



Pearson

Gifted and Talented Math 6 A

Semester A Summary:

In this course, the student will learn, practice, and apply the fundamental skills and strategies that will help them grow into strong mathematical thinkers. Mathematical instruction is presented in close alignment with the Common Core State Standards (CCSS), including the Standards for Mathematical Practices. Daily instruction supports student learning of core math concepts and development of procedural fluency regarding ordering numbers; working with whole numbers and decimals; ratios and percentages; rates and measurements; the coordinate plane; number theory and fractions; and adding and subtracting fractions. Students are encouraged to use visual representations of their thinking to bridge their understanding between the concrete and abstract, allowing patterns and mathematical principles to come to life. Peer Model videos throughout provide illustrations of a peer learning how to use and apply the target mathematical skill using a real-world example. 21st Century instruction further illustrates the connection of mathematical concepts to the real world while supporting students' development of skills, knowledge, and expertise they must master to succeed in work and life. Mathematical discussion prompts encourage students to revise misunderstanding, uncover nuances in application, make connections to prior knowledge, identify patterns, and engage with vocabulary. Students are encouraged to listen critically, critique the reasoning of others, and justify their own solutions. The course is designed to support a growth mindset regarding math and encourages students to engage in productive struggle; instructional materials explicitly and frequently remind students that mistakes are opportunities for learning and acquiring new skills. Together the course elements ensure the student grows as a mathematical thinker and masters the skills to succeed in work and life.

Semester A Outline

1. Gifted and Talented Math 6 A Course Overview

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2. Ordering Numbers

1. Opposite Numbers
 - In this section, you will use positive and negative numbers to describe quantities as having opposite directions or values.
2. Model with Opposite Numbers
 - In this section, you will use positive and negative numbers, and zero, to represent amounts in real-world examples.
3. Model with Opposite Numbers Discussion
4. Opposites on a Number Line
 - In this section, you will recognize opposite numbers.
 - In this section, you will recognize that the opposite of the opposite of a number is the number itself.
5. Statements of Order

- In this section, you will interpret inequalities to determine the relative position of two numbers on a number line.
- 6. Model with Statements of Order
 - In this section, you will write and interpret statements of order for rational numbers in real-world contexts.
- 7. Absolute Value
 - In this section, you will describe the absolute value of a rational number as its distance from zero on the number line.
- 8. Model with Absolute Value
 - In this section, you will use signed numbers to represent real-life situations and interpret absolute value as a magnitude of a positive or negative quantity.
- 9. Ordering Numbers vs Ordering Absolute Value
 - In this section, you will distinguish comparisons of absolute value from statements about order.
- 10. Ordering Numbers Apply
- 11. Ordering Numbers Review
- 12. Ordering Numbers Unit Test

3. Whole Numbers and Decimals

1. Whole Numbers and Decimals Introduction
2. Add Whole Numbers
 - In this section, you will add multi-digit whole numbers using the standard algorithm.
3. Add Decimals
 - In this section, you will add multi-digit decimals using the standard algorithm.
4. Subtract Whole Numbers
 - In this section, you will subtract whole numbers, using this skill to solve real-world problems.
5. Subtract Decimals
 - In this section, you will subtract decimals, using this skill to solve real-world problems.
6. Multiply Whole Numbers
 - In this section, you will multiply multi-digit whole numbers using the standard algorithm.
7. Multiply Decimals
 - In this section, you will multiply decimal numbers using the standard algorithm.
8. Divide Whole Numbers and Decimals
 - In this section, you will divide multi-digit whole numbers using the standard algorithm.
 - In this section, you will divide multi-digit decimal numbers using the standard algorithm.
9. Divide Whole Numbers and Decimals Portfolio
10. Whole Numbers and Decimals Apply
11. Whole Numbers and Decimals Review
12. Whole Numbers and Decimals Unit Test

4. Ratios and Percents

1. Ratios and Percents Introduction
2. Representing Ratios
 - In this section, you will represent ratios in three ways.
 - In this section, you will use ratio language to describe a ratio relationship between two quantities.

