

Cycle 1	27 Days	<i>The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.</i>
Aug. 23 - Oct. 1, 2021		
Unit	# Class Periods	<p align="center">Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</p> <p>The bold face words in the TEKS/SEs indicate concepts addressed specifically in this unit; the unbolded concepts are addressed in other units of this course.</p> <p>The student will:</p>
		<p><i>The Mathematical Process Standards are integrated throughout the course in all activities and lessons. Teachers should refer to these standards for instructional strategies and depth of rigor. Specific process standards have been highlighted to each unit, but these process standards should not be the only process standards associated with the daily lessons.</i></p> <p>Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <p>Ⓟ MATH.7.1A/Ⓟ MATH.8.1A Apply mathematics to problems arising in everyday life, society, and the workplace.</p> <p>Ⓟ MATH. 7.1B/Ⓟ MATH.8.1B Use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution.</p> <p>Ⓟ MATH. 7.1C/Ⓟ MATH.8.1C Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems.</p> <p>Ⓟ MATH. 7.1D/Ⓟ MATH.8.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate.</p> <p>Ⓟ MATH. 7.1E/Ⓟ MATH.8.1E Create and use representations to organize, record, and communicate mathematical ideas.</p> <p>Ⓟ MATH. 7.1F/Ⓟ MATH.8.1F Analyze mathematical relationships to connect and communicate mathematical ideas.</p> <p>Ⓟ MATH. 7.1G/Ⓟ MATH.8.1G Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.</p>

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Unit 1: Personal Financial Literacy Students apply financial literacy concepts to calculate personal budget items such as savings, taxes, and interest earnings.	2 class periods (90-min. each) or 4 class periods (45-min. each) <i>Enrichment Opportunities</i> Aug. 2-13 <i>Teachers Report to Work</i> Aug. 16 <i>Teacher Service Days</i> Aug. 16-17, Aug. 19-20 <i>Teacher Prep Day</i> (no students) Aug. 18 <i>Labor Day</i> Sept. 6 <i>Fall Holiday</i> Sept. 16 <i>Teacher Service Day</i> (no students) Sept. 17	Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to: Ⓡ MATH.7.1A/Ⓡ MATH.8.1A Apply mathematics to problems arising in everyday life, society, and the workplace. Ⓡ MATH.7.1B/Ⓡ MATH.8.1B Use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution. Number and operations. The student applies mathematical process standards to add, subtract, multiply, and divide while solving problems and justifying solutions. The student is expected to: Ⓢ MATH.7.3A Add, subtract, multiply, and divide rational numbers fluently. Ⓢ MATH.7.3B Apply and extend previous understandings of operations to solve problems using addition, subtraction, multiplication, and division of rational numbers. Personal financial literacy. The student applies mathematical process standards to develop an economic way of thinking and problem solving useful in one's life as a knowledgeable consumer and investor. The student is expected to: Ⓢ MATH.7.13A Calculate the sales tax for a given purchase and calculate income tax for earned wages. Ⓢ MATH.7.13B Identify the components of a personal budget, including income; planned savings for college, retirement, and emergencies; taxes; and fixed and variable expenses, and calculate what percentage each category comprises of the total budget. Ⓢ MATH.7.13C Create and organize a financial assets and liabilities record and construct a net worth statement. Ⓢ MATH.7.13D Use a family budget estimator to determine the minimum household budget and average hourly wage needed for a family to meet its basic needs in the student's city or another large city nearby. Ⓢ MATH.7.13E Calculate and compare simple interest and compound interest earnings.

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		Ⓢ MATH.7.13F Analyze and compare monetary incentives, including sales, rebates, and coupons.
Unit 2: Real Numbers including Scientific Notation Students focus on the set of real numbers and its various subsets, including integers and rational numbers. Students convert between standard notation and scientific notation, as well as approximate the value of irrational numbers and locate those values on a number line.	2 class periods (90-min. each) or 4 class periods (45-min. each)	Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to: Ⓢ MATH.7.1A /Ⓢ MATH.8.1A Apply mathematics to problems arising in everyday life, society, and the workplace. Ⓢ MATH.7.1E /Ⓢ MATH.8.1E Create and use representations to organize, record, and communicate mathematical ideas. Number and operations. The student applies mathematical process standards to represent and use rational numbers in a variety of forms. The student is expected to: Ⓢ MATH.7.2A /Ⓢ MATH.8.2A Extend previous knowledge of sets and subsets using a visual representation to describe relationships between sets of rational numbers. Ⓢ MATH.8.2B Approximate the value of an irrational number, including π and square roots of numbers less than 225, and locate that rational number approximation on a number line. Ⓢ MATH.8.2C Convert between standard decimal notation and scientific notation. Ⓢ MATH.8.2D Order a set of real numbers arising from mathematical and real-world contexts.

