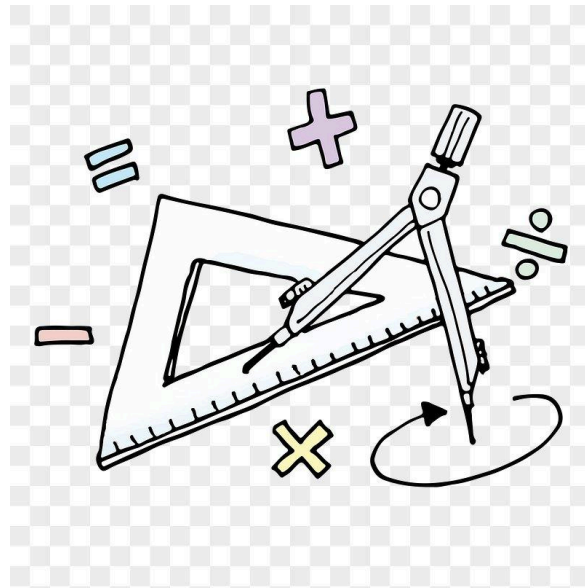


Bridgeport Elementary School

6th Grade Math Syllabus



Part 1: Course Information

Instructor: Mindy Langford

School Telephone: 423-623-5780

School Email: mcmahanm@cocke.k12.tn.us

Course Description

The six grade math curriculum is based on the Tennessee State Standards. This course will prepare students for the 6th grade TN Ready math assessment given in the spring of 2024. I will provide a balance of opportunities for student learning that include the textbook, technology, and group/partner work.

Students in this course will study the following domains:

- Expressions and Equations
- Decimals and Fractions
- Ratio Reasoning
- Algebraic Thinking
- Positive and Negative Numbers
- Statistical Thinking

Textbook & Course Materials

Required Text: I-Ready Classroom Grade 6 Volume 1/I-Ready Classroom Grade 6
Volume 2

Recommended Resources: i-Ready online program, Edulastic, and Mastery Connect

Course Requirements: Internet Connection

Access to a Chromebook or Tablet

Be Respectful

Come to class prepared. 😊

Course Structure:

In math class, the students will learn in a variety of ways. We will start with a discussion of what is to be learned. From there we will move on to modeling with discussion and note taking. Students will then work on guided practice as I will circulate and monitor their work. After practice, they will continue to work either individually, in a group, with partners, or in a small group with the teacher.

Online Resources:

Link to 6th Grade Standards

https://www.tn.gov/content/dam/tn/education/standards/math/Standards_Support_grade_6_Mathematics.pdf

Mastery Connect accessed through Clever

Edulastic accessed through Clever

i-Ready Online Program accessed through Clever

Part 2: Student Learning Outcomes

Expressions and Equations - Area, Algebraic Expressions, and Exponents

- You can use what you know about the area of a rectangle to find the area of other two-dimensional figures and to find the surface area of three-dimensional figures.
- You can use what you know about writing, interpreting, and evaluating numerical expressions to understand how to work with algebraic expressions.
- You can apply your understanding of multiplication to evaluate expressions that include exponents and to find the greatest common factor and the least common multiple of two whole numbers.

Decimals and Fractions - Base-Ten Operations, Division with Fractions, and Volume

- Knowing about place value and operations with whole numbers will help you understand how to add, subtract, multiply, and divide with decimals.
- You can use what you know about area models and partial quotients to make sense of an algorithm for dividing whole numbers and decimals.
- Division of fractions and mixed numbers can be thought of as forming equal groups to find the number or size of the groups. Knowing the relationship between multiplication and division will help you divide with fractions.

Ratio Reasoning - Ratio Concepts, Equivalent Ratios, Unit Rates, and Percents

- A ratio is a way to compare two quantities when there are a units of one quantity for every b units of the other.
- Equivalent ratios make the same comparison. You can use what you know about multiples and factors to find equivalent ratios.
- Reasoning about equivalent ratios can help you find the amount of one quantity when you know the amount of the other quantity.
- A rate is a ratio that tells how many units of one quantity there are for every 1 unit of a second quantity. Knowing about rates can help you solve problems involving equivalent ratios.
- You can use a unit rate to find the amount of one quantity in a ratio relationship when you know the amount of the other quantity.
- A percent is a way of expressing a rate per 100. You can use what you know about

ratios and rates to solve problems about percentages.