3. Tape Diagrams
 - In this section, you will use tape diagrams to solve real-world problems.
4. Make Tables of Equivalent Ratios
 - In this section, you will make tables of equivalent ratios relating quantities with whole-number measurements.
5. Use Tables of Equivalent Ratios
 - In this section, you will look for and express regularity in repeated reasoning to find missing values in tables of equivalent ratios.
6. Compare Ratios
 - In this section, you will use tables to compare ratios.
7. Convert Percent to Rate
 - In this section, you will find a percentage of a quantity as a rate per 100.
8. Ratios and Percents Apply
9. Ratios and Percents Review
10. Ratios and Percents Unit Test

5. Rates and Measurement

1. Rates and Measurement Introduction
2. Proportional Relationships
 - In this section, you will use ratios to describe proportional relationships.
 - In this section, you will describe unit rates in terms of ratios.
3. Find Unit Rates
 - In this section, you will convert a given ratio into a unit rate.
4. Constant Speed
 - In this section, you will solve unit rate problems involving constant speed.
5. Unit Pricing
 - In this section, you will solve unit rate problems involving unit pricing.
6. Solve Unit Rate Problems
 - In this section, you will solve unit rate problems that apply to situations you may encounter in real life.
7. Measurement Units
 - In this section, you will sort measurement units by size and type.
8. Working with Measurement Units
 - In this section, you will convert units by multiplying or dividing quantities.
9. Convert Measurement Units
 - In this section, you will convert units of measurement using ratio reasoning.
10. Rates and Measurement Apply
11. Rates and Measurement Review
12. Rates and Measurement Unit Test

6. The Coordinate Plane

1. The Coordinate Plane Introduction
2. The Coordinate Plane
 - In this section, you will plot integers and other rational numbers on horizontal and vertical number lines.
 - In this section, you will identify all of the parts of a coordinate plane (axes, tick marks, quadrants, points, etc.).
3. Identifying Quadrants
 - In this section, you will describe signs of numbers in ordered pairs and how they indicate locations in quadrants on a coordinate plane.
4. Reflections of Points

- In this section, you will recognize that when the coordinates of two ordered pairs differ only by signs, the locations of the points are related by reflections across one or both axes.
5. Plotting Ordered Pairs
 - In this section, you will plot pairs of integers and other rational numbers (ordered pairs) in all four quadrants of a coordinate plane.
 6. Coordinate Plane Problems
 - In this section, you will solve mathematical and real-world problems by graphing points in all four quadrants of the coordinate plane.
 - In this section, you will solve mathematical and real-world problems using coordinates and absolute value to find distances between points with the same first coordinate or the same second coordinate.
 7. Coordinate Plane Problems Portfolio
 8. Ratios in the Coordinate Plane
 - In this section, you will plot ratios with whole-number measurements on the coordinate plane.
 9. Using Ratios in the Coordinate Plane
 - In this section, you will solve real-world and mathematical problems by plotting ratios on a coordinate plane.
 10. The Coordinate Plane Apply
 11. The Coordinate Plane Review
 12. The Coordinate Plane Unit Test

7. Number Theory and Fractions

1. Number Theory and Fractions Introduction
2. Prime and Composite Numbers
 - In this section, you will be able to determine if one number is divisible by another number.
 - In this section, you will classify numbers as prime or composite.
3. Prime and Composite Numbers Discussion
4. Factors of Composite Numbers
 - In this section, you will identify the whole number factors of a composite number.
5. Prime Factorization
 - In this section, you will be able to express a whole number as a product of its prime factors using exponents.
6. Greatest Common Factor
 - In this section, you will find the greatest common factor of two whole numbers.
7. The Distributive Property
 - In this section, you will use the Distributive Property to express a sum of two whole numbers that share a common factor.
8. Equivalent Fractions and Mixed Numbers
 - In this section, you will identify fractions that are equivalent to a given fraction.
 - In this section, you will convert improper fractions to mixed numbers and vice versa.
9. Fraction, Decimal, and Percent Equivalents
 - In this section, you will recognize and express commonly used fractions (halves, thirds, fourths, fifths, eighths, tenths) in decimal form and solve problems involving them.

- In this section, you will recognize and express commonly used fractions (halves, thirds, fourths, fifths, eighths, tenths) in percent form and solve problems involving them.

10. Ordering Fractions and Decimals

- In this section, you will identify the numerical order of a given set of fractions and mixed numbers.
- In this section, you will identify the numerical order of a given set of fractions and decimals.