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<p>Unit 3: Properties of Expressions, Equations, and Inequalities Students learn the properties of real numbers, including the distributive property of multiplication over addition, and use those properties to simplify expressions, equations, and inequalities.</p>	<p>3 class periods (90-min. each) or 6 class periods (45-min. each)</p>	<p>Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <p>Ⓢ MATH.7.1C/Ⓢ MATH.8.1C Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems.</p> <p>Ⓢ MATH.7.1G/Ⓢ MATH.8.1G Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.</p> <p>Number and operations. The student applies mathematical process standards to add, subtract, multiply, and divide while solving problems and justifying solutions. The student is expected to:</p> <p>Ⓢ MATH.7.3A Add, subtract, multiply, and divide rational numbers fluently.</p> <p>Ⓢ MATH.7.3B Apply and extend previous understandings of operations to solve problems using addition, subtraction, multiplication, and division of rational numbers.</p> <p>Expressions, Equations, and Relationships. The student applies mathematical process standards to use one-variable equations and inequalities to represent situations. The student is expected to:</p> <p>Ⓢ MATH.7.10A Write one-variable, two-step equations and inequalities to represent constraints or conditions within problems.</p> <p>Ⓢ MATH.7.10B Represent solutions for one-variables, two-step equations, and inequalities on number lines.</p> <p>Ⓢ MATH.7.10C Write a corresponding real-world problem given a one-variable, two-step equation or inequality.</p> <p>Expressions, Equations, and Relationships. The student applies mathematical process standards to solve one-variable equations and inequalities. The student is expected to:</p> <p>Ⓢ MATH.7.11A Model and solve one-variable, two-step equations and inequalities.</p> <p>Ⓢ MATH.7.11B Determine if the given value(s) make(s) one-variable, two-step equations and inequalities true.</p>

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<p>Unit 4: One-Variable Equations and Inequalities and their Applications Students model, write, and solve multi-step equations and inequalities in application situations using mathematical properties and operations.</p>	<p>4 class periods (90-min. each) or 8 class periods (45-min. each)</p>	<p>Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <p>Ⓟ MATH.7.1B/8.1B Use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution.</p> <p>Ⓟ MATH.7.1D/Ⓟ MATH.8.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate.</p> <p>Number and operations. The student applies mathematical process standards to add, subtract, multiply, and divide while solving problems and justifying solutions. The student is expected to:</p> <p>Ⓢ MATH.7.3A Add, subtract, multiply, and divide rational numbers fluently.</p> <p>Ⓢ MATH.7.3B Apply and extend previous understandings of operations to solve problems.</p> <p>Expressions, Equations, and Relationships. The student applies mathematical process standards to solve one-variable equations and inequalities. The student is expected to:</p> <p>Ⓢ MATH.7.11A Model and solve one-variable, two-step equations and inequalities.</p> <p>Ⓢ MATH.7.11B Determine if the given value(s) make(s) one-variable, two-step equations and inequalities true.</p> <p>Expressions, Equations, and Relationships. The student applies mathematical process standards to use one-variable equations or inequalities in problem situations. The student is expected to:</p> <p>Ⓢ MATH.8.8A Write one-variable equations or inequalities with variables on both sides that represent problems using rational number coefficients and constants.</p> <p>Ⓢ MATH.8.8B Write a corresponding real-world problem when given a one-variable equation or inequality with variables on both sides of the equal sign using rational number coefficients and constants.</p> <p>Ⓢ MATH.8.8C Model and solve one-variable equations with variables on both sides of the equal sign that represent mathematical and real-world problems using rational number coefficients and constants.</p>

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	Oct. 5 - Nov. 12, 2021	
Unit	# Class Periods	<p>Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</p> <p>The bold face words in the TEKS/SEs indicate concepts addressed specifically in this unit; the unbolded concepts are addressed in other units of this course.</p> <p>The student will:</p>
<p>Unit 5: Angles, Triangles, and Transversal Relationships Students use informal arguments to connect mathematical relationships about angles, triangles, parallel lines, and transversals.</p>	<p>4 class periods (90-min. each) or 8 class periods (45-min. each)</p> <p><i>Teacher Service Day (no students) Oct. 4</i></p>	<p>Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <p>Ⓟ MATH.7.1B/Ⓟ MATH.8.1B Use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution.</p> <p>Ⓟ MATH.7.1F/Ⓟ MATH.8.1F Analyze mathematical relationships to connect and communicate mathematical ideas.</p> <p>Expressions, Equations, and Relationships. The student applies mathematical process standards to solve one-variable equations and inequalities. The student is expected to:</p> <p>Ⓢ MATH.7.11C Write and solve equations using geometry concepts, including the sum of the angles in a triangle, and angle relationships.</p> <p>Expressions, Equations, and Relationships. The student applies mathematical process standards to use one-variable equations or inequalities in problem situations. The student is expected to:</p> <p>Ⓢ MATH.8.8D Use informal arguments to establish facts about the angle sum and exterior angle of triangles, about the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles.</p>
<p>Unit 6: Pythagorean Theorem Students use squares, square roots, and irrational numbers in models and diagrams to explain the Pythagorean theorem. They also use the Pythagorean theorem and its converse to solve problems.</p>	<p>3 class periods (90-min. each) or 6 class periods (45-min. each)</p>	<p>Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <p>Ⓟ MATH.7.1C/Ⓟ MATH.8.1C Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems.</p> <p>Ⓟ MATH.7.1F/Ⓟ MATH.8.1F Analyze mathematical relationships to connect and communicate mathematical ideas.</p> <p>Numbers and Operations. The student applies mathematical process standards to represent and use real numbers in a variety of forms. The student is expected to:</p>

