Introduction

Unique Learning System and News2you maintain alignment with state standards through instructional targets. These targets are the bridge between the general content standards adopted by a state and relevant curriculum content for students with significant disabilities. For students with significant cognitive disabilities, access and participation in the state's adopted content standards are generally addressed through extended standards, which may be reduced in depth and breadth. The n2y Instructional Targets have been developed and are continually updated based on studies of standards across all 50 states. This document is provided as a tool to assist you in evaluating alignment of the n2y Instructional Targets to the Texas Essential Knowledge and Skills for Mathematics* and STAAR Alternate 2 Essence Statements*.

*Informational sources : https://texreg.sos.state.tx.us/public/readtac$ext.ViewTAC?tac_view=4&ti=19&pt=2&ch=111
https://tea.texas.gov/student-assessment/testing/staar-alternate/staar-alternate-2-resources

The chart below describes the sections of this alignment document. Each instructional target is addressed in one or more of the unit lessons throughout the year. Additionally, differentiated task descriptors are provided to define how students with diverse abilities will have access to essential content of the standards. Lesson plans and materials within Unique and News2you ensure the most rigorous alignment possible.

<table>
<tr><th colspan="2">Domain</th><th>Grade Band</th></tr>
<tr><td colspan="2">Texas Essential Knowledge and Skills for Mathematics</td><td>STAAR Alternate 2 Essence Statements</td></tr>
<tr><td colspan="2">The Texas Essential Knowledge and Skills (TEKS) are listed in this section.</td><td>The STAAR Alternate 2 Essence Statements are listed in this section.</td></tr>
<tr><td>Unique Instructional Targets</td><td>n2y Grade Band Lessons and Activities</td><td>n2y Supporting Activities</td></tr>
<tr><td rowspan="4">Instructional Targets reflect the essential content of grade level standards.</td><td>Unique</td><td>Unique</td></tr>
<tr><td>Lessons that address instructional targets are listed in this section. Lessons from Unique units maintain a consistent format so that most instructional targets are taught each month.</td><td>Unique's supporting tools and guides supplement the unit lessons. Pertinent supports are listed in this section.</td></tr>
<tr><td>News2you</td><td>News2you</td></tr>
<tr><td>Weekly activities and lessons, which provide practice for Instructional Targets, are listed in this section.</td><td>Supporting activities and lessons, which provide practice for Instructional Targets, are listed in this section.</td></tr>
<tr><td colspan="3">n2y Differentiated Tasks
Differentiated task descriptors ensure that students with a wide variety of learning abilities and needs are able to access, participate in, and progress through standards-based activities.
Differentiated task descriptors are written in student performance terminology.</td></tr>
<tr><td>Level 3</td><td>Level 2</td><td>Level 1</td></tr>
<tr><td>● Students at this level are expected to reach the highest level of independence.</td><td>● Students at this level will likely require support in all learning activities.</td><td>● Students at this level require maximum support in learning. Increasing participation is the primary goal.</td></tr>
</table>

Standards for Counting and Cardinality — Grades K–2

Texas Essential Knowledge and Skills for Mathematics	STAAR Alternate 2 Essence Statements
Kindergarten	*The STAAR Alternate 2 Essence Statements begin in grade 3.*
(2) Number and operations. The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system. The student is expected to: K.2.A Count forward and backward to at least 20 with and without objects.	
K.2.B Read, write, and represent whole numbers from 0 to at least 20 with and without objects or pictures.	
K.2.C Count a set of objects up to at least 20 and demonstrate that the last number said tells the number of objects in the set regardless of their arrangement or order.	
K.2.D Recognize instantly the quantity of a small group of objects in organized and random arrangements.	
K.2.E Generate a set using concrete and pictorial models that represents a number that is more than, less than, and equal to a given number up to 20.	
K.2.F Generate a number that is one more than or one less than another number up to at least 20.	
K.2.G Compare sets of objects up to at least 20 in each set using comparative language.	
K.2.H Use comparative language to describe two numbers up to 20 presented as written numerals.	
1st Grade	
(2) Number and operations. The student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to: 1.2.A Recognize instantly the quantity of structured arrangements.	