11. Number Theory and Fractions Apply

12. Number Theory and Fractions Review

13. Number Theory and Fractions Unit Test

8. Add and Subtract Fractions

1. Add and Subtract Fractions Introduction

2. Add with Like Denominators

- In this section, you will add fractions with like denominators.

3. Least Common Multiple

- In this section, you will find the least common multiple of two whole numbers.

4. Add with Unlike Denominators

- In this section, you will add fractions with unlike denominators.

5. Subtract Fractions

- In this section, you will subtract fractions with like denominators.
- In this section, you will subtract fractions with unlike denominators.

6. Add and Subtract Fractions to Solve Problems

- In this section, you will solve real-world problems by adding and subtracting fractions with like and unlike denominators.

7. Add and Subtract Mixed Numbers

- In this section, you will add and subtract mixed numbers in which the denominators are the same.
- In this section, you will add and subtract mixed numbers in which the denominators are not the same.

8. Solve Problems with Mixed Numbers

- In this section, you will solve word problems involving addition and subtraction with mixed numbers in a real-world context.

9. Add and Subtract Fractions Apply

10. Add and Subtract Fractions Review

11. Add and Subtract Fractions Unit Test

Semester B Summary:

In this course, students will learn, practice, and apply the fundamental skills and strategies that will help them grow into strong mathematical thinkers. Daily instruction supports student learning of core math concepts and development of procedural fluency regarding multiplication and division of fractions, expressions, equations, inequalities, area and volume, coordinate geometry and nets, and statistics. Students are encouraged to use visual representations of their thinking to bridge their understanding between the concrete and abstract, allowing patterns and mathematical principles to come to life. Peer Model videos throughout provide illustrations of a peer learning how to use and apply the target mathematical skill using a real-world example. 21st Century instruction further illustrates the connection of mathematical concepts to the real world while supporting students' development of skills, knowledge, and expertise they must master to succeed in life and work. Mathematical discussion prompts encourage students to revise misunderstanding, uncover nuances in application, make connections to prior knowledge,

identify patterns, and engage with vocabulary. Students are encouraged to listen critically, critique the reasoning of others, and justify their own solutions. The courses are designed to support a growth mindset regarding math and encourage students to engage in productive struggle; instructional materials explicitly and frequently remind students that mistakes are opportunities for learning and acquiring new skills. Together the course elements ensure the student grows as a mathematical thinker and masters the skills to succeed in life and work.

Semester B Outline

1. Gifted and Talented Math 6 B Course Overview

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 - There are no objectives for this lesson.

2. Multiply and Divide Fractions

1. Multiply Whole Numbers and Fractions
 - There are no objectives for this lesson.
2. Multiply Two Fractions
 - There are no objectives for this lesson.
3. Multiply Fractions and Mixed Numbers
 - There are no objectives for this lesson.
4. Multiply Fractions to Solve Problems
 - There are no objectives for this lesson.
5. Multiply Fractions to Solve Problems Prompt
 - There are no objectives for this lesson.
6. Quotients of Fractions
 - There are no objectives for this lesson.
7. Divide Fractions and Whole Numbers
 - There are no objectives for this lesson.
8. Divide Fractions to Solve Problems
 - There are no objectives for this lesson.
9. Multiply and Divide Fractions Apply
 - There are no objectives for this lesson.
10. Multiply and Divide Fractions Review
 - There are no objectives for this lesson.
11. Multiply and Divide Fractions Unit Test
 - There are no objectives for this lesson.

3. Expressions

1. Expressions Introduction
 - There are no objectives for this lesson.
2. Numerical Expressions
 - There are no objectives for this lesson.
3. Variable Expressions
 - There are no objectives for this lesson.
4. Evaluate Expressions
 - There are no objectives for this lesson.
5. Translate Expressions
 - There are no objectives for this lesson.
6. Parts of an Expression
 - There are no objectives for this lesson.
7. Use the Order of Operations
 - There are no objectives for this lesson.

8. Properties of Operations
 - There are no objectives for this lesson.
9. Equivalent Expressions
 - There are no objectives for this lesson.
10. Expressions Apply
 - There are no objectives for this lesson.
11. Expressions Review
 - There are no objectives for this lesson.
12. Expressions Unit Test
 - There are no objectives for this lesson.

