#### 2021-2022 Scope and Sequence

Mathematics – Grade 5

Cycle 1	<b>27 Days</b> Aug. 23 - Oct. 1,	The recommended number of lessons 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.
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Mathematical Process Standards Unit planning guides identify Process Standards that align to and support the development of the content standards covered in each unit. *See unit planning guides for a list of recommended process standards specific to each unit of study.	Embedding process standards throughout all units of study supports students' development of mathematical proficiency. Renaissance 360 Screener BOY Aug. 30 – Sept. 24	<ul> <li>Mathematical Process Standards</li> <li>The student uses mathematical processes to acquire and demonstrate mathematical understanding.</li> <li>MATH.5.1A Apply mathematics to problems arising in everyday life, society, and the workplace.</li> <li>MATH.5.1B 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.</li> <li>MATH.5.1C Select tools, including real objects, manipulatives, paper/pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems.</li> <li>MATH.5.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate.</li> <li>MATH.5.1E Create and use representations to organize, record, and communicate mathematical ideas.</li> <li>MATH.5.1G Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.</li> </ul>
Unit 1: Establish Math Routines and Decimal Place Value Students will establish procedures and routines for daily problem solving and number sense activities. Students will represent, compare, order, and round decimals using concrete, pictorial, and abstract representations.	5 90-minute lessons Learning Recovery Days Aug. 23-24 Suggested Pacing: Aug. 25-31 Extend Review Assess Reteach Sept. 1	<ul> <li>Establish Math Routines and Decimal Place Value (5 lessons)</li> <li>Number and Operations The student applies mathematical process standards to represent, compare, and order positive rational numbers and understand relationships as related to place value. (S) MATH.5.2A Represent the value of the digit in decimals through the thousandths using expanded notation and numerals. (R) MATH.5.2B Compare and order two decimals to thousandths and represent comparisons using the symbols &gt;, &lt;, or =. (S) MATH.5.2C Round decimals to tenths or hundredths.</li></ul>

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2021-2022 Scope and Sequence

Mathematics – Grade 5

Cuele 1	27 Days	The recommended number of lessons is less than the number of days in the grading cycle to
Cycle 1	Aug. 23 - Oct. 1,	2021 Complete instructional planning information and support are in the HISD Curriculum documents.
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Unit 2: Whole Number and Decimal Addition and Subtraction Problems Students will estimate and solve real-world problems involving addition and subtraction of whole numbers and decimals.	4 90-minute lessons Suggested Pacing: Sept. 2-8 <i>Labor Day</i> Sept. 6	<ul> <li>Whole Number and Decimal Addition and Subtraction Problems (4 lessons)</li> <li>Number and Operations The student applies mathematical process standards to develop and use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy.</li> <li>MATH.5.3A Estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division with whole numbers, fractions, and decimals.</li> <li>MATH.5.3K Add and subtract positive rational numbers fluently. [Whole Numbers and Decimals]</li> </ul>
Unit 3: Fraction Addition and Subtraction Students will use concrete objects, pictorial models, and properties of operations to represent and solve problems involving addition and subtraction of fractions with unequal denominators.	7 90-minute lessons Suggested Pacing: Sept. 9-21 Fall Holiday Sept. 16 Teacher Service Day (no students) Sept. 17 Extend Review Assess Reteach Sept. 22	<ul> <li>Fraction Addition and Subtraction (7 lessons)</li> <li>Number and Operations The student applies mathematical process standards to develop and use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy. (© MATH.5.3A Estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division with whole numbers, fractions, and decimals. (© MATH.5.3H Represent and solve addition and subtraction of fractions with unequal denominators referring to the same whole using objects and pictorial models and properties of operations.</li></ul>