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		<p>Ⓢ MATH.8.2B Approximate the value of an irrational number, including π and square roots of numbers less than 225, and locate that rational number approximation on a number line.</p> <p>Expressions, Equations, and Relationships. The student applies mathematical process standards to develop mathematical relationships and make connections to geometric formulas. The student is expected to:</p> <p>Ⓢ MATH.8.6C Use models and diagrams to explain the Pythagorean theorem.</p> <p>Expressions, Equations, and Relationships. The student applies mathematical process standards to use geometry to solve problems. The student is expected to:</p> <p>Ⓡ MATH.8.7C Use the Pythagorean theorem and its converse to solve problems.</p> <p>Ⓢ MATH.8.7D Determine the distance between two points on a coordinate plane using the Pythagorean theorem.</p>
<p>Unit 7: Composite Figures and Surface Area Students determine the area of composite figures and make concrete connections to formulas for lateral and total surface area as well as apply those formulas to solve problems in mathematical and real-world situations.</p>	<p>4 class periods (90-min. each) or 8 class periods (45-min. each)</p>	<p>Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <p>Ⓢ MATH.7.1C/Ⓢ MATH.8.1C Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems.</p> <p>Ⓢ MATH.7.1F/Ⓢ MATH.8.1F Analyze mathematical relationships to connect and communicate mathematical ideas.</p> <p>Proportionality. The student applies mathematical process standards to use geometry to describe or solve problems involving proportional relationships. The student is expected to:</p> <p>Ⓢ MATH.7.5B Describe π as the ratio of the circumference of a circle to its diameter.</p> <p>Expressions, Equations, and Relationships. The student applies mathematical process standards to develop geometric relationships with volume. The student is expected to:</p>

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		<p>MATH.7.8C Use models to determine the approximate formulas for the circumference and area of a circle and connect the models to the actual formulas.</p> <p>Expressions, Equations, and Relationships. The student applies mathematical process standards to solve geometric problems. The student is expected to:</p> <ul style="list-style-type: none"> Ⓡ MATH.7.9B Determine the circumference and area of circles. Ⓡ MATH.7.9C Determine the area of composite figures containing combinations of rectangles, squares, parallelograms, trapezoids, triangles, semicircles, and quarter circles. Ⓢ MATH.7.9D 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 shapes' net. <p>Numbers and Operations. The student applies mathematical process standards to represent and use real numbers in a variety of forms. The student is expected to:</p> <ul style="list-style-type: none"> Ⓢ MATH.8.2B Approximate the value of an irrational number, including π and square roots of numbers less than 225, and locate that rational number approximation on a number line. <p>Expressions, Equations, and Relationships. The student applies mathematical process standards to use geometry to solve problems. The student is expected to:</p> <ul style="list-style-type: none"> Ⓡ MATH.8.7B Use previous knowledge of surface area to make connections to the formulas for lateral and total surface area and determine solutions for problems involving rectangular prisms, triangular prisms, and cylinders.

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	Nov. 15, 2021 - Jan. 14, 2022	
Unit	# Class Periods	<p>Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</p> <p>The bold face words in the TEKS/SEs indicate concepts addressed specifically in this unit; the unbolded concepts are addressed in other units of this course.</p> <p>The student will:</p>
<p>Unit 8: Volume Students solve problems involving volume in mathematical and real-world situations.</p>	<p>3 class periods (90-min. each) or 6 class periods (45-min. each)</p> <p><i>Thanksgiving Break</i> Nov. 22-26</p> <p><i>Enrichment Opportunities</i> Dec. 20-21</p> <p><i>Winter Break</i> Dec. 20-31</p> <p><i>MLK Jr. Day</i> Jan. 17</p> <p><i>Teacher Prep Day (no students)</i> Jan. 18</p>	<p>Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <p>Ⓟ MATH.7.1A/Ⓟ MATH.8.1A Apply mathematics to problems arising in everyday life, society, and the workplace.</p> <p>Ⓟ MATH.7.1C/Ⓟ MATH.8.1C Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems.</p> <p>Proportionality. The student applies mathematical process standards to use geometry to describe or solve problems involving proportional relationships. The student is expected to:</p> <p>Ⓢ MATH.7.5B Describe π as the ratio of the circumference of a circle to its diameter.</p> <p>Expressions, equations, and relationships. The student applies mathematical process standards to develop geometric relationships with volume. The student is expected to:</p> <ul style="list-style-type: none"> • MATH.7.8A Model the relationship between the volume of a rectangular prism and a rectangular pyramid having both congruent bases and heights and connect that relationship to the formulas. • MATH.7.8B Explain verbally and symbolically the relationship between the volume of a triangular prism and a triangular pyramid having both congruent bases and heights and connect that relationship to the formulas. <p>Expressions, Equations, and Relationships. The student applies mathematical process standards to solve geometric problems. The student is expected to:</p> <p>Ⓡ MATH.7.9A Solve problems involving the volume of rectangular prisms, triangular prisms, rectangular pyramids, and triangular pyramids.</p> <p>Numbers and Operations. The student applies mathematical process standards to represent and use real numbers in a variety of forms. The student is expected to:</p> <p>Ⓢ MATH.8.2B Approximate the value of an irrational number, including π</p>

