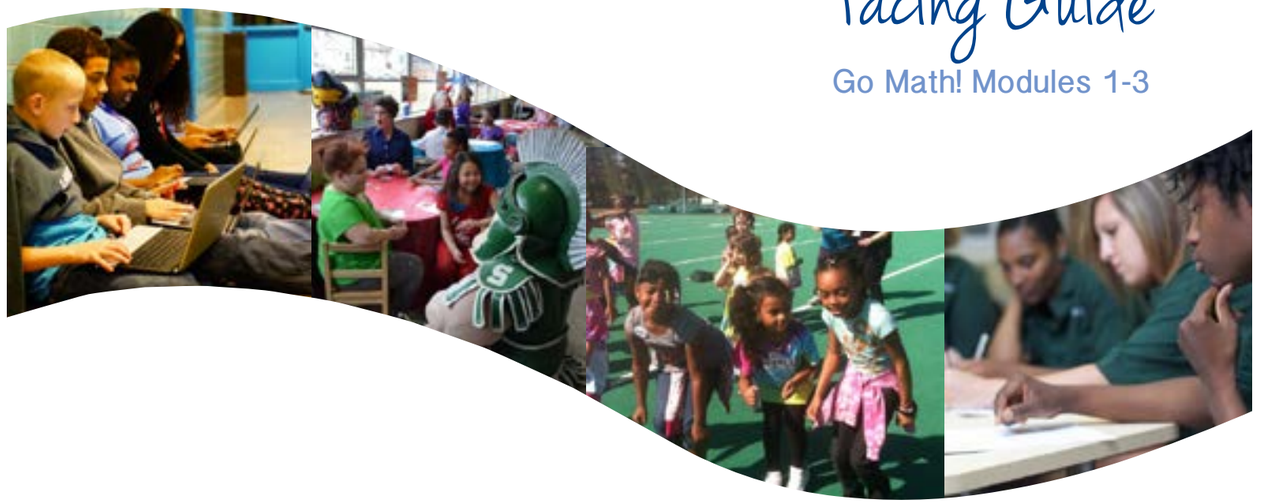
Seventh Grade • First Quarter

Pacing Guide

Go Math! Modules 1-3



Mathematics

Introduction to Your Mathematics Pacing Guide

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Grade 7 Mathematics First Quarter

Ratios & Proportional Relationships

This is not a focus area during this quarter.

Continue to reinforce skills and concepts previously introduced, as necessary.

The Number System

7.NS.1

- ☐ **I CAN** describe situations that have opposite quantities combining to make zero.
- ☐ **I CAN** place a number and its opposite value on a horizontal and vertical number line.
- ☐ **I CAN** demonstrate situations that have opposite quantities combining to make zero.
- ☐ **I CAN** give an example of additive inverses and use it to subract rational numbers.
- ☐ **I CAN** add and subract rational numbers in real-world situations.
- ☐ **I CAN** show that the distance between two points on a number line is the absolute value of their difference.
- ☐ **I CAN** demonstrate using real-world examples that absolute value is never negative.
- ☐ **I CAN** explain and apply the associative, commutatiave, identity, and inverse properties of addition using rational numbers.

7.NS.2

- ☐ **I CAN** multiply and divide rational numbers.
- ☐ **I CAN** use the distributive property with rational numbers.
- ☐ **I CAN** multiply and divide rational numbers in real-world context.
- ☐ **I CAN** understand that integers can only be divided by non-zero divisors.
- ☐ **I CAN** interpret quotients of rational numbers by describing real-world contexts.
- ☐ **I CAN** explain that a negative fraction must have either a negative numerator or negative denominator.
- ☐ **I CAN** explain and apply the associative, commutative, identity, and inverse properties of multipication using rational numbers.
- ☐ **I CAN** convert a rational number to a decimal (by hand) and explain that the decimal form of a rational number either terminates in zero or repeats.
- ☐ **I CAN** recognize the difference between a repeating decimal and terminating decimal.