🕑 - State Process Standard

R - State Readiness Standard

#### 2021-2022 Scope and Sequence

Mathematics – Grade 5

Cycle 1	<b>27 Days</b> Aug. 23 - Oct. 1.	The recommended number of lessons 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.
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Unit 4: Addition and Subtraction of Positive Rational Numbers Students will estimate and solve real-world problems involving addition and subtraction of positive rational numbers (whole numbers, decimals, and fractions).	4 90-minute lessons Suggested Pacing: Sept.23-28	Addition and Subtraction of Positive Rational Numbers (4 lessons) Number and Operations The student applies mathematical process standards to develop and use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy. (S) MATH.5.3A Estimate to determine solutions to mathematical and real-world problems involving <u>addition</u> , <u>subtraction</u> , multiplication, or division with <u>whole</u> <u>numbers</u> , <u>fractions</u> , and <u>decimals</u> . (R) MATH.5.3K Add and subtract positive rational numbers fluently.
Unit 5: Prime and Composite Numbers Students will use concrete and pictorial models and factor pairs to identify prime and composite numbers.	3 90-minute lessons Suggested Pacing: Sept. 29 – Oct. 1	<ul> <li>Prime and Composite Numbers (3 lessons)</li> <li>Algebraic Reasoning</li> <li>The student applies mathematical process standards to develop concepts of expressions and equations.</li> <li>(s) MATH.5.4A Identify prime and composite numbers.</li> </ul>



(S) - State Supporting Standard

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#### 2021-2022 Scope and Sequence

Mathematics – Grade 5

Cycle 2	29 Days	The recommended number of lessons is less than the number of days in the grading cycle to	
Cycle Z	Oct. 5 - Nov. 12,	2021 Complete instructional planning information and support are in the HISD Curriculum docur	
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:	
Mathematical Process Standards Unit planning guides identify Process Standards that align to and support the development of the content standards covered in each unit. *See unit planning guides for a list of recommended process standards specific to each unit of study.	Embedding process standards throughout all units of study supports students' development of mathematical proficiency.	<ul> <li>Mathematical Process Standards The student uses mathematical processes to acquire and demonstrate mathematical understanding. </li> <li>MATH.5.1A Apply mathematics to problems arising in everyday life, society, and the workplace.</li> <li>MATH.5.1B 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. </li> <li>MATH.5.1C Select tools, including real objects, manipulatives, paper/pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems. MATH.5.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations to organize, record, and communicate mathematical ideas. MATH.5.1F Analyze mathematical relationships to connect and communicate mathematical ideas. MATH.5.1G Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.</li></ul>	
Unit 6: Whole Number Multiplication and Division Problems Students will use concrete and pictorial models and factor pairs to identify prime and composite numbers. They will use strategies and the standard algorithm to represent and solve multi-step problems involving multiplication and division of whole numbers.	8 90-minute lessons <i>Teacher</i> <i>Service Day</i> ( <i>no students</i> ) <i>Oct. 4</i> <b>Suggested</b> <b>Pacing:</b> Oct. 5-14 <b>Extend</b> <b>Review</b> <b>Assess</b> <b>Reteach</b> Oct. 15	<ul> <li>Whole Number Multiplication and Division Problems (8 lessons)</li> <li>Number and Operations The student applies mathematical process standards to develop and use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy. (S) MATH.5.3A Estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, <u>multiplication</u>, or <u>division</u> with <u>whole numbers</u>, fractions, and decimals. (S) MATH.5.3B Multiply with fluency a three-digit number by a two-digit number using the standard algorithm. (S) MATH.5.3C Solve with proficiency for quotients of up to a four-digit dividend by a two-digit divisor using strategies and the standard algorithm. Algebraic Reasoning The student applies mathematical process standards to develop concepts of expressions and equations. (S) MATH.5.4B Represent and solve multi-step problems involving the four operations with whole numbers using equations with a letter standing for the unknown quantity.</li></ul>	



😰 - State Process Standard

R - State Readiness Standard

(S) - State Supporting Standard

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#### 2021-2022 Scope and Sequence

Mathematics – Grade 5

Cycle 2	<b>29 Days</b> Oct. 5 - Nov. 12,	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days.           2021         Complete instructional planning information and support are in the HISD Curriculum documents.
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Unit 7: Simplify Numerical Expressions of Whole Numbers Students will simplify expressions involving whole numbers and the use of all four operations.	4 90-minute lessons Suggested Pacing: Oct. 18-21 Extend Review Assess Reteach Oct. 22-27	<ul> <li>Simplify Numerical Expressions of Whole Numbers (4 lessons)</li> <li>Algebraic Reasoning The student applies mathematical process standards to develop concepts of expressions and equations. (S) MATH.5.4E Describe the meaning of parentheses and brackets in a numeric expression. (S) MATH.5.4F Simplify numerical expressions that do not involve exponents, including up to two levels of grouping.</li></ul>
Unit 8: Decimal Multiplication Students will use concrete objects and pictorial models, including area models, to represent and solve problems involving multiplication of decimals.	9 90-minute lessons Suggested Pacing: Oct. 28 – Nov. 9 Extend Review Assess Reteach Nov. 10-12 <u>Snapshot 1</u> Suggested Window: Oct. 25-29 <u>See Outline for TEKS Details</u>	<ul> <li>Decimal Multiplication (9 lessons)</li> <li>Number and Operations The student applies mathematical process standards to develop and use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy. (© MATH.5.3A Estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, <u>multiplication</u>, or division with <i>whole numbers, fractions, and <u>decimals</u>. (© MATH.5.3D Represent multiplication of decimals with products to the hundredths using objects and pictorial models, including area models. (© MATH.5.3E Solve for products of decimals to the hundredths, including situations involving money, using strategies based on place-value understandings, properties of operations, and the relationship to the multiplication of whole numbers. Geometry and Measurement The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving measurement. (© MATH.5.7A Solve problems by calculating conversions within a measurement system, customary or metric. [Multiplication of Decimals and Whole Numbers: Conversions]</i></li></ul>