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		<p>and square roots of numbers less than 225 and locate that rational number approximation on a number line.</p> <p>Expressions, Equations, and Relationships. The student applies mathematical process standards to develop mathematical relationships and make connections to geometric formulas. The student is expected to:</p> <p>Ⓢ MATH.8.6A Describe the volume formula $V = Bh$ of a cylinder in terms of its base area and its height.</p> <p>Expressions, Equations, and Relationships. The student applies mathematical process standards to use geometry to solve problems. The student is expected to:</p> <p>Ⓡ MATH.8.7A Solve problems involving the volume of cylinders, cones, and spheres.</p>
<p>Unit 9: Properties of Transformations Students generalize the properties of orientation and congruence of translations, reflections, and rotations and differentiate between transformations that preserve congruence. Special investigations with algebraic representations should be included in a way that prepares students for transformations of functions.</p>	<p>3 class periods (90-min. each) or 6 class periods (45-min. each)</p>	<p>Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <p>Ⓢ MATH.7.1C/Ⓢ MATH.8.1C Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems.</p> <p>Ⓢ MATH.7.1F/Ⓢ MATH.8.1F Analyze mathematical relationships to connect and communicate mathematical ideas.</p> <p>Two-dimensional Shapes. The student applies mathematical process standards to develop transformational geometry concepts. The student is expected to:</p> <p>Ⓢ MATH.8.10A Generalize the properties of orientation and congruence of rotations, reflections, translations, and dilations of two-dimensional shapes on a coordinate plane.</p> <p>Ⓢ MATH.8.10B Differentiate between transformations that preserve congruence and those that do not.</p>

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		Ⓡ MATH.8.10C Explain the effect of translations, reflections over the x - or y -axis, and rotations limited to 90° , 180° , 270° , and 360° as applied to two-dimensional shapes on a coordinate plane using an algebraic representation.
Unit 10: Ratios and Rates Students calculate unit rates and solve real-world problems such as unit conversions or problems involving percent increase and percent decrease.	3 class periods (90-min. each) or 6 class periods (45-min. each)	Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to: Ⓢ MATH.7.1A /Ⓢ MATH.8.1A Apply mathematics to problems arising in everyday life, society, and the workplace. Ⓢ MATH.7.1D /Ⓢ MATH.8.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate. Proportionality. The student applies mathematical process standards to represent and solve problems involving proportional relationships. The student is expected to: Ⓢ MATH.7.4B Calculate unit rates from rates in mathematical and real-world problems. Ⓡ MATH.7.4D Solve problems involving ratios, rates, and percents, including multi-step problems involving percent increase and percent decrease, and financial literacy problems. Ⓢ MATH.7.4E Convert between measurement systems, including the use of proportions and the use of unit rates. Proportionality. The student applies mathematical process standards to use proportional and non-proportional relationships to develop foundational concepts of functions. The student is expected to: Ⓢ MATH.8.4A Use similar right triangles to develop an understanding that slope, m , given as the rate comparing the change in y -values to the change in x -values, $(y_2 - y_1)/(x_2 - x_1)$, is the same for any two points (x_1, y_1) and (x_2, y_2) on the same line. Ⓡ MATH.8.4B Graph proportional relationships, interpreting the unit rate as the slope of the line that models the relationship.

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<p>Unit 11: Similarity and Scale Factor Students compare the attributes of similar shapes and use the ratios to solve real-world problems.</p>	<p>3 class periods (90-min. each) or 6 class periods (45-min. each)</p>	<p>Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <p>Ⓟ MATH.7.1A/Ⓟ MATH.8.1A Apply mathematics to problems arising in everyday life, society, and the workplace.</p> <p>Ⓟ MATH.7.1D/Ⓟ MATH.8.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate.</p> <p>Proportionality. The student applies mathematical process standards to represent and solve problems involving proportional relationships. The student is expected to:</p> <p>Ⓢ MATH.7.4B Calculate unit rates from rates in mathematical and real-world problems.</p> <p>Ⓢ MATH.7.4D Solve problems involving ratios, rates, and percents, including multi-step problems involving percent increase and percent decrease, and financial literacy problems.</p> <p>Ⓢ MATH.7.4E Convert between measurement systems, including the use of proportions and the use of unit rates.</p> <p>Proportionality. The student applies mathematical process standards to use proportional and non-proportional relationships to develop foundational concepts of functions. The student is expected to:</p> <p>Ⓢ MATH.8.4A Use similar right triangles to develop an understanding that slope, m, given as the rate comparing the change in y-values to the change in x-values, $(y_2 - y_1)/(x_2 - x_1)$, is the same for any two points (x_1, y_1) and (x_2, y_2) on the same line.</p> <p>Ⓢ MATH.8.4B Graph proportional relationships, interpreting the unit rate as the slope of the line that models the relationship.</p>