7.NS.3

- ☐ **I CAN** create and solve mathematical rational number problems.
- ☐ **I CAN** and solve real world rational number problems.

Expressions & Equations

7.EE.3

- ☐ **I CAN** solve multi-step word problems with rational numbers.
- ☐ **I CAN** convert between whole numbers, fractions and decimals if needed in solving a problem.
- ☐ **I CAN** determine if my answers are reasonable using mental math and estimation.
- ☐ **I CAN** apply properties of operations to solve problems using rational numbers.

Geometry

This is not a focus area during this quarter.

Continue to reinforce skills and concepts previously introduced, as necessary.

Statistics & Probability

This is not a focus area during this quarter.

Continue to reinforce skills and concepts previously introduced, as necessary.

Mathematical Practices

- ☐ Make sense of problems and persevere in solving them.
- ☐ Reason abstractly and quantitatively.
- ☐ Construct viable arguments and critique the reasoning of others.
- ☐ Model with mathematics.
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- ☐ Look for and express regularity in repeated reasoning.

Vocabulary

Module 4
Complex fraction
Constant
Constant of Proportionality
Conversion factor
Percent
Proportion
Proportional relationship
Rate
Rate of change
Ratio
Unit rates

Module 5
Proportion
Percent
Ratio
Unit rate
Percent decrease
Percent increase
Principal
Simple interest

Module 6
Algebraic expression
Distributive property
Equation
Factor
Operation
Solution
Variable

Module 7
Algebraic expression
Coefficient
Equation
Greater than
Inequality
Integers
Less than
Operations
Solution
Variable

Prerequisites

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Seventh Grade • Second Quarter

Pacing Guide

Go Math! Modules 4-7

Mathematics

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Grade 7 Mathematics Second Quarter

Ratios & Proportional Relationships

7.RP.1
- ☐ **I CAN** find the unit rate given a ratio of fractions in a variety of real-world situations.
- ☐ **I CAN** accurately identify unit rates.

7.RP.2
- ☐ **I CAN** identify that two quantities are in a proportional relationship.
- ☐ **I CAN** use a table to determine if two quantities are in a proportional relationship.
- ☐ **I CAN** recognize that two quantities are proportional if their ordered pairs form a straight line through the origin.
- ☐ **I CAN** determine the constant of proportionality (rate of change) given a table.
- ☐ **I CAN** determine the constant of proportionality (rate of change) given a graph.
- ☐ **I CAN** determine the constant of proportionality (rate of change) given a diagram.
- ☐ **I CAN** identify the constant of proportionality (rate of change) given an equation.
- ☐ **I CAN** determine the constant of proportionality (rate of change) given a verbal description.
- ☐ **I CAN** translate a real world situation into an equation to demonstrate proportionality.
- ☐ **I CAN** create a table to demonstrate proportionality.
- ☐ **I CAN** identify the unit rate as the y-coordinate when the x-coordinate is one (1) when given a graph
- ☐ **I CAN** identify the unit rate as the y-coordinate when the x-coordinate is one (1) when given a table.

7.RP.3
- ☐ **I CAN** convert a percent into a proportional relationship out of 100.
- ☐ **I CAN** convert a percent to a fraction or decimal when used in calculations.
- ☐ **I CAN** convert between fractions, decimals and percents.
- ☐ **I CAN** solve real-world multi-step ratio and percent problems.

The Number System

This is not a focus area during this quarter.

Continue to reinforce skills and concepts previously introduced, as necessary.

Expressions & Equations

7.EE.1
- ☐ **I CAN** apply the distributive property to expand expressions.
- ☐ **I CAN** identify and combine like terms utilizing commutative and associative properties for addition.
- ☐ **I CAN** identify a common factor to find an equivalent expression.

7.EE.2
- ☐ **I CAN** rewrite an expression in an equivalent form in order to see how quantities are related.