**£Q** 

R - State Readiness Standard

#### **HISD** Elementary Curriculum and Development INSPIRING TEACHING, IGNITING LITERACY & LEARNING.

2021-2022 Scope and Sequence

Mathematics – Grade 5

Cycle 3	<b>30 Days</b> Nov. 15, 2021 Jan. 14, 2022	The recommended number of lessons 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.
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Mathematical Process Standards Unit planning guides identify Process Standards that align to and support the development of the content standards covered in each unit. *See unit planning guides for a list of recommended process standards specific to each unit of study.	Embedding process standards throughout all units of study supports students' development of mathematical proficiency.	<ul> <li>Mathematical Process Standards</li> <li>The student uses mathematical processes to acquire and demonstrate mathematical understanding.</li> <li>MATH.5.1A Apply mathematics to problems arising in everyday life, society, and the workplace.</li> <li>MATH.5.1B 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.</li> <li>MATH.5.1C Select tools, including real objects, manipulatives, paper/pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems.</li> <li>MATH.5.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations, including symbols, diagrams, graphs, and language as appropriate.</li> <li>MATH.5.1F Create and use representations to organize, record, and communicate mathematical ideas.</li> <li>MATH.5.1F Analyze mathematical relationships to connect and communicate mathematical ideas.</li> <li>MATH.5.1G Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.</li> </ul>
Unit 9: Decimal Division Students will use concrete objects and pictorial models, including area models, to represent and solve problems involving division of decimals.	6 90-minute lessons Extend Review Assess Reteach Nov. 15 Suggested Pacing: Nov. 16-30 Thanksgiving Break Nov. 22-26 Extend Review Assess Reteach Dec. 1-3	<ul> <li>Decimal Division (6 lessons)</li> <li>Number and Operations The student applies mathematical process standards to develop and use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy. (S) MATH.5.3A Estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or <u>division</u> with <i>whole numbers, fractions, and <u>decimals</u>. (S) MATH.5.3F Represent quotients of decimals to the hundredths, up to four-digit dividends and two-digit whole number divisors, using objects and pictorial models, including area models. (B) MATH.5.3G Solve for quotients of decimals to the hundredths, up to four-digit dividends and two-digit whole number divisors, using strategies and algorithms, including the standard algorithm.</i></li></ul>



🕑 - State Process Standard

R - State Readiness Standard

(S) - State Supporting Standard

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2021-2022 Scope and Sequence