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	Jan. 19 - Feb. 25, 2022	
Unit	# Class Periods	<p align="center">Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</p> <p>The bold face words in the TEKS/SEs indicate concepts addressed specifically in this unit; the unbolded concepts are addressed in other units of this course.</p> <p>The student will:</p>
<p>Unit 12: Dilations Students compare the attributes of a figure and its image under a dilation. They also model and analyze the effect dilation has on the area and perimeter of two-dimensional figures.</p>	<p>3 class periods (90-min. each) or 6 class periods (45-min. each)</p> <p><i>Teacher Service Day/Presidents' Day (no students) Feb. 21</i></p>	<p>Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <p>Ⓟ MATH.7.1C/Ⓟ MATH.8.1C Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems.</p> <p>Ⓟ MATH.7.1F/Ⓟ MATH.8.1F Analyze mathematical relationships to connect and communicate mathematical ideas.</p> <p>Proportionality. The student applies mathematical process standards to use geometry to describe or solve problems involving proportional relationships. The student is expected to:</p> <p>Ⓢ MATH.7.5A Generalize the critical attributes of similarity, including ratios within and between similar shapes.</p> <p>Ⓢ MATH.7.5C Solve mathematical and real-world problems involving similar shape and scale drawings.</p> <p>Proportionality. The student applies mathematical process standards to use proportional relationships to describe dilations. The student is expected to:</p> <p>Ⓢ MATH.8.3B Compare and contrast the attributes of a shape and its dilation(s) on a coordinate plane.</p> <p>Ⓢ MATH.8.3C Use an algebraic representation to explain the effect of a given positive rational scale factor applied to two-dimensional figures on a coordinate plane with the origin as the center of dilation.</p> <p>Two-dimensional Shapes. The student applies mathematical process standards to develop transformational geometry concepts. The student is expected to:</p> <p>Ⓢ MATH.8.10A Generalize the properties of orientation and congruence of rotations, reflections, translations, and dilations of two-dimensional shapes on a coordinate plane.</p> <p>Ⓢ MATH.8.10D Model the effect on linear and area measurements of dilated two-dimensional shapes.</p>

Cycle 4	27 Days Jan. 19 - Feb. 25, 2022	<i>The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.</i>
Unit	# Class Periods	<p align="center">Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</p> <p>The bold face words in the TEKS/SEs indicate concepts addressed specifically in this unit; the unbolded concepts are addressed in other units of this course.</p> <p>The student will:</p>
<p>Unit 13: Functions Students identify functional relationships from multiple representations while distinguishing between proportional and non-proportional situations. Students use the constant of proportionality or rate of change to identify equations that model proportional or non-proportional relationships.</p>	<p>3 class periods (90-min. each) or 6 class periods (45-min. each)</p>	<p>Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <p>Ⓟ MATH.7.1B/Ⓟ MATH.8.1B Use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution.</p> <p>Ⓟ MATH.7.1E/Ⓟ MATH.8.1E Create and use representations to organize, record, and communicate mathematical ideas.</p> <p>Proportionality. The student applies mathematical process standards to represent and solve problems involving proportional relationships. The student is expected to:</p> <p>Ⓡ MATH.7.4A Represent constant rates of change in mathematical and real-world problems given pictorial, tabular, verbal, numeric, graphical, and algebraic representations, including $d = rt$.</p> <p>Ⓢ MATH.7.4C Determine the constant of proportionality ($k = y/x$) within mathematical and real-world problems.</p> <p>Proportionality. The student applies mathematical process standards to use proportional and non-proportional relationships to develop foundational concepts of functions. The student is expected to:</p> <p>Ⓢ MATH.8.5F Distinguish between proportional and non-proportional situations using tables, graphs, and equations in the form $y = kx$ or $y = mx + b$, where $b \neq 0$.</p> <p>Ⓡ MATH.8.5G Identify functions using sets of ordered pairs, tables, mappings, and graphs.</p> <p>Ⓢ MATH.8.5H Identify examples of proportional and non-proportional functions that arise from mathematical and real-world problems.</p>

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Unit	# Class Periods	<p align="center">Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</p> <p>The bold face words in the TEKS/SEs indicate concepts addressed specifically in this unit; the unbolded concepts are addressed in other units of this course.</p> <p>The student will:</p>
<p>Unit 14: Writing Linear Equations Students write linear equations from multiple representations.</p>	<p>5 class periods (90-min. each) or 10 class periods (45-min. each)</p>	<p>Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <p>Ⓟ MATH.7.1B/Ⓟ MATH.8.1B Use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution.</p> <p>Ⓟ MATH.7.1D/Ⓟ MATH.8.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate.</p> <p>Proportionality. The student applies mathematical process standards to represent and solve problems involving proportional relationships. The student is expected to:</p> <p>Ⓡ MATH.7.4A Represent constant rates of change in mathematical and real-world problems given pictorial, tabular, verbal, numeric, graphical, and algebraic representations, including $d = rt$.</p> <p>Ⓢ MATH.7.4B Calculate unit rates from rates in mathematical and real-world problems.</p> <p>Ⓢ MATH.7.4C Determine the constant of proportionality ($k = y/x$) within mathematical and real-world problems.</p> <p>Ⓢ MATH.7.4E Convert between measurement systems, including the use of proportions and the use of unit rates.</p> <p>Expressions, Equations, and Relationships. The student applies mathematical process standards to represent linear relationships using multiple representations. The student is expected to:</p> <p>Ⓡ MATH.7.7A Represent linear relationships using verbal descriptions, tables, graphs, and equations that simplify to the form $y = mx + b$.</p> <p>Proportionality. The student applies mathematical process standards to explain proportional and non-proportional relationships involving slope. The student is expected to:</p> <p>Ⓢ MATH.8.4A Use similar right triangles to develop an understanding that slope, m, given as the rate comparing the change in y-values to the change in</p>

