

**6<sup>th</sup> Grade Math**  
Pacing Guide First Semester  
**1<sup>st</sup> Quarter**

**Unit Title:** The Number System

**Essential Questions:**

How can you use integers to solve real-world problems?

How can you use greatest common factors and least common multiples to solve real-world problems?

How can you use rational numbers to solve real-world problems?

How can you use operations with fractions to solve real-world problems?

How can you use operations with decimals to solve real-world problems?

**Grade Readiness**

**Readiness skills (behaviors):** Students can:

- compare and order whole numbers, fractions, and decimals.
- relate fractions and decimals.
- multiply/divide whole numbers, fractions, and decimals.
- add/subtract whole numbers, fractions, and decimals.

**Knowledge (Standards):** Students who demonstrate understanding can:

- interpret and compute quotients of fractions.
- solve contextual problems involving division of fractions by fractions.
- fluently divide multi-digit numbers using a standard algorithm.
- fluently add, subtract, multiply, and divide multi-digit decimals.
- find the greatest common factor of two whole numbers.
- understand that positive and negative numbers are used together to describe quantities having opposite directions or values.
- use positive and negative numbers to represent quantities in real-world contexts.
- understand a rational number as a point on the number line.
- understand ordering and absolute value of rational numbers.
- solve real-world and mathematical problems by graphing points in all four quadrants of the coordinate plane.

Pacing	Instruct. Days	TN Standards	Differentiation (ELL, SPED, Intervention, Enrichment)	Mathematical Processes	Resources	Assessments/ District Benchmarks/ State Exams
Quarter 1 Week 1	5	Procedures and welcome backs	IEP Accommodations  Small groups  Scaffolding  levelled materials  ability grouping  anchor charts	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath  Khan Academy  Mastery Connect  Google Classroom  MTM  EngageNY	TN Pre-Req Test  CASE 21 Diagnostic

			EngageNY supplemental (Enriched)			
Quarter 1 Week 2	5	<b>6.NS.C.5</b> <b>6.NS.C.6</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 1 Week 3	5	<b>6.NS.C.6</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 1 Week 4	5	<b>6.NS.C.7</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 1 Week 5	4	6.NS.C.8 and 6.NS.C cluster test <b>6.NS.C.8</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	6.NS.C.8 and 6.NS.C cluster test

Quarter 1 Week 6	5	<b>6.NS.B.2</b> <b>6.NS.B.3</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 1 Week 7	5	<b>6.NS.B.2</b> <b>6.NS.B.3</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 1 Week 8	5	<b>6.NS.B.4</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 1 Week 9	5	<b>6.NS.A.1</b> <b>6.NS.B.4</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	CASE benchmark

**6<sup>th</sup> Grade Math**  
Pacing Guide First Semester  
**2<sup>nd</sup> Quarter**

**Unit Title:** Expression and Equations

**Essential Questions:**

How can you generate equivalent numerical expressions and use them to solve real-world problems?

How can you generate equivalent algebraic expressions and use them to solve real-world problems?

How can you use equations and relationships to solve real-world problems?

How can you use relationships in two variables to solve real-world problems?

**Grade Readiness**

**Readiness skills (behaviors):** Students can:

- understand operations with whole numbers, decimals, and fractions, prime numbers, order of operations, properties of operations, operations with rational numbers.
- recognize the difference between additive and multiplicative numerical patterns given in a table or graph.
- graph a relationship on a number line.
- identify and locate ordered pairs of whole numbers in the first quadrant.

**Knowledge (Standards):** Students who demonstrate understanding can:

- write and evaluate numerical expressions involving whole-number exponents.
- write, read, and evaluate expressions in which variables stand for numbers.
- apply the properties of operations to generate equivalent expressions.
- identify when expressions are equivalent.
- understand solving an equation or inequality is carried out by determining if any of the values from a given set make the equation or inequality true.
- use substitution to determine whether a given number in a specified set makes an equation or inequality true.
- use variables to represent numbers and write expressions when solving a real-world or mathematical problem.
- understand that a variable can represent an unknown number.
- solve real-world and mathematical problems by writing and solving one-step equations.
- interpret and write an inequality in a real-world or mathematical problem.
- recognize that inequalities have infinitely many solutions.
- represent solutions of inequalities on number line diagrams.
- use variables to represent two quantities in a real-world problem that change in relationship to one another.

Pacing	Instruct. Days	TN Standards	Differentiation (ELL, SPED, Intervention, Enrichment)	Mathematical Processes	Resources	Assessments/ District Benchmarks/ State Exams
Quarter 2 Week 1	5	<b>6.EE.A.1</b> <b>6.EE.A.2</b>	IEP Accommodations Small groups Scaffolding levelled materials	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain	GoMath Khan Academy Mastery Connect Google Classroom	

			ability grouping anchor charts EngageNY supplemental (Enriched)	solutions in context to the problem.	MTM EngageNY	
Quarter 2 Week 2	5	<b>6.EE.A.2</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 2 Week 3	5	<b>6.EE.A.3</b> <b>6.EE.A.4</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 2 Week 4	4	<b>6.EE.A.4</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 2 Week 5	5	<b>6.EE.A.5</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM	

			anchor charts EngageNY supplemental (Enriched)		EngageNY	
Quarter 2 Week 6	5	<b>6.EE.A.6</b> <b>6.EE.A.7</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 2 Week 7	5	<b>6.EE.A.7</b> <b>6.EE.A.8</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	CASE benchmark
Quarter 2 Week 8	5	<b>6.EE.A.9</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	