Mathematics – Grade 5

	30 Davs		
Cycle 3	Nov. 15, 2021 - Jan. 14, 2022		The recommended number of lessons 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.
Unit	Number of Lessons	Texa The	as Essential Knowledge and Skills/Student Expectations (TEKS/SEs) student will:
Unit 10: Fraction Multiplication Students will use concrete objects and pictorial models, including area models, to represent and solve problems involving multiplication of fractions.	6 90-minute lessons Suggested Pacing: Dec. 6-14 Extend Review Assess Reteach Dec. 15-17 <u>District-Level</u> <u>Assessment</u> Suggested Window: Dec. 6-17 <u>See Blueprint for</u> <u>TEKS Details</u> <i>Winter Break</i> Dec. 20-31	Frace Num The strat solve © N prob num © N fract inclu Geo The units © N mea Who	<ul> <li>ction Multiplication (6 lessons)</li> <li>hber and Operations</li> <li>student applies mathematical process standards to develop and use tegies and methods for positive rational number computations in order to e problems with efficiency and accuracy.</li> <li>MATH.5.3A Estimate to determine solutions to mathematical and real-world olems involving addition, subtraction, <u>multiplication</u>, or division <i>with whole obers, fractions, and decimals.</i></li> <li>MATH.5.3I Represent and solve multiplication of a whole number and a tion that refers to the same whole using objects and pictorial models, using area models.</li> <li>metry and Measurement</li> <li>student applies mathematical process standards to select appropriate s, strategies, and tools to solve problems involving measurement.</li> <li>MATH.5.7A Solve problems by calculating conversions within a usurement system, customary or metric. [Multiplication of Fractions and oble Numbers: Conversions]</li> </ul>
Unit 11: Fraction Division Students will use concrete objects and pictorial models, including area models, to represent and solve problems involving division of fractions.	7 90-minute lessons Suggested Pacing: Jan. 3-11 Extend Review Assess Reteach Jan. 12-14	Frac Num The strat solve © N prob num © N divis obje ® N who	<ul> <li>and Operations</li> <li>astudent applies mathematical process standards to develop and use tegies and methods for positive rational number computations in order to e problems with efficiency and accuracy.</li> <li>ATH.5.3A Estimate to determine solutions to mathematical and real-world blems involving addition, subtraction, multiplication, or <u>division</u> with whole blers, <u>fractions</u>, and decimals.</li> <li>ATH.5.3J Represent division of a unit fraction by a whole number and the sion of a whole number by a unit fraction such as 1/3 ÷ 7 and 7 ÷ 1/3 using cts and pictorial models, including area models.</li> <li>ATH.5.3L Divide whole numbers by unit fractions and unit fractions by le numbers.</li> </ul>



#### 2021-2022 Scope and Sequence

Mathematics – Grade 5

Cycle 4	27 Days	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days.
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Mathematical Process Standards Unit planning guides identify Process Standards that align to and support the development of the content standards covered in each unit. *See unit planning guides for a list of recommended process standards specific to each unit of study.	Embedding process standards throughout all units of study supports students' development of mathematical proficiency. Renaissance 360 Screener MOY Jan. 14 – Feb. 18	<ul> <li>Mathematical Process Standards The student uses mathematical processes to acquire and demonstrate mathematical understanding. (*) MATH.5.1A Apply mathematics to problems arising in everyday life, society, and the workplace. (*) MATH.5.1B 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. (*) MATH.5.1C Select tools, including real objects, manipulatives, paper/pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems. (*) MATH.5.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations to organize, record, and communicate mathematical ideas. (*) MATH.5.1F Analyze mathematical relationships to connect and communicate mathematical ideas. (*) MATH.5.1G Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.</li></ul>
Unit 12: Simplify Numerical Expressions of Positive Rational Numbers Students will simplify expressions involving positive rational numbers and the use of all four operations.	4 90-minute lessons <i>MLK Jr. Day Jan. 17</i> <i>Teacher Prep Day</i> ( <i>no students</i> ) <i>Jan. 18</i> <b>Suggested</b> <b>Pacing:</b> Jan. 19-24	<ul> <li>Simplify Numerical Expressions of Positive Rational Numbers (4 lessons)</li> <li>Algebraic Reasoning The student applies mathematical process standards to develop concepts of expressions and equations. (a) MATH.5.4E Describe the meaning of parentheses and brackets in a numeric expression. (b) MATH.5.4F Simplify numerical expressions that do not involve exponents, including up to two levels of grouping.</li></ul>

 😢 - State Process Standard

R - Aligned to Upcoming State Readiness Standard

R - State Readiness Standard

S - State Supporting Standard

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#### 2021-2022 Scope and Sequence