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	Jan. 19 - Feb. 25, 2022	
Unit	# Class Periods	<p align="center">Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</p> <p>The bold face words in the TEKS/SEs indicate concepts addressed specifically in this unit; the unbolded concepts are addressed in other units of this course.</p> <p>The student will:</p>
		<p>x-values, $(y_2 - y_1)/(x_2 - x_1)$, is the same for any two points (x_1, y_1) and (x_2, y_2) on the same line.</p> <p>Ⓡ MATH.8.4B Graph proportional relationships, interpreting the unit rate as the slope of the line that models the relationship.</p> <p>Ⓡ MATH.8.4C Use data from a table or graph to determine the rate of change or slope and y-intercept in mathematical and real-world problems.</p> <p>Proportionality. The student applies mathematical process standards to use proportional and non-proportional relationships to develop foundational concepts of functions. The student is expected to:</p> <p>Ⓢ MATH.8.5A Represent linear proportional situations with tables, graphs, and equations in the form of $y = kx$.</p> <p>Ⓢ MATH.8.5B Represent linear non-proportional situations with tables, graphs, and equations in the form of $y = mx + b$, $b \neq 0$.</p> <p>Ⓢ MATH.8.5F Distinguish between proportional and non- proportional situations using tables, graphs, and equations in the form $y = kx$ or $y = mx + b$, where $b \neq 0$.</p> <p>Ⓡ MATH.8.5I Write an equation in the form $y = mx + b$ to model a linear relationship between two quantities using verbal, numerical, tabular, and graphical representations.</p>

Cycle 5		33 Days Feb. 28 - Apr. 22, 2022	<i>The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.</i>
Unit	# Class Periods	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The bold face words in the TEKS/SEs indicate concepts addressed specifically in this unit; the unbolded concepts are addressed in other units of this course. The student will:	
Unit 15: Solving Systems with Graphing Students use the intersections of graphed lines to determine the values of x and y that simultaneously satisfy the two linear equations.	3 class periods (90-min. each) or 6 class periods (45-min. each) <i>Enrichment Opportunities</i> Mar. 14-16 <i>Spring Break</i> Mar. 14-18 <i>Chávez-Huerta Day</i> Mar. 28 <i>Spring Holiday</i> Apr. 15	Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to: Ⓟ MATH.7.1C /Ⓟ MATH.8.1C Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems. Ⓟ MATH.7.1D /Ⓟ MATH.8.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate. Expressions, Equations, and Relationships. The student applies mathematical process standards to solve one-variable equations and inequalities. The student is expected to: Ⓢ MATH.7.11B Determine if the given value(s) make(s) one-variable, two-step equations and inequalities true. Expressions, Equations, and Relationships. The student applies mathematical process standards to use multiple representations to develop foundational concepts of simultaneous linear equations. The student is expected to: Ⓢ MATH.8.9A Identify and verify the values of x and y that simultaneously satisfy two linear equations in the form $y = mx + b$ from the intersections of the graphed equations.	
Unit 16: Data Students compare populations based on numeric data using dot plots or box plots. They compare shapes, centers, and spreads.	2 class periods (90-min. each) or 4 class periods (45-min. each)	Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to: Ⓟ MATH.7.1E /Ⓟ MATH.8.1E Create and use representations to organize, record, and communicate mathematical ideas. Ⓟ MATH.7.1G /Ⓟ MATH.8.1G Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication. Proportionality. The student applies mathematical process standards to use probability and statistics to describe or solve problems involving proportional relationships. The student is expected to:	

Cycle 5	33 Days Feb. 28 - Apr. 22, 2022	<i>The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.</i>
Unit	# Class Periods	<p align="center">Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</p> <p>The bold face words in the TEKS/SEs indicate concepts addressed specifically in this unit; the unbolded concepts are addressed in other units of this course.</p> <p>The student will:</p>
		<p>MATH.7.6F Use data from a random sample to make inferences about a population.</p> <p>Ⓡ MATH.7.6G Solve problems using data represented in bar graphs, dot plots, and circle graphs, including part-to-whole and part-to-part comparisons and equivalents.</p> <p>Measurement and Data. The student applies mathematical process standards to use statistical representations to analyze data. The student is expected to:</p> <p>Ⓡ MATH.7.12A Compare two groups of numeric data using comparative dot plots or box plots by comparing their shapes, centers, and spreads.</p> <p>Ⓢ MATH.7.12B Use data from a random sample to make inferences about a population.</p> <p>Ⓢ MATH.7.12C Compare two populations based on data in random samples from these populations, including informal comparative inferences about differences between the two populations.</p>
<p>Unit 17: Probability Students solve problems using qualitative and quantitative predictions and determine experimental and theoretical probabilities.</p>	<p>5 class periods (90-min. each) or 10 class periods (45-min. each)</p>	<p>Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <p>Ⓢ MATH.7.1A/Ⓢ MATH.8.1A Apply mathematics to problems arising in everyday life, society, and the workplace.</p> <p>Ⓢ MATH.7.1C/Ⓢ MATH.8.1C Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems.</p> <p>Proportionality. The student applies mathematical process standards to use probability and statistics to describe or solve problems involving proportional relationships. The student is expected to:</p> <p>Ⓢ MATH.7.6A Represent sample spaces for simple and compound events using lists and tree diagrams.</p> <ul style="list-style-type: none"> • MATH.7.6B Select and use different simulations to represent simple and compound events with and without technology. <p>Ⓢ MATH.7.6C Make predictions and determine solutions using experimental data for simple and compound events.</p>