n2y Instructional Targets	n2y Elementary Grade Band Lessons and Activities	n2y Supporting Activities
Know number names and the count sequence. ● Count by ones to 10, 20 and 100. ● Count by 10s to 100. ● Read and write numerals to 10 and 20. ● Count forward beginning from a given number in a sequence. ***Count to tell the number of objects.*** ● Demonstrate one-to-one correspondence when counting. ● Count a number of objects to tell *how many*. ***Compare numbers.*** ● Indicate whether the number of objects in one group is more, less or *equal to* the number of objects in another group.	**Unique** Number Sense (Lesson 19) Graphing (Lesson 20)	**Unique** ULS Instructional Tools: Math Pack/Numbers ULS Instructional Guides: Mathematics Manipulative pictures Standards Connection **News2you** Activities: Dot-to-Dot Activities: Patchwork Math Activities: Which is Greater? Activities: Math Sets Joey's Locker: Connect the Dots Joey's Locker: Let's Count

n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● Students will independently count a number of objects. ● Students will independently count a number of objects by 10 up to 100. ● Students will independently read and write numerals to 20. ● Students will independently count forward beginning from a given number. ● Students will identify the number of each object when counting. ● Students will count a number of objects and identify the associated numeral. ● Students will count objects in two defined groups and determine which group contains more or less than the other or whether the groups are equal.	● Students will count a number of objects with support. ● Students will count a number of objects by 10 up to 100 with support. ● Students will read and write numerals to 20 with support. ● Students will count forward from a number with support (e.g., number line or other visual supports). ● Students will match objects to a corresponding number (one-to-one match) to count. ● Students will count and report the total number of objects in a set with support. ● Students will pair objects from two groups to determine which group has more or less than the other or whether the groups are equal.	● Students will count to a given number through an active participation response (e.g., voice output device, eye gaze, choice board). ● Students will count by 10s to a given number through an active participation response (e.g., voice output device, eye gaze, choice board). ● Students will select and write numerals to 20 through an active participation response. ● Students will participate in a counting forward activity by selecting the number counted from a narrowed field or errorless choice(s). ● Students will participate in counting by matching an object to a number through an active participation response. ● With support, students will count and report the total number of objects in a set using active participation (e.g., voice output device, eye gaze, choice board). ● Students will select numbers from a narrowed field or errorless choice(s) to count and compare numbers within a math problem involving the concepts of more and less.

Standards for Operations and Algebraic Thinking	Grades K–2
Texas Essential Knowledge and Skills for Mathematics	**STAAR Alternate 2 Essence Statements**
Kindergarten	*The STAAR Alternate 2 Essence Statements begin in grade 3.*
(2) Number and operations. The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system. The student is expected to: K.2.I Compose and decompose numbers up to 10 with objects and pictures.	
(3) Number and operations. The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to: K.3.A Model the action of joining to represent addition and the action of separating to represent subtraction.	
K.3.B Solve word problems using objects and drawings to find sums up to 10 and differences within 10.	
K.3.C Explain the strategies used to solve problems involving adding and subtracting within 10 using spoken words, concrete and pictorial models, and number sentences.	
1st Grade	
(3) Number and operations. The student applies mathematical process standards to develop and use strategies for whole number addition and subtraction computations in order to solve problems. The student is expected to: 1.3.A Use concrete and pictorial models to determine the sum of a multiple of 10 and a one-digit number in problems up to 99.	
1.3.B Use objects and pictorial models to solve word problems involving joining, separating, and comparing sets within 20 and unknowns as any one of the terms in the problem such as 2 + 4 = [ ]; 3 + [ ] = 7; and 5 = [ ] - 3.	
1.3.C Compose 10 with two or more addends with and without concrete objects.	
1.3.D Apply basic fact strategies to add and subtract within 20, including making 10 and decomposing a number leading to a 10.	
1.3.E Explain strategies used to solve addition and subtraction problems up to 20 using spoken words, objects, pictorial models, and number sentences.	
1.3.F Generate and solve problem situations when given a number sentence involving addition or subtraction of numbers within 20.	
(5) Algebraic reasoning. The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to: 1.5.D Represent word problems involving addition and subtraction of whole numbers up to 20 using concrete and pictorial models and number sentences.	
1.5.E Understand that the equal sign represents a relationship where expressions on each side of the equal sign represent the same value(s).	
1.5.F Determine the unknown whole number in an addition or subtraction equation when the unknown may be any one of the three or four terms in the equation.	
2nd Grade	
(4) Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve addition and subtraction problems with efficiency and accuracy. The student is expected to: 2.4.A Recall basic facts to add and subtract within 20 with automaticity.	
(6) Number and operations. The student applies mathematical process standards to connect repeated addition and subtraction to multiplication and division situations that involve equal groupings and shares. The student is expected to: 2.6.A Model, create, and describe contextual multiplication situations in which equivalent sets of concrete objects are joined.	