Mathematics – Grade 5

Cycle 4	<b>27 Days</b> Jan. 19 - Feb. 25	2022	The recommended number of lessons 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.
Unit	Number of Lessons	Texas	s Essential Knowledge and Skills/Student Expectations (TEKS/SEs) tudent will:
Unit 13: Geometry Students will use essential attributes and properties to classify two- dimensional figures using graphic organizers.	6 90-minute lessons Suggested Pacing: Jan. 25 – Feb. 1 Extend Review Assess Reteach Feb. 2-3	Geom Geom The st dimen ® MA subse	netry and Measurement tudent applies mathematical process standards to classify two- isional figures by attributes and properties. ATH.5.5A Classify two-dimensional figures in a hierarchy of sets and ets using graphic organizers based on their attributes and properties.
Unit 14: Conversions Students will use and create tables to solve problems involving the conversion of units of measure for a given attribute within the same system of measurement.	4 90-minute lessons Suggested Pacing: Feb. 4-9	Conv Geom The si units, (S) MA measu	ersions (4 lessons) netry and Measurement tudent applies mathematical process standards to select appropriate strategies, and tools to solve problems involving measurement. ATH.5.7A Solve problems by calculating conversions within a urement system, customary or metric.
Unit 15: Perimeter, Area, and Volume Students will represent and solve problems involving perimeter, area, and volume.	9 90-minute lessons <u>Part 1</u> Suggested Pacing: Feb. 10-15 Extend Review Assess Reteach Feb. 16	Part 1 Algeb The si expres <b>® MA</b> operat unkno <b>® MA</b> and re <i>Whole</i>	<ul> <li><b>Perimeter and Area</b> (4 lessons)</li> <li><b>Draic Reasoning</b></li> <li>tudent applies mathematical process standards to develop concepts of ssions and equations.</li> <li><b>ATH.5.4B</b> Represent and solve multi-step problems involving the four tions with whole numbers using equations with a letter standing for the own quantity.</li> <li><b>ATH.5.4H</b> Represent and solve problems related to <b>perimeter</b> and/or <b>area</b> elated to volume. <i>[Whole Numbers, Decimals, &amp; Fractions: Perimeter; e Numbers: Area]</i></li> </ul>



PS - State Process Standard

R - State Readiness Standard

(S) - State Supporting Standard

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#### **HISD** Elementary Curriculum and Development INSPIRING TEACHING, IGNITING LITERACY & LEARNING.

#### 2021-2022 Scope and Sequence

Mathematics – Grade 5

Cycle 4	<b>27 Days</b> Jan. 19 - Feb. 25	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days. , 2022 Complete instructional planning information and support are in the HISD Curriculum documents.
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Unit 15: Perimeter, Area, and Volume Students will use concrete objects and models to develop formulas to measure the volume of a rectangular prism or cube using both customary units and metric units.	Part 2 Suggested Pacing: Feb. 17-24 Teacher Service Day / (no students) Feb. 21 Extend Review Assess Reteach Feb. 25	<ul> <li>Part 2: Volume (5 lessons)</li> <li>Algebraic Reasoning The student applies mathematical process standards to develop concepts of expressions and equations. (S) MATH.5.4B Represent and solve multi-step problems involving the four operations with whole numbers using equations with a letter standing for the unknown quantity. MATH.5.4G Use concrete objects and pictorial models to develop the formulas for the volume of a rectangular prism, including the special form for a cube (V = 1 x w x h, V = s x s x s, and V = Bh). (S) MATH.5.4H Represent and solve problems related to perimeter and/or area and related to volume. [Whole Numbers: Volume] Geometry and Measurement The student applies mathematical process standards to understand, recognize and quantify volume. (S) MATH.5.6A Recognize a cube with side length of one unit as a unit cube having one cubic unit of volume and the volume of a three-dimensional figure as the number of unit cubes (n cubic units) needed to fill it with no gaps or overlaps if possible. (S) MATH.5.6B Determine the volume of a rectangular prism with whole number side lengths in problems related to the number of layers times the number of unit cubes in the area of the base.</li></ul>



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#### **HISD** Elementary Curriculum and Development INSPIRING TEACHING, IGNITING LITERACY & LEARNING.

2021-2022 Scope and Sequence

Mathematics – Grade 5

Cycle 5	<b>33 Days</b> Feb. 28 - Apr. 22	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days.           , 2022         Complete instructional planning information and support are in the HISD Curriculum documents.
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Mathematical Process Standards Unit planning guides identify Process Standards that align to and support the development of the content standards covered in each unit. *See unit planning guides for a list of recommended process standards specific to each unit of study.	Embedding process standards throughout all units of study supports students' development of mathematical proficiency.	<ul> <li>Mathematical Process Standards</li> <li>The student uses mathematical processes to acquire and demonstrate mathematical understanding.</li> <li>MATH.5.1A Apply mathematics to problems arising in everyday life, society, and the workplace.</li> <li>Math.5.1B 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.</li> <li>MATH.5.1C Select tools, including real objects, manipulatives, paper/pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems.</li> <li>MATH.5.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations to organize, record, and communicate mathematical ideas.</li> <li>MATH.5.1F Analyze mathematical relationships to connect and communicate mathematical language in written or oral communication.</li> </ul>