7.EE.4
- ☐ **I CAN** solve multi-step equations using rational numbers.
- ☐ **I CAN** create multi-step equations from real-world situations using rational numbers.
- ☐ **I CAN** use formulas and substitute information given to solve for the unknown.
- ☐ **I CAN** compare an algebraic solution to an arithmetic solution.
- ☐ **I CAN** identify the sequence of the operations used to solve the equation of a word problem.
- ☐ **I CAN** solve multi-step inequalities with the distributive property using rational numbers.
- ☐ **I CAN** create multi-step inequalities using rational numbers.
- ☐ **I CAN** graph the solution set of an inequality using rational numbers.
- ☐ **I CAN** interpret the solution of the problem involving inequalities by using its graph.

Geometry

This is not a focus area during this quarter.

Continue to reinforce skills and concepts previously introduced, as necessary.

Statistics & Probability

This is not a focus area during this quarter.

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Mathematical Practices

- ☐ Make sense of problems and persevere in solving them.
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Vocabulary

Module 8
Adjacent angles
Angle
Complementary angles
Congruent angles
Cross section
Degree
Dimension
Intersection
Length
Proportion
Polygon
Ratio
Scale
Scale drawing
Supplementary angles
Vertical angles
Width

Module 9
Area
Circumference
Composite figure
Diameter
Parallelogram
Perimeter
Prism
Radius
Rectangle
Square
Trapezoid
Triangle
Volume

Module 10
Biased sample
Box plot
Data
Dot plot
Interquartile range
Lower quartile
Median
Population
Random sample
Sample
Spread
Survey
Upper quartile

Prerequisites

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Seventh Grade • Third Quarter

Pacing Guide

Go Math! Modules 8-10

Mathematics

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Grade 7 Mathematics Third Quarter

Ratios & Proportional Relationships	The Number System	Expressions & Equations	Geometry	Statistics & Probability
This is not a focus area during this quarter. *Continue to reinforce skills and concepts previously introduced, as necessary.*	***This is not a focus area during this quarter.*** *Continue to reinforce skills and concepts previously introduced, as necessary.*	***This is not a focus area during this quarter.*** *Continue to reinforce skills and concepts previously introduced, as necessary.*	**7.G.1** ☐ **I CAN** use proportions to find unknown lengths of geometric figures. ☐ **I CAN** use scale drawings to find areas of geometric figures. ☐ **I CAN** reproduce a scale drawing at a different scale. **7.G.2** ☐ **I CAN** draw a triangle (freehand, with a ruler and protractor, and technology). ☐ **I CAN** identify the conditions that make a triangle unique. ☐ **I CAN** determine the uniqueness of a triangle based on given angle and/or side measurements. **7.G.3** ☐ **I CAN** identify the quadrilaterals that are made when a right rectangular prism is sliced. ☐ **I CAN** identify the quadrilaterals that are made when a right rectangular pyramid is sliced. **7.G.4** ☐ **I CAN** identify the formulas for circumference and area of a circle. ☐ **I CAN** find the area and circumference of a circle. ☐ **I CAN** find the circumference of circle when given the area and vice versa. ☐ **I CAN** show that π can be derived from the circumference and diameter of a circle. **7.G.5** ☐ **I CAN** identify angles as supplementary, complementary, vertical, and adjacent pairs. ☐ **I CAN** determine unknown angles' measures by using multi-step equations based on angle pairs. ☐ **I CAN** write and solve an equation involving angle pair measures. **7.G.6** ☐ **I CAN** substitute into formulas and solve for unknown quantities. ☐ **I CAN** find the area of triangles, quadrilaterals, and other polygons. ☐ **I CAN** find the volume of cubes and right prisms. ☐ **I CAN** find the surface area of cubes and right prisms.	**7.SP.1** ☐ **I CAN** define the following statistics vocabulary: population, sample, sample size, random sample, representative sample, simulated sample, inference, valid, biased, and unbiased. ☐ **I CAN** use a sample to generalize a population. ☐ **I CAN** use a random sampling to produce representative samples and support valid inferences. **7.SP.2** ☐ **I CAN** choose an appropriate sample size of a population. ☐ **I CAN** analyze and interpret data from a random sample to draw inferences about a population. ☐ **I CAN** generate multiple samples (simulated samples). ☐ **I CAN** use multiple samples (or simulated samples) of the same size to find variation in estimates or predictions. ☐ **I CAN** compare actual data with my predictions/ estimates from samples.