2.6.B Model, create, and describe contextual division situations in which a set of concrete objects is separated into equivalent sets.		
n2y Instructional Targets	**n2y Elementary Grade Band Lessons and Activities**	**n2y Supporting Activities**
Building Blocks to Generate and Analyze Patterns ● Extend the sequence of a nonnumeric pattern. ***Represent and solve problems involving addition and subtraction.*** ● Model putting together (addition, more, equal) and taking away (subtraction, less, equal) with objects and representations. ● Solve real-life addition and subtraction problems within the ranges of 1–10 and 1–20. ● Understand and use +, –, and = symbols when solving problems. ● Find the unknown number in a math sentence. ***Understand and apply properties of operations and the relationship between addition and subtraction.*** ● Understand and use the count on and count backwards strategies to add and subtract. ***Work with equal groups of objects to gain foundations for multiplication.*** ● Share equal numbers of objects between 2 and 4 people. ● Add to find a total number in an array (e.g., 3 rows, 3 columns).	**Unique** Number Sense (Lesson 19) Algebra/Patterns (Lesson 25)	**Unique** ULS Instructional Guides: Mathematics ULS Instructional Tools: Math Pack/Numbers Manipulative Pictures Standards Connection **News2you** Activities: Vertical Addition Activities: Vertical Subtraction Activities: Writing Addition Problems Activities: Patchwork Addition Activities: Patchwork Subtraction Activities: Word Problems Activities: Multiplication
n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● Students will extend the sequence of a nonnumeric pattern. ● Students will independently use objects to model the process of adding or subtracting. ● Students will add and subtract numbers within the context of a real-world scenario. ● Students will read, write and solve a math sentence. ● Students will add or subtract to find the unknown number in a math sentence. ● Students will independently count on or count backwards to add or subtract using objects or concrete representations (e.g., number line, objects, etc.). ● Students will independently count an equal number of objects into groups or an array to solve a real-life problem. ● Students will independently add the number of objects in an array.	● Students will continue the sequence in a pattern of objects with support. ● Students will use models or objects to represent numbers in an addition or subtraction problem with support. ● Students will use models or objects to add or subtract in the context of a real-world scenario. ● Students will record pictures and numbers to model and solve a math sentence. ● Students will use models or objects to find the unknown number in a math sentence. ● With support, students will count on or count backwards to add or subtract using objects or concrete representations (e.g., number line, objects, etc.). ● Students will sort a given number of objects into equal groups or an array. ● Students will count the total number of objects in an array with support.	● Students will select an object to represent what's next in a pattern. ● Students will select objects from a narrowed field or errorless choice(s) to match the numbers in an addition or subtraction problem. ● Students will participate in adding or subtracting by counting sets of objects through an active participation response (e.g., voice output device, eye gaze, choice board). ● Students will select a number from a narrowed field or errorless choice(s) to represent numbers within a math