4. Equations

1. Equations Introduction
 - There are no objectives for this lesson.
2. True Equations
 - There are no objectives for this lesson.
3. Solve Equations By Adding or Subtracting
 - There are no objectives for this lesson.
4. Solve Equations By Dividing
 - There are no objectives for this lesson.
5. Solve Equations By Multiplying
 - There are no objectives for this lesson.
6. Types of Variables in Equations
 - There are no objectives for this lesson.
7. Write Equations
 - There are no objectives for this lesson.
8. Compare Representations
 - There are no objectives for this lesson.
9. Compare Representations Portfolio
 - There are no objectives for this lesson.
10. Equations Apply
 - There are no objectives for this lesson.
11. Equations Review
 - There are no objectives for this lesson.
12. Equations Unit Test
 - There are no objectives for this lesson.

5. Inequalities

1. Inequalities Introduction
 - There are no objectives for this lesson.
2. Solve Inequalities
 - There are no objectives for this lesson.
3. Solutions of Inequalities
 - There are no objectives for this lesson.
4. Write Inequalities to Solve Problems
 - There are no objectives for this lesson.
5. Solve Inequalities By Adding or Subtracting
 - There are no objectives for this lesson.
6. Solve Inequalities By Multiplying or Dividing
 - There are no objectives for this lesson.
7. Inequalities Apply
 - There are no objectives for this lesson.

8. Inequalities Review
 - There are no objectives for this lesson.
9. Inequalities Unit Test
 - There are no objectives for this lesson.
6. **Area and Volume**
 1. Area and Volume Introduction
 - There are no objectives for this lesson.
 2. Area of Rectangles and Right Triangles
 - There are no objectives for this lesson.
 3. Area of Non-right Triangles
 - There are no objectives for this lesson.
 4. Area of Special Quadrilaterals
 - There are no objectives for this lesson.
 5. Area of Polygons
 - There are no objectives for this lesson.
 6. Use Area to Solve Problems
 - There are no objectives for this lesson.
 7. Use Area to Solve Problems Portfolio
 - There are no objectives for this lesson.
 8. Volume of a Right Rectangular Prism
 - There are no objectives for this lesson.
 9. Compare Methods of Finding Volume
 - There are no objectives for this lesson.
 10. Length x Width x Height
 - There are no objectives for this lesson.
 11. Base x Height
 - There are no objectives for this lesson.
 12. Area and Volume Apply
 - There are no objectives for this lesson.
 13. Area and Volume Review
 - There are no objectives for this lesson.
 14. Area and Volume Unit Test
 - There are no objectives for this lesson.
7. **Coordinate Geometry and Nets**
 1. Coordinate Geometry and Nets Introduction
 - There are no objectives for this lesson.
 2. Polygons in the Coordinate Plane
 - There are no objectives for this lesson.
 3. Use Coordinate Geometry to Solve Problems
 - There are no objectives for this lesson.
 4. Nets with Rectangles and Triangles
 - There are no objectives for this lesson.
 5. Surface Area of Rectangular Prisms
 - There are no objectives for this lesson.
 6. Use Nets to Solve Rectangular Problems
 - There are no objectives for this lesson.
 7. Use Nets to Solve Rectangular Problems Prompt
 - There are no objectives for this lesson.
 8. Surface Area of Triangular Prisms
 - There are no objectives for this lesson.

9. Use Nets to Solve Triangular Problems
 - There are no objectives for this lesson.
10. Coordinate Geometry and Nets Apply
 - There are no objectives for this lesson.
11. Coordinate Geometry and Nets Review
 - There are no objectives for this lesson.
12. Coordinate Geometry and Nets Unit Test
 - There are no objectives for this lesson.

8. **Statistics**

1. Statistical Questions
 - There are no objectives for this lesson.
2. Represent Numerical Data
 - There are no objectives for this lesson.
3. Describe Data Sets
 - There are no objectives for this lesson.
4. Measures of Center
 - There are no objectives for this lesson.
5. Measures of Variation
 - There are no objectives for this lesson.
6. Box Plots
 - There are no objectives for this lesson.
7. Mean Absolute Deviation
 - There are no objectives for this lesson.
8. Compare Measures of Variation
 - There are no objectives for this lesson.
9. Analyze Data Shape and Context
 - There are no objectives for this lesson.
10. Statistics Apply
 - There are no objectives for this lesson.
11. Statistics Review
 - There are no objectives for this lesson.
12. Statistics Unit Test
 - There are no objectives for this lesson.

