MATH 7 Course Syllabus
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First Trimester

Introduction & Probability (4 weeks)   Aug-Sept
Review shared and unique characteristics when determining unknowns. Investigating proportional relationships and number patterns are introduced to help students write equations. Introduction to probability. Students work with fractions, decimals and percents as well as addition of fractions.

Assessments: chapter 1 test

Fractions & Integer Addition (3 weeks)   Sept-Oct
Students will compose integers and rational numbers as well as investigate the process of using the order of operations (addition & multiplication) with the real number system including portions and mixed numbers. Use data to decide graph scaling.

Assessment: chapter 2 test

Arithmetic Properties (3 weeks)   Oct-Nov
Continue to work with integers, expressions and terms as well as investigate the process of using the order of operations (subtraction & division) with the real number system including decimals and other rational numbers.

Assessments: Quiz, chapter 3 test and benchmark

Second Trimester

Proportions & Expressions (4 weeks)   Nov-Dec
Making connections between similar figures and recognize proportional relationships by using tables and graphs. Introduced to combining like terms, the distributive property and simplifying with zero while working towards solving equations.

Assessments: Quiz and chapter 4 test

Probability & Solving Word Problems (5 weeks)   Jan - Feb
Extended their knowledge of probability. Students investigate the part-whole relationships. Probability is investigated further through simulations. Independent and compound events are introduced. Percentages are found and used with real-life problems. Introduced to using variables to represent quantities within word problems. The strategies of the 5D process (guess and check) is used. End of volume 1.

Assessments: Quiz and chapter 5 test & Checkpoint/Midterm

<u>Solving Inequalities & Equations (4 weeks)   Feb - March</u>
Students write and solve one variable linear inequalities and equations using multiple methods: graphing or tables as they consolidate all their equation solving skills from the beginning of the course. Introduced to infinite and no solution type of equations. Focus on recording their work and choosing strategies to solve problems.

Assessments: Quiz, chapter 6 test and benchmark

Third Trimester

<u>Proportions & Percents (3 weeks)   March</u>
Students use distance, rate and time to investigate proportional relationships. They solve problems involving percents and work with the conversions of equations that have fractional/decimal coefficients to integers. Percent increase, decrease and simple interest problems are introduced. Solving proportions by finding the values of the missing parts.

Assessments: Quiz and chapter 7 test

<u>Statistics & Angle Relationships (3 weeks)   April</u>
Comparisons of distributions and measurement precision is introduced. Students see the differences between representative and random samples of data. Introduced to angles and how they are classified, are used for constructing shapes and building triangles.

Assessments: Quiz and chapter 8 test

<u>Circles & Volumes (4 weeks)   April - May</u>
Review of circumference, diameter and pi are extended. In addition to the area of circles being further investigated, composite shapes are now introduced. Surface area and volume are also introduced with cross sections of shapes as well as rectangular and non-rectangular prisms. The use of applying ratios to shapes will lead into students next course and proportional relationships.

Assessments: Quiz and chapter 9 test

<u>Puzzle Investigator Problem Projects (2 weeks)   May</u>
Students formalize concepts of functions and relations.

Assessment: Presentations. STAR review & STAR testing

<u>Math 8 Preview & Review (1 week)   June</u>
Connections of the Algebraic & Geometric applications to come in 8th grade.

Assessment: Math8 Readiness Test