7th Grade Math-Grade Level
2022-23 Year at a Glance (YAG)

First Semester		Second Semester	
1st Nine Weeks – 41 days (August 15th – October 12th) *(September 5th – No School)* *(October 10th – No School)*		**3rd Nine Weeks – 47 days** (January 3rd – March 10th) *(January 18th – No School)* *(February 20th – PD Day)* *(March 13th – 17th – Spring Break)* *(March 20th – Teacher Workday)*	
TEKS		**TEKS**	
7.2A, 7.3A, **7.3B**,	**Rational Numbers & Operations (13 days)** Students use a visual representation to organize and display the relationship of the sets and subsets of rational numbers. Students are expected to fluently add, subtract, multiply, and divide various forms of positive and negative rational numbers that include integers, decimals, fractions, and percents converted to equivalent decimals or fractions.	7.10A, 7.10B, 7.10C, **7.11A**, 7.11B, 7.11C,	**Solving Equations & Inequalities, and Angle Relationships (20 days)** Students model and solve one-variable, two-step equations and inequalities with concrete and pictorial models and algebraic representations. Solutions to equations and inequalities are represented on number lines and given values are used to determine if they make an equation or inequality true. Students are expected to write an equation or inequality to represent conditions or constraints within a problem and then, conversely, when given an equation or inequality out of context, students are expected to write a corresponding real-world problem to represent the equation or inequality. Students write and solve equations using geometric concepts, including the sum of the angles in a triangle, complementary angles, supplementary angles, straight angles, adjacent angles, and vertical angles.
7.5A, 7.5B, 7.8C, **7.9B**, **7.9C**	**Circles & Composite Figures (13 days)** Students use models to determine the approximate formulas for the circumference and area of a circle. Students use the relationships from models to connect to the actual formulas for the circumference and area of a circle and apply these formulas to solve problems involving the circumference and area of circles. Students extend previous knowledge of the area of rectangles, parallelograms, trapezoids, and triangles along with the new understandings of the circumference and area of circles to solve problems involving area of composite figures that consist of rectangles, triangles, parallelograms, squares, quarter circles, semicircles, and trapezoids.	7.4A, 7.4C, **7.7A**	**Linear Relationships (20 days)** Students use data with two variables, to reexamine constant rates of change and extend their understanding of the constant of proportionality. Students are formally introduced to the slope intercept form of equations, $y = mx + b$, to represent linear relationships. Students are expected to relate the constant rate of change to m, and the y-coordinate, when the x-coordinate is zero, to b in equations that simplify to the form $y = mx + b$. Students represent linear relationships using verbal descriptions, tables, graphs, and equations that simplify to the form $y = mx + b$.
7.9D	**Surface Area (10 days)** Students solve problems involving the lateral and total surface area of a rectangular prism, rectangular pyramid, triangular prism, and triangular pyramid by determining the area of the shape's net.		**Interim Assessments (4 Days)** **Buffer time (3 Days)**
	Beginning of the School Year (1 Day) **BOY Screener (2 Days)** **Buffer time (2 Days)**		Each unit continues to emphasize the use of rational numbers while building up to solving multistep equations. These units are foundational to Algebra concepts with an emphasis on linear relationships specifically in slope-intercept form.
	All units emphasize the use of rational numbers and their subsets while building up to solving multistep equations with the use of formulas through Geometry concepts.		

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2nd Nine Weeks – 42 days (October 13th – December 16st) *(November 21st – 25th – Thanksgiving Break)* *(December 19th – January 1st – Holiday Break)* *(January 2nd – Teacher Workday)*		**4th Nine Weeks – 45 days** (March 21st – May 24th) *(April 7th – No School)* (*April 28th – No School)*	
TEKS 7.8A, 7.8B, **7.9A**	**Volume (10 Days)** Students model the relationship between the volume of a rectangular prism and a rectangular pyramid having both congruent bases and heights as well as connect that relationship to their respective formulas. Students solve problems involving volume, including the volume of rectangular prisms, triangular prisms, rectangular pyramids, and triangular pyramids.	**TEKS** 7.6A, 7.6B, 7.6C, 7.6D, 7.6E, 7.6F, 7.6G, **7.6H**, **7.6I**, 7.12A, 7.12B, 7.12C	**Categorical Data & Probability (16 days)** Students use various representations, including lists, tree diagrams, and tables to represent the sample spaces for simple and compound events. Compound events are inclusive of both independent events and dependent events. Students are expected to distinguish between theoretical and experimental data and find the probabilities of a simple event. Students analyze and describe the relationship between the probability of a simple event and its complement. Data from experiments, experimental data, theoretical probability, and random samples are used to make qualitative and quantitative inferences about a population.
7.4A, 7.4B, 7.4C, **7.4D**, 7.4E 7.5A, 7.5C	**Proportional Reasoning with Ratios and Rates, and Measurement and Similarity in Geometry (25 Days)** Students are expected to represent and examine proportional reasoning through constant rates of change given pictorial, tabular, verbal, numeric, graphical, and algebraic representations. Exploring the relationship between distance, rate, and time allows students to generalize the effects when rates within any problem situation are changed. They also calculate unit rates from rates and determine the constant of proportionality in mathematical and real-world problems. Students use proportions and unit rates as they extend previous understandings of converting units within a measurement system to now include converting units between both customary and metric measurement systems. **MOY Screener (2 Days)** **Final Exams (2 Days)** **Buffer time (3 Days)** All units continue to emphasize the use of rational numbers while building up to solving multistep equations with the use of formulas through Geometry concepts, and Algebraic reasoning skills to set up and solve proportional relationship problems in mathematical and real world scenarios.	7.4D, 7.13A, **7.13B**, 7.13C 7.13D, **7.13E**, 7.13F All TEKS	**Applications of percents & Financial Literacy (13 days)** Students solve problems involving ratios, rates, and percentages. Computations with percentages are now inclusive of solving problems involving percent increase, percent decrease, and financial literacy. Students also create and organize a financial assets and liabilities record, construct a net worth statement, calculate sales tax for a given purchase, and calculate income tax for earned wages. Equations and inequalities are extended to include problem situations involving monetary incentives such as sales, rebates, or coupons. Financial literacy aspects such as calculating and comparing simple and compound interest as well as utilizing a family budget estimator to determine the minimum household budget needed for a family to meet its basic needs is also explored. **STAAR Review (10 Days)** **EOY Screener (2 Days)** **Final Exams (2 Days)** **STAAR Testing (2 Days)** Each unit builds on algebraic equations solving concepts and rules, including the use of formulas, and proportional relationships concepts.. In addition the Personal Financial Literacy unit introduces important financial literacy concepts to help students build a baseline for financial planning. STAAR review time will provide an opportunity for students to revisit material learned in the beginning of the year.

Process Standards: 7.1A, 7.1B, 7.1C, 7.1D, 7.1E, 7.1F, 7.1G

The process standards describe ways in which students are expected to engage in the content. The process standards weave the other knowledge and skills together so that students may be successful problem solvers and use mathematics efficiently and effectively in daily life. When possible, students will apply mathematics to problems arising in everyday life, society, and the workplace.

**All days on units are estimated lengths of time and are subject to change.