**6<sup>th</sup> Grade Math**  
Pacing Guide Second Semester  
**3<sup>rd</sup> Quarter**

**Unit Title:** Ratios, Proportions, and Supporting Work of the Grade

**Essential Questions:**

- How can you use ratios and rates to solve real-world problems?
- How can you use percent to solve real-world problems?
- How can you find the area of an irregular polygon using area formulas?
- How can you solve problems by drawing polygons in the coordinate plane?
- How can a model help you to solve surface area and volume problems?
- How can you solve real-world problems by displaying, analyzing, and summarizing data?

**Grade Readiness**

**Readiness skills (behaviors):** Students can:

- write a ratio as a fraction, identify and write equivalent ratios.
- determine whether two ratios form a proportion.
- relate fractions to percent and percent to decimals and find the percent of a number.

**Knowledge (Standards):** Students who demonstrate understanding can:

- understand the concept of a ratio and use ratio language to describe a ratio relationship between two quantities.
- understand the concept of a unit rate.
- use rate language in the context of a ratio relationship.
- use ratio and rate reasoning to solve real-world and mathematical problems.
- find the area of right triangles, other triangles, special quadrilaterals, and polygons.
- find the volume of a right rectangular prism.
- draw polygons in the coordinate plane.
- use coordinates to find the length of a side.
- represent three-dimensional figures using nets.
- use nets to find the surface area of a figure.
- recognize a statistical question and understand that a set of data collected to answer a statistical question has a distribution which can be described by its center, spread, and overall shape.
- distinguish between measures of center and measures of variation.

Pacing	Instruct. Days	TN Standards	Differentiation (ELL, SPED, Intervention, Enrichment)	Mathematical Processes	Resources	Assessments/ District Benchmarks/ State Exams
Quarter 3 Week 1	4	<b>6.RP.A.1</b> <b>6.RP.A.2</b>	IEP Accommodations Small groups Scaffolding levelled materials	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom	

			ability grouping anchor charts EngageNY supplemental (Enriched)		MTM EngageNY	
Quarter 3 Week 2	5	<b>6.RP.A.3</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 3 Week 3	4	<b>6.RP.A.3</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 3 Week 4	5	<b>6.G.A.1</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 3 Week 5	5	<b>6.G.A.2</b> <b>6.G.A.3</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM	



			anchor charts EngageNY supplemental (Enriched)		EngageNY	
Quarter 3 Week 6	5	<b>6.G.A.4</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 3 Week 7	5	<b>6.SP.A.1</b> <b>6.SP.A.2</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 3 Week 8	4	<b>6.SP.A.2</b> <b>6.SP.A.3</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 3 Week 9	5	<b>6.SP.A.3</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM	

			anchor charts EngageNY supplemental (Enriched)		EngageNY	
Quarter 3 Week 10	5	Review	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	CASE benchmark

**6<sup>th</sup> Grade Math**  
Pacing Guide Second Semester

**4<sup>th</sup> Quarter**

**Title:** Wrap-up and Review

**Essential Questions:**

How can you use plots and measures of spread to describe data sets?

How can you use measures of center and variability to summarize numerical data sets?

**Grade Readiness**

**Readiness skills (behaviors):** Students can:

- construct pictographs, line plots, and bar graphs to solve problems.
- describe numerical data sets using measures of center, spread, and overall shape.
- represent data on line plots and solve problems involving information presented on line plots.

**Knowledge (Standards):** Students who demonstrate understanding can:

- display a single set of numerical data using dot plots, box plots, pie charts and stem plots.
- summarize numerical data sets in relation to their context.

Pacing	Instruct. Days	TN Standards	Differentiation (ELL, SPED, Intervention, Enrichment)	Mathematical Processes	Resources	Assessments/ District Benchmarks/ State Exams
Quarter 4 Week 1	5	<b>6.SP.B.4</b> <b>6.SP.B.5</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 4 Week 2	5	<b>6.SP.B.4</b> <b>6.SP.B.5</b>	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	

Quarter 4 Week 3	4	6.NS and 6.EE intensive review	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 4 Week 4	5	6.NS and 6.EE intensive review	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 4 Week 5	5	6.RP, 6.SP, and 6.G intensive review	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 4 Week 6	5	7 <sup>th</sup> Grade NS Standards Introduction	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	<b>TNReady</b>

Quarter 4 Week 7	5	7 <sup>th</sup> Grade NS Standards Introduction	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 4 Week 8	5	7 <sup>th</sup> Grade NS Standards Introduction	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	
Quarter 4 Week 9	5	7 <sup>th</sup> Grade NS Standards Introduction	IEP Accommodations Small groups Scaffolding levelled materials ability grouping anchor charts EngageNY supplemental (Enriched)	Students find/highlight key terms in word problems, express solutions in complete sentences, and explain solutions in context to the problem.	GoMath Khan Academy Mastery Connect Google Classroom MTM EngageNY	