Class Syllabus

Instructor	Kimberly Moody
Subject	Math
Grade	6th
School	Centerview Elementary School

Course Outcomes

In grade 6:

- Students will learn that a ratio is a multiplicative comparison of two quantities within a given situation.
- Students will build on prior knowledge of ratios and equivalent fractions to conceptually understand rate and unit rate.
- Students will expand their understanding of multiplication and division from earlier grades to solve a variety of ratio and rate problems.
- Students will create ratio tables observing the multiplicative relationships between quantities and noticing that the values of equivalent ratios are equal.

- Students should see equivalent ratios as coordinated that can be plotted on a coordinate plane.
- Students will work with operations on fractions by computing quotients of fractions involving division of fractions by fractions.
- Students are introduced to the standard algorithm and are expected to divide fluently with multi-digit whole numbers for the first time.
- Students will also be asked to find missing digits in a quotient, partial quotient, dividend or divisor.
- Students will add, subtract, multiply and divide with multi-digit decimals abstractly with the use of algorithms.
- Students will find the greatest common factor(GCF) of two whole numbers less than or equal to 100 and the least common multiple (LCM) of two whole numbers less than or equal to 12.
- Students will explore factoring to generate numerical expressions equivalent to the sum of two numbers.
- Students will extend their learning to use integers to represent real-world situations and explain the meaning of 0 in these situations.
- Students will describe positive and negative numbers as indicating opposite directions relative to 0 on the number line.
- Students will extend their understanding of locating points on a number line and transfer this knowledge to vertical and horizontal number lines to be able to plot points in all four quadrants of the coordinate plane.
- Students will gain an understanding the ordering and the absolute value of rational numbers and comparing them using <, >, or =.
- Students will locate and graph points in all four quadrants in the coordinate plane and use them to draw horizontal and vertical line segments.
- Students are expected to find the lengths of vertical and horizontal lines to solve real-world problems related to distance, segments and shapes.
- Students will write and evaluate expressions which contain positive rational numbers (including positive fractions and decimals).
- Students will be introduced to exponents, first with whole numbers, and then will move on to fractions and decimals.
- Students will use the order of operations and/or properties of operations to determine a proper sequence of steps for evaluation expressions, including parentheses, brackets, braces, and multiple sets of parentheses.
- Students will be able to understand that a letter (variable) in an expression represents a number and when that letter is replaced with a number (substitution), the expression's value can be determined.
- Students will be able to identify parts of an expression and accurately use mathematical terms such as constant, coefficient, variable, base, exponent, quantity, sum, difference, product, factor, quotient, and term when describing the expression.
- Students will evaluate expressions including those that arise from formulas.

- Students will understand that two or more expressions may be equivalent, even when their symbolic forms are different.
- Students will begin developing the understanding of combining like terms with the distributive property.
- Students will learn that an equation is a mathematical statement formed by setting two expressions equal to each other and that an inequality is a set of two expressions is greater than (or greater that or equal to) the other.
- Students will learn that a solution to an algebraic equation is the value(s) that make the statement true.
- Students will be able to interpret and write inequalities in the given forms to represent a constraint or condition in a real-world or mathematical situation. They will also graph inequalities on a number line using a open circle or a closed circle depending on the inequality sign given.
- Students will begin developing a conceptual understanding of using variables to represent quantiles in real-world situations.
- Students will use their knowledge of finding the area of a rectangle to decompose a rectangle into two right triangles to discover that the area of a right triangle is half the area of a rectangle.
- Students will find the volume a right rectangular prism using fractional side lengths.
- Students will begin to explore polygons that are graphed in the coordinate plane with sides that are either vertical or horizontal. This connects to using absolute value to find the distance between two points with either the same x or y coordinate.
- Students will use their prior knowledge of the area of two-dimensional figures to finding the surface area of three-dimensional figures.
- Students will be presented with examples of statistical and non-statistical questions to think of possible answers to the questions. Students will learn the concept of variability in data and know that not all data values will be the same for a statistical question.
- Students will learn to display numerical data using several types of graphs, including box plots and stem plots. They will describe data using measures of center (mean, median, and mode), the measure of variability (range) and the overall shape, and expand this knowledge to include dot plots, box plots, pie charts, stem plots, and histograms.