Cycle 5	33 Days Feb. 28 - Apr. 22, 2022	<i>The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.</i>
Unit	# Class Periods	<p align="center">Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</p> <p>The bold face words in the TEKS/SEs indicate concepts addressed specifically in this unit; the unbolded concepts are addressed in other units of this course.</p> <p>The student will:</p>
		<p>Ⓢ MATH.7.6D Make predictions and determine solutions using theoretical probability for simple and compound events.</p> <p>Ⓢ MATH.7.6E Find the probabilities of a simple event and its complement and describe the relationship between the two.</p> <ul style="list-style-type: none"> • MATH.7.6F Use data from a random sample to make inferences about a population. <p>Ⓡ MATH.7.6H Solve problems using qualitative and quantitative predictions and comparisons from simple experiments.</p> <p>Ⓡ MATH.7.6I Determine experimental and theoretical probabilities related to simple and compound events using data and sample spaces.</p>
<p>Unit 18: Readiness and Supporting Standards Review</p> <p>Students use appropriate problem-solving strategies and skills to review relevant Readiness and Supporting Standards (based on individual student diagnostic data).</p> <p>(continued in cycle 6)</p>	<p>6 class periods (90-min. each) or 12 class periods (45-min. each)</p>	<p>Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <p>Ⓢ MATH.7.1A/Ⓢ MATH.8.1A Apply mathematics to problems arising in everyday life, society, and the workplace.</p> <p>Ⓢ MATH.7.1B/Ⓢ MATH.8.1B Use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution.</p> <p>Ⓢ MATH.7.1C/Ⓢ MATH.8.1C Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems.</p> <p>Ⓢ MATH.7.1D/Ⓢ MATH.8.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate.</p> <p>Ⓢ MATH.7.1E/Ⓢ MATH.8.1E Create and use representations to organize, record, and communicate mathematical ideas.</p> <p>Ⓢ MATH.7.1F/Ⓢ MATH.8.1F Analyze mathematical relationships to connect and communicate mathematical ideas.</p> <p>Ⓢ MATH.7.1G/Ⓢ MATH.8.1G Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.</p>

Cycle 6	31 Days	The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.
	Apr. 25 - June 7, 2022	
Unit	# Class Periods	<p>Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</p> <p>The bold face words in the TEKS/SEs indicate concepts addressed specifically in this unit; the unbolded concepts are addressed in other units of this course.</p> <p>The student will:</p>
<p>Unit 18: Readiness and Supporting Standards Review</p> <p>Students use appropriate problem-solving strategies and skills to review relevant Readiness and Supporting Standards (based on individual student diagnostic data).</p> <p>(continued from cycle 5)</p>	<p>6 class periods (90-min. each) or 12 class periods (45-min. each)</p> <p><i>Memorial Day May 30</i></p> <p><i>Teacher Prep Day (no students) June 8</i></p>	<p>Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <p>Ⓟ MATH.7.1A/Ⓟ MATH.8.1A Apply mathematics to problems arising in everyday life, society, and the workplace.</p> <p>Ⓟ MATH. 7.1B/Ⓟ MATH.8.1B Use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution.</p> <p>Ⓟ MATH. 7.1C/Ⓟ MATH.8.1C Select tools, including real objects, manipulatives, paper and pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems.</p> <p>Ⓟ MATH. 7.1D/Ⓟ MATH.8.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate.</p> <p>Ⓟ MATH. 7.1E/Ⓟ MATH.8.1E Create and use representations to organize, record, and communicate mathematical ideas.</p> <p>Ⓟ MATH. 7.1F/Ⓟ MATH.8.1F Analyze mathematical relationships to connect and communicate mathematical ideas.</p> <p>Ⓟ MATH. 7.1G/Ⓟ MATH.8.1G Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.</p>
<p>Unit 19: Scatterplots and Trend Lines</p> <p>Students construct and describe scatterplots. They use trend lines to approximate linear relationships and make predictions from linear models. Students also determine the mean absolute deviation to</p>	<p>3 class periods (90-min. each) or 6 class periods (45-min. each)</p>	<p>Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <p>Ⓟ MATH. 7.1A/Ⓟ MATH.8.1A Apply mathematics to problems arising in everyday life, society, and the workplace.</p> <p>Ⓟ MATH. 7.1D/Ⓟ MATH.8.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate.</p> <p>Proportionality. The student applies mathematical process standards to use proportional and non-proportional relationships to develop foundational concepts of functions. The student is expected to:</p>