Mathematical Practices

- ☐ Make sense of problems and persevere in solving them.
- ☐ Reason abstractly and quantitatively.
- ☐ Construct viable arguments and critique the reasoning of others.
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Vocabulary

Module 11
Box plot
Data
Dot plot
Interquartile range
Mean
Mean absolute deviation (MAD)
Measure of center
Measure of spread
Median
Survey

Module 12
Complement
Compound event
Data
Event
Experiment
Experimental probability
Observation
Outcome
Percent
Probability
Ratio
Simple event
Simulation
Trial

Module 13
Complement
Compound event
Event
Experiment
Outcome
Simple event
Probability
Theoretical probability

Prerequisites

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Seventh Grade • Fourth Quarter

Pacing Guide

Go Math! Modules 11-13

Mathematics

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Grade 7 Mathematics Fourth Quarter

Ratios & Proportional Relationships

This is not a focus area during this quarter.

Continue to reinforce skills and concepts previously introduced, as necessary.

The Number System

This is not a focus area during this quarter.

Continue to reinforce skills and concepts previously introduced, as necessary.

Expressions & Equations

This is not a focus area during this quarter.

Continue to reinforce skills and concepts previously introduced, as necessary.

Geometry

This is not a focus area during this quarter.

Continue to reinforce skills and concepts previously introduced, as necessary.

Statistics & Probability

7.SP.3
- ☐ **I CAN** identify measures of central tendency (mean, median, and mode) in a data distribution.
- ☐ **I CAN** identify measures of variation including range, upper quartile, lower quartile, interquartile range, outliers, and mean absolute deviation (average of the distances between data points and the mean).
- ☐ **I CAN** compare two numerical data distributions on a plot.
- ☐ **I CAN** compare the differences in the measure of central tendency in two numerical data distributions.

7.SP.4
- ☐ **I CAN** find measures of central tendency (mean, median, and mode) and measures of variability (range, quartile, etc.) of a random sample.
- ☐ **I CAN** use measures of central tendency and variability to compare random samples of two populations.
- ☐ **I CAN** make informal inferences (conclusions) comparing two populations from random samples.

7.SP.5
- ☐ **I CAN** recognize that likelihood of an event is expressed as a rational number between 0 and 1.

7.SP.6
- ☐ **I CAN** find the relative frequency (experimental probability) as the number of times an outcome occurs divided by the total number of times the experiment is completed.
- ☐ **I CAN** find the theoretical probability of a chance event as the number of favorable outcomes divided by the total number of outcomes.
- ☐ **I CAN** compare the relationship between experimental and theoretical probabilities of an event.
- ☐ **I CAN** predict the relative frequency (experimental probability) of an event based on the theoretical probability.

7.SP.7
- ☐ **I CAN** create and use a probability model, which may or may not be uniform.
- ☐ **I CAN** analyze a probability model and justify why it is uniform or not.
- ☐ **I CAN** find the theoretical probability of a chance event as the number of favorable outcomes divided by the total number of outcomes.
- ☐ **I CAN** compare the relationship between experimental and theoretical probabilities of an event and explain possible sources of discrepancy.

7.SP.8
- ☐ **I CAN** define and describe a compound event.
- ☐ **I CAN** recognize that the probability of a compound event is the fraction of outcomes in the sample space for which the compound event occurs.
- ☐ **I CAN** find and represent outcomes in the sample spaces for compound events from an organized list, table, or tree diagram.
- ☐ **I CAN** design and use a simulation for compound events to generate frequencies.