R - State Readiness Standard

S - State Supporting Standard

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#### 2021-2022 Scope and Sequence

Mathematics – Grade 5

Cycle 5	<b>33 Days</b> Feb 28 - Apr 22	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days.
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Unit 16: Data Students will represent and solve problems using data from bar graphs, frequency tables, dot plots, and stem-and-leaf plots. Data may be in the form of whole numbers, decimals, or fractions.	7 90-minute lessons Learning Recovery Days Feb. 28 – Mar. 1 Suggested Pacing: Mar. 2-10 Snapshot 2 Suggested Window: Feb. 28 – Mar. 4 See Outline for TEKS Details Extend Review Assess Reteach Mar. 11 Spring Break Mar. 14-18	Data (7 lessons)         Data Analysis         The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data.         (*) MATH.5.9A Represent categorical data with bar graphs or frequency tables and numerical data, including data sets of measurements in fractions or decimals, with dot plots or stem-and-leaf plots.         (*) MATH.5.9C Solve one- and two-step problems using data from a frequency table, dot plot, bar graph, stem-and-leaf plot, or scatter plot.



State Process Standard

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#### 2021-2022 Scope and Sequence

Mathematics – Grade 5

Cycle 5	<b>33 Days</b>	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days.
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Unit 17: Graphing Students will graph ordered pairs of whole, decimal, and fraction numbers in Quadrant I of the coordinate plane. Students will generate and graph a numerical pattern when given a rule. Students will represent and solve problems using data from a scatter plot.	7 90-minute lessons <u>Part 1</u> Suggested Pacing: Mar. 21-25 Chávez-Huerta Day Mar. 28	<ul> <li>Part 1: Numerical Patterns (5 lessons)</li> <li>Algebraic Reasoning The student applies mathematical process standards to develop concepts of expressions and equations. (® MATH.5.4C Generate a numerical pattern when given a rule in the form y = ax or y = x + a and graph. (© MATH.5.4D Recognize the difference between additive and multiplicative numerical patterns given in a table or graph. Geometry and Measurement The student applies mathematical process standards to identify locations on a coordinate plane. (© MATH.5.8A Describe the key attributes of the coordinate plane, including perpendicular number lines (axes) where the intersection (origin) of the two lines coincides with zero on each number line and the given point (0,0); the x-coordinate, the first number in an ordered pair, indicates movement parallel to the x-axis starting at the origin, and the y-coordinate, the second number, indicates movement parallel to the y-axis starting at the origin. (© MATH.5.8B Describe the process for graphing ordered pairs of numbers in the first quadrant of the coordinate plane. (® MATH.5.8C Graph in the first quadrant of the coordinate plane ordered pairs of numbers arising from mathematical and real-world problems, including those generated by number patterns or found in an input output table.</li></ul>
	Part 2 Suggested Pacing: Mar. 29-30 Extend Review Assess Reteach Mar. 31 – Apr. 1	<ul> <li>Part 2: Scatter Plots (2 lessons)</li> <li>Geometry and Measurement The student applies mathematical process standards to identify locations on a coordinate plane. (*) MATH.5.8C Graph in the first quadrant of the coordinate plane ordered pairs of numbers arising from mathematical and real-world problems, including those generated by number patterns or found in an input-output table. Data Analysis The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data. (*) MATH.5.9C Solve one- and two-step problems using data from a frequency table, dot plot, bar graph, stem-and-leaf plot, or <u>scatter plot</u>. </li> </ul>



2021-2022 Scope and Sequence

Mathematics – Grade 5

Cycle 5	33 Days	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days.
- Cycle C	Feb. 28 - Apr. 22	, 2022 Complete instructional planning information and support are in the HISD Curriculum documents.
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Unit 18: Personal Financial Literacy Students will understand how financial information, such as taxes, income, methods of payments, financial records, and budgets, can be used to help one manage their financial resources effectively.	4 90-minute lessons Learning Recovery Days Apr. 4-5 STAAR- Released Assessment Suggested Window: Apr. 4-22 2021 Released Assessment Suggested Pacing: Apr. 6-11 Extend Review Assess Reteach Apr. 12-14 Spring Holiday Apr. 15	<ul> <li>Personal Financial Literacy (4 lessons)</li> <li>Personal Financial Literacy</li> <li>The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security.</li> <li>(a) MATH.5.10A Define income tax, payroll tax, sales tax, and property tax.</li> <li>(b) MATH.5.10B Explain the difference between gross income and net income.</li> <li>MATH.5.10C Identify the advantages and disadvantages of different methods of payment, including check, credit card, debit card, and electronic payments.</li> <li>MATH.5.10D Develop a system for keeping and using financial records.</li> <li>(c) MATH.5.10F Beacribe actions that might be taken to balance a budget when expenses exceed income.</li> <li>(c) MATH.5.10F Balance a simple budget.</li> <li>Number and Operations</li> <li>The student applies mathematical process standards to develop and use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy.</li> <li>(c) MATH.5.3K Add and subtract positive rational numbers fluently.</li> </ul>



