



## Mathematics Grade 6 Accelerated Year at a Glance

### Scope and Sequence 2022 - 2023

**Please Note:** All standards in the state course description are designed to be learned by the end of the course. This guide represents a recommended timeline and sequence to be used voluntarily by teachers for planning purposes. Specific question regarding when content will be addressed in a specific course are best answered by the individual teacher.

### Course Resources

#### Publisher Resource:

[Math Nation](#) (Clever – use your active directory; does not support Internet Explorer)

#### Supplemental Resources:

[Khan Academy](#) (6<sup>th</sup> Grade; does not support Internet Explorer)

[Illustrative Mathematics](#) (6<sup>th</sup> Grade; does not support Internet Explorer)

### In Grade 6, instructional time will emphasize five areas:

- (1) Performing all four operations with integers, positive decimals and positive fractions with procedural fluency;
- (2) Exploring and applying concepts of ratios, rates and percent to solve problems;
- (3) Creating, interpreting, and using expressions and equations
- (4) Extending geometric reasoning to plotting points on the coordinate plane, area, and volume of geometric figures and
- (5) Extending understanding of statistical thinking.



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### Quarter 1 (August 10 – October 14)

#### **Unit 1: Number Sense and Operations with Positive Numbers**

Students will explore greatest common factor, least common multiple, multiplication and division of multi-digit numbers with decimals to the thousandths, and multiplication and division to compute products and quotients of positive fractions.

#### **Unit 2: Fractions, Percentages, and Decimals**

Students will create equivalent forms of fractions, decimals, and percentages to solve multi-step real-world problems involving any of the four operations with positive multi-digit decimals or positive fractions including mixed numbers.

#### **Unit 3: Understanding Rational Numbers**

Students will focus on the placement of rational numbers on the number line and employ the equivalent forms of numbers written as fractions, decimals, and percentages.

#### **Unit 4: The Coordinate Plane**

Students will plot rational number coordinate pairs on the coordinate plane in all four quadrants and will find distances along horizontal or vertical lines without the formal understanding of subtraction of integers, but with the formal understanding of absolute value.

#### **Unit 5: Ratios and Rates**

Students will explore and apply concepts of ratios and rates.

### Quarter 2 (October 18 – December 21)

#### **Unit 5: Ratios and Rates**

Students will continue to explore and apply concepts of ratios, rates and percent to solve problems.

#### **Unit 6: Operations with Integers**

Students will focus on exponents, prime factorization, and learn operations of integers with the support of manipulatives.

#### **Unit 7: Area**

Students will apply operations of positive decimals and fractions to solve problems involving area.

#### **Unit 8: Surface Area and Volume**

Students will focus on volume and surface area of rectangular prisms and pyramids.



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### Quarter 3 (January 5 – March 9)

#### **Unit 9: Data Sets**

Students will calculate measures of center and variation. Students will also represent and interpret one-variable data distributions in histograms, line plots, and box plots.

#### **Unit 10: Representing Data and Distributions**

Students will be able to match data displays, identify outliers, and justify measures of center and variations.

#### **Unit 11: Operations with Rational Numbers**

Students will extend their learning of operations with integers from Unit 6 to include operations with rational numbers

#### **Unit 12: Solving Multi-Step Problems with Proportional Relationships**

Students will apply their understanding of proportional relationships to solve multi-step real-world percent problems and utilize their understanding of equivalent forms of rational numbers.

### Quarter 4 (March 20 – May 25)

#### **Unit 12: Solving Multi-Step Problems with Proportional Relationships**

Students will continue to apply their understanding of proportional relationships to solve multi-step real-world percent problems and utilize their understanding of equivalent forms of rational numbers.

#### **Unit 13: Algebraic Expressions**

Students will apply operations with integers in evaluating algebraic expressions and adding and subtracting expressions.

#### **Unit 14: Equations and Inequalities**

Students will solve one-step equations and one-step inequalities.

#### **Unit 15: Probability**

Students will understand equivalent forms of rational numbers by applying these equivalent forms to probability of events.