Cycle 6	31 Days Apr. 25 - June 7, 2022	<i>The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.</i>
Unit	# Class Periods	<p align="center">Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</p> <p>The bold face words in the TEKS/SEs indicate concepts addressed specifically in this unit; the unbolded concepts are addressed in other units of this course.</p> <p>The student will:</p>
measure average distance data.		<p>Ⓢ MATH.8.5C Contrast bivariate sets of data that suggest a linear relationship with bivariate sets of data that do not suggest a linear relationship from a graphical representation.</p> <p>Ⓡ MATH.8.5D Use a trend line that approximates the linear relationship between bivariate sets of data to make predictions.</p> <p>Measurement and Data. The student applies mathematical process standards to use statistical procedures to describe data. The student is expected to:</p> <p>Ⓢ MATH.8.11A Construct a scatterplot and describe the observed data to address questions of association such as linear, non-linear, and no association between bivariate data.</p> <p>Ⓢ MATH.8.11B Determine the mean absolute deviation and use this quantity as a measure of the average distance data are from the mean using a data set of no more than 10 data points.</p> <p>MATH.8.11C Simulate generating random samples of the same size from a population with known characteristics to develop the notion of a random sample being representative of the population from which it was selected.</p>
<p>Unit 20: Bridge to Algebra 1 Students reinforce their understanding of proportional and non-proportional relationships involving slope and solve real-world problems and justify solutions.</p>	<p>3 class periods (90-min. each) or 6 class periods (45-min. each)</p>	<p>Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <p>ⓇⓈ MATH.8.1B Use a problem-solving model that incorporates analyzing given information, formulating a plan or strategy, determining a solution, justifying the solution, and evaluating the problem-solving process and the reasonableness of the solution.</p> <p>ⓇⓈ MATH.8.1F Analyze mathematical relationships to connect and communicate mathematical ideas.</p> <p>Proportionality. The student applies mathematical process standards to explain proportional and non-proportional relationships involving slope. The student is expected to:</p> <p>Ⓢ MATH.8.4A Use similar right triangles to develop an understanding that slope, m, given as the rate comparing the change in y-values to the change in x-values, $(y_2 - y_1)/(x_2 - x_1)$, is the same for any two points (x_1, y_1) and (x_2, y_2) on the same line.</p>

Cycle 6	31 Days Apr. 25 - June 7, 2022	<i>The recommended number of class periods is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. Complete instructional planning information and support are in the HISD Curriculum documents.</i>
Unit	# Class Periods	<p align="center">Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</p> <p>The bold face words in the TEKS/SEs indicate concepts addressed specifically in this unit; the unbolded concepts are addressed in other units of this course.</p> <p>The student will:</p>
		<p>Ⓡ MATH.8.4B Graph proportional relationships, interpreting the unit rate as the slope of the line that models the relationship.</p> <p>Ⓡ MATH.8.4C Use data from a table or graph to determine the rate of change or slope and y-intercept in mathematical and real-world problems.</p> <p>Linear Functions, Equations, and Inequalities. The student applies the mathematical process standards when using properties of linear functions to write and represent in multiple ways, with and without technology, linear equations, inequalities, and systems of equations. The student is expected to:</p> <p>Ⓢ ALGI.2B Write linear equations in two variables in various forms, including $y = mx + b$, $Ax + By = C$, and $y - y_1 = m(x - x_1)$, given one point and the slope and given two points.</p> <p>Ⓡ ALGI.2C Write linear equations in two variables given a table of values, a graph, and a verbal description.</p> <p>Ⓢ ALGI.2E Write the equation of a line that contains a given point and is parallel to a given line.</p> <p>Ⓢ ALGI.2F Write the equation of a line that contains a given point and is perpendicular to a given line.</p> <p>Linear Functions, Equations, and Inequalities. The student applies the mathematical process standards when using graphs of linear functions, key features, and related transformations to represent in multiple ways and solve, with and without technology, equations, inequalities, and systems of equations. The student is expected to:</p> <p>Ⓢ ALGI.3A Determine the slope of a line given a table of values, a graph, two points on the line, and an equation written in various forms including $y = mx + b$, $Ax + By = C$, and $y - y_1 = m(x - x_1)$.</p> <p>Ⓡ ALGI.3B Calculate the rate of change of a linear function represented tabularly, graphically, or algebraically in context of mathematical and real-world problems.</p>

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	Apr. 25 - June 7, 2022	
Unit	# Class Periods	<p>Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs)</p> <p>The bold face words in the TEKS/SEs indicate concepts addressed specifically in this unit; the unbolded concepts are addressed in other units of this course.</p> <p>The student will:</p>
<p>Unit 21: College Planning with Financial Literacy</p> <p>Students apply financial literacy concepts to calculate simple and compound interest earnings, while making decisions on future plans, including attending a 2-year or 4-year college.</p>	<p>2 class periods (90-min. each) or 4 class periods (45-min. each)</p>	<p>Mathematical Process Standards. The student uses mathematical processes to acquire and demonstrate mathematical understanding. The student is expected to:</p> <ul style="list-style-type: none"> Ⓡ MATH.8.1A Apply mathematics to problems arising in everyday life, society, and the workplace. Ⓡ MATH.8.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate. <p>Personal Financial Literacy. The student applies mathematical process standards to develop an economic way of thinking and problem solving useful in one's life as a knowledgeable consumer and investor. The student is expected to:</p> <ul style="list-style-type: none"> Ⓢ MATH.8.12A Solve real-world problems comparing how interest rate and loan length affect the cost of credit. • MATH.8.12B Calculate the total cost of repaying a loan, including credit cards and easy access loans, under various rates of interest and over different periods using an online calculator. Ⓡ MATH.8.12D Calculate and compare simple interest and compound interest earnings. • MATH.8.12E Identify and explain the advantages and disadvantages of different payment methods. • MATH.8.12F Analyze situations to determine if they represent a financially responsible decision and identify the benefits of financial responsibility and the costs of financial irresponsibility. Ⓢ MATH.8.12G Estimate the cost of a 2-year and 4-year college education including family contribution and devise a periodic savings plan for accumulating the money needed to contribute to the total cost of attendance for at least the first year of college.