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2021-2022 Scope and Sequence

Mathematics – Grade 5

Cyclo 5	33 Days	The recommended number of lessons is less than the number of days in the grading cycle to
Cycle 5	Feb. 28 - Apr. 22,	2022 Complete instructional planning information and support are in the HISD Curriculum documents.
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Unit 19: Cumulative Review Students will receive differentiated instruction based on areas of need according to assessment data.	5 90-minute lessons Suggested Pacing: Apr. 18-22 <u>STAAR- Released Assessment</u> Suggested Window: Apr. 4-22 2021 Released Assessment	Cumulative Review, Part 1 (5 lessons) MATH.5.1A–MATH.5.10F During this unit, teachers will gather individual student data from various campus and district-level assessments administered during the academic year. Teachers will review student progress tracking records to determine individual student areas of need to be addressed during the cumulative review. Students should be placed in small groups according to student expectations and receive immediate feedback during the re-teaching of lessons. Teachers will model various problem-solving strategies to allow students to choose the strategy they are most comfortable with and, thereafter, replicate independently.

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#### 2021-2022 Scope and Sequence

Mathematics – Grade 5

Cycle 6	31 Days	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days.
- Cycle C	Apr. 25 - June 7,	Complete instructional planning information and support are in the HISD Curriculum documents.
Unit	Lessons	The student will:
Mathematical Process Standards Unit planning guides identify Process Standards that align to and support the development of the content standards covered in each unit. *See unit planning guides for a list of recommended process standards specific to each unit of study.	Embedding process standards throughout all units of study supports students' development of mathematical proficiency. Renaissance 360 Screener EOY Sept. 3-20	<ul> <li>Mathematical Process Standards</li> <li>The student uses mathematical processes to acquire and demonstrate mathematical understanding.</li> <li>MATH.5.1A Apply mathematics to problems arising in everyday life, society, and the workplace.</li> <li>MATH.5.1B 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.</li> <li>MATH.5.1C Select tools, including real objects, manipulatives, paper/pencil, and technology as appropriate, and techniques, including mental math, estimation, and number sense as appropriate, to solve problems.</li> <li>MATH.5.1D Communicate mathematical ideas, reasoning, and their implications using multiple representations to organize, record, and communicate mathematical ideas.</li> <li>MATH.5.1F Analyze mathematical relationships to connect and communicate mathematical ideas.</li> <li>MATH.5.1G Display, explain, and justify mathematical ideas and arguments using precise mathematical language in written or oral communication.</li> </ul>
Unit 19: Cumulative Review Students will receive differentiated instruction based on areas of need according to assessment data.	10 90-minute lessons Suggested Pacing: Apr. 25 – May 6 Extend Review Assess Reteach May 9-12 STAAR Math May 10	Cumulative Review, Part 2 (10 lessons) MATH.5.1A–MATH.5.10F During this unit, teachers will gather individual student data from various campus and district-level assessments administered during the academic year. Teachers will review student progress tracking records to determine individual student areas of need to be addressed during the cumulative review. Students should be placed in small groups according to student expectations and receive immediate feedback during the re-teaching of lessons. Teachers will model various problem-solving strategies to allow students to choose the strategy they are most comfortable with and, thereafter, replicate independently.