6th grade Math Instructional Focus Documents:

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

Tennessee State Standards for Math

- https://bestforall-cms.tnedu.gov/sites/default/files/documents/G6_9-24-21.pdf

Cocke County School System Website
http://www.cockecountyschools.org

Instruction

- **Topics/Competencies/Skills Covered**
    - Ratios and Proportional Relationships
    - The Number System
    - Expressions and Equations
    - Geometry
    - Statistics and Probability
- **General Pacing**

1st nine weeks	2nd nine weeks	3rd nine weeks	4th nine weeks
Expressions and Equations: ● Area, Algebraic Expressions, and Exponents Decimals and Fractions: ● Base-Ten operations, Division with Fractions, and Volume	Ratio Reasoning: ● Ratio Concepts and Equivalent Ratios ● Unit Rates and Percent	Algebraic Thinking: ● Equivalent Expressions and Equations with Variables Positive and Negative Numbers: ● Absolute Value, Inequalities, and the Coordinate Plane Statistical Thinking: ● Data Distributions and Measures of Center and Variability	● Review ● TN Ready Testing

- **Materials needed for the class**
    - iReady Textbook
    - iReady Fluency and Skills Workbook

- Chromebook
- Paper/pencil/three-ring binder

- Tutoring is offered before school from 7:30 – 8:15 with Ms. Lindsey in room 106 or the students can knock on the outside door #03.

Assessment and Grading

Grading Policy:

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

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

Grades for this course are weighted as follows:

- Tests 40%
- Classwork 30%
- Quizzes 30%,

● Make-up/Late work Policy: Students are required to check the absentee folder for any assignments they missed while absent. Make-up work is to be made up within two days of returning to school.

- Grade Posting Policy – Grades will be updated in Aspen on a weekly basis. Students and parents have access to see these at any time. Progress reports are sent home each $4\frac{1}{2}$ weeks.

- My Path – Students will be expected to log into their myPath for at least 30 minutes per week.

General Expectations

- Students
  - Attendance Policy:
    - https://cockecountyschools.org/departments/attendance/
  - Classroom Policy/Procedures/Discipline:
    - Come to class prepared (pencil, chromebook, binder, homework)

        - Be respectful to others
        - Use polite and appropriate language
        - Arrive to class on time and be ready to learn
        - Try your best

    *Misbehaviors will be dealt with as needed. A demerit system is in place for students. Consequences for infractions include lunch detention, loss of a privilege, parent conference, office referral.

    - Teachers:
        - Email @ moodyk@cocke.k12.tn.us
        - Parent Square
    - Office hours: 8:00am – 3:45 pm

Plagiarism

- Include plagiarism regarding generative AI (see board policy)
- Include this statement and everything below it:
    - According to Harbrace Handbook, 15th edition: Plagiarism is defined as "presenting someone else's ideas, research, or opinions as your own without proper documentation, even if it has been rephrased."
- This includes but is not limited to:
    - Copying verbatim all or part of another's written work;
    - Using phrases, figures, or illustrations without citing the source;
    - Paraphrasing ideas, conclusions, or research without citing the source;
    - Using all or part of a literary plot, poem, or film without attributing the work to its creator.
- Consequences of Plagiarism
    - Plagiarism is a form of stealing and academic fraud. Students who are found guilty of plagiarism have the option of either redoing the assignment within a specified time

period and accept a letter drop or taking a zero on the assignment. Parents are to be involved in making this decision.

Religion in the Classroom

The Board affirms that it is essential that the teaching about religion - and not of a religion be conducted in a factual, objective, and respectful manner in accordance with the following guidelines:

- Religious themes may be a part of the curriculum for school-sponsored activities and programs provided it is essential to the learning experience in the various fields of study and is presented objectively;
- The inclusion of religion shall be for educational purposes only;[1]
- The emphasis on religious themes should be only as extensive as necessary for a balanced and comprehensive study of the curriculum. Such studies shall never be used to proselytize, establish, foster, or demean any particular religion, religious tenets, or beliefs; and[1]
- Student-initiated expressions to questions or assignments which reflect their beliefs or non-beliefs about a religious theme shall be accommodated.