Algebraic Thinking - Equivalent Expressions and Equations with Variables

- Writing expressions in different, but equivalent, forms can help you make sense of problems.
- You can perform the same operation on both sides of an equation and the two sides will still be equal.
- Solving an equation means finding a value of the variable that makes the equation true. You can use what you know about inverse operations to help you solve equations.
- Knowing about patterns can help you describe how two quantities vary with each other.

Positive and Negative Numbers - Absolute Value, Inequalities, and the Coordinate Plane

- You can use positive and negative numbers to describe quantities with opposite values. Every positive number has both a distance and a direction from 0. A number's distance from 0 is called its absolute value.
- You can extend the number line to show and compare positive and negative rational numbers or their absolute values.
- An inequality with a variable can have infinitely many solutions. You can show the solutions on a number line.
- You can extend the coordinate plane to plot points with negative coordinates. Knowing about absolute value can help you find the distance between points.

Statistical Thinking - Data Distributions and Measures of Center and Variability

- Understanding data distributions can help you answer statistical questions. The data you collect to answer a statistical question are likely to vary.
- You can use what you know about the number line to organize a set of data. Graphs based on the number line can help you make sense of the data.
- You can summarize a data set by using a single number to describe a typical value and a single number to describe how spread out the data are.
- The measures you use to describe a data set depend on the statistical question you are trying to answer and on the characteristics of the data set.

Part 3: Topic Outline/Schedule

1st 9 Weeks

Unit 1: Expressions and Equations

- Find the Area of a Parallelogram
- Find the Area of Triangles and Other Polygons
- Use Nets to Find Surface Area
- Work with Algebraic Expressions
- Write and Evaluate Expressions with Exponents
- Find Greatest Common Factor and Least Common Multiple
- Math in Action: Area, Surface Area, and Algebraic Expressions

Unit 2: Decimals and Fractions

- Add, Subtract, and Multiply Multi-Digit Decimals
- Divide Whole Numbers and Multi-Digit Decimals
- Understand Division with Fractions
- Divide Fractions
- Solve Volume Problems with Fractions
- Math in Action: Volume and Operations with Decimals and Fractions

Unit 3: Ratio Reasoning

- Understand Ratio Concepts
- Find Equivalent Ratios
- Math in Action: Use Part-to-Part and Part-to-Whole Ratios

2nd 9 Weeks

Unit 4: Ratio Reasoning

- Understand Rate Concepts
- Use Unit Rates to Solve Problems
- Understand Percents
- Use Percents to Solve Problems
- Math in Action: Rates, Unit Rates, and Percents

Unit 5: Algebraic Thinking

- Write and Identify Equivalent Expressions
- Understand Solutions of Equations
- Write and Solve One-Variable Equations
- Analyze Two-Variable Relationships
- Math in Action: Expressions and Equations

3rd 9 Weeks

- Continue Unit 5 to Completion

Unit 6: Positive and Negative Numbers

- Understand Positive and Negative Numbers
- Order Positive and Negative Numbers
- Understand Absolute Value
- Write and Graph One-Variable Inequalities
- Understand the Four-Quadrant Coordinate Plane
- Solve Problems in the Coordinate Plane
- Math in Action: Negative Numbers, Inequalities, and the Coordinate Plane

Unit 7: Statistical Thinking

- Understand Statistical Questions and Data Distributions
- Use Dot Plots and Histograms to Describe Data Distributions
- Interpret Median and Interquartile Range in Box Plots
- Interpret Mean and Mean Absolute Deviation
- Use Measures of Center and Variability to Summarize Data
- Math in Action: Statistical Questions and Measures of Center and Variability

4th 9 Weeks

- Continue with Unit 7 to Completion
- Review
- TN Ready Test

Part 4: Grading Policy

Graded Course Activities

Assignments

Each nine weeks graded material will be composed of iReady Comprehensive Checks, daily assignments, weekly quizzes, and unit tests.

Late or Make-Up Work Policy

You should make-up for missed work as soon as you return to school. You will have three school days to complete make-up work. Keep in mind that, you know I will take that assignment as long as it is in a reasonable amount of time.

Letter Grade Assignment

Final grades assigned for this course will be based on the percentage of total points earned and are assigned as follows:

Letter Grade	Percentage
A	90% - 100%
B	80% - 89%
C	70% - 79%
D	60% - 69%
F	0 - 59%

Part 5: Course Policies

Attendance

Attendance is important for a passing math score. Remember, the curriculum moves pretty quickly and it is easy to get behind if you start missing too many days.

Participation

Students will receive a participation grade each 9 weeks as a part of their overall grade. Participation will be based on willingness to participate in classroom activities, discussions, group/partner activities, and online practice assignments.