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#### 2021-2022 Scope and Sequence

Mathematics – Grade 5

Cycle 6	31 Days	The recommended number of lessons is less than the number of days in the grading cycle to accommodate differentiated instruction, extended learning time, and assessment days.
- Oyele U	Apr. 25 - June 7,	Complete instructional planning information and support are in the HISD Curriculum documents.
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SES) The student will:
Unit 20: Addition and Subtraction Review Students will use concrete objects, pictorial models, and properties of operations to represent and solve problems involving addition and subtraction of fractions with unequal denominators. Students will simplify numerical expressions involving the addition and subtraction of positive rational numbers	4 90-minute lessons Suggested Pacing: May 13-18	<ul> <li>Addition and Subtraction Review (4 lessons)</li> <li>Number and Operations The student applies mathematical process standards to develop and use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy. (a) MATH.5.3A Estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division with whole numbers, fractions, and decimals. (a) MATH.5.3H Represent and solve addition and subtraction of fractions with unequal denominators referring to the same whole using objects and pictorial models and properties of operations. (b) MATH.5.3K Add and subtract positive rational numbers fluently. Algebraic Reasoning The student applies mathematical process standards to develop concepts of expressions and equations. (a) MATH.5.4E Describe the meaning of parentheses and brackets in a numeric expression. (b) MATH.5.4F Simplify numerical expressions that do not involve exponents, including up to two levels of grouping.</li></ul>
Unit 21: Decimal Multiplication and Division Review Students will use pictorial models, including area models, and strategies based on place value understanding to represent and solve problems involving multiplication and division of decimals.	4 90-minute lessons Suggested Pacing: May 19-24	<ul> <li>Decimal Multiplication and Division Review (4 lessons)</li> <li>Number and Operations The student applies mathematical process standards to develop and use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy. (*) MATH.5.3A Estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division with whole numbers, fractions, and decimals. (*) MATH.5.3D Represent multiplication of decimals with products to the hundredths using objects and pictorial models, including area models. (*) MATH.5.3E Solve for products of decimals to the hundredths, including situations involving money, using strategies based on place-value understandings, properties of operations, and the relationship to the multiplication of whole numbers. (*) MATH.5.3F Represent quotients of decimals to the hundredths, up to four-digit dividends and two-digit whole number divisors, using objects and pictorial models, including area models. (*) MATH.5.3G Solve for quotients of decimals to the hundredths, up to four-digit dividends and two-digit whole number divisors, using objects and pictorial models, including area models. (*) MATH.5.3G Solve for quotients of decimals to the hundredths, up to four-digit dividends and two-digit whole number divisors, using strategies and algorithms, including the standard algorithm.</li></ul>



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#### 2021-2022 Scope and Sequence

Mathematics – Grade 5

Cycle 6	<b>31 Days</b> Apr. 25 - June 7,	The recommended number of lessons 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.
Unit	Number of Lessons	Texas Essential Knowledge and Skills/Student Expectations (TEKS/SEs) The student will:
Unit 22: Fraction Multiplication and Division Review Students will use pictorial models, including area models, and strategies based on place value understanding to represent and solve problems involving multiplication and division of fractions.	4 90-minute lessons Suggested Pacing: May 25-31 Memorial Day May 30	<ul> <li>Fraction Multiplication and Division Review (4 lessons)</li> <li>Number and Operations The student applies mathematical process standards to develop and use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy. (9) MATH.5.3A Estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, <u>multiplication</u>, or <u>division</u> with whole numbers, <u>fractions</u>, and decimals. (9) MATH.5.3I Represent and solve multiplication of a whole number and a fraction that refers to the same whole using objects and pictorial models, including area models. (9) MATH.5.3J Represent division of a unit fraction by a whole number and the division of a whole number by a unit fraction such as 1/3 ÷ 7 and 7 ÷ 1/3 using objects and pictorial models, including area models. (9) MATH.5.3L Divide whole numbers by unit fractions and unit fractions by whole numbers.</li></ul>
Unit 23: Simplify Numerical Expressions Review Students will use the order of operations to simplify numerical expressions with all four operations.	4 90-minute lessons Suggested Pacing: June 1-6 Extend Review Assess Reteach June 7 Teacher Prep Day (no students) June 8	<ul> <li>Simplify Numerical Expressions Review (4 lessons)</li> <li>Number and Operations         <ul> <li>The student applies mathematical process standards to develop and use strategies and methods for positive rational number computations in order to solve problems with efficiency and accuracy.</li> <li>MATH.5.3K Add and subtract positive rational numbers fluently.</li> </ul> </li> <li>Algebraic Reasoning         <ul> <li>The student applies mathematical process standards to develop concepts of expressions and equations.</li> <li>MATH.5.4E Describe the meaning of parentheses and brackets in a numeric expression.</li> <li>MATH.5.4F Simplify numerical expressions that do not involve exponents, including up to two levels of grouping.</li> </ul> </li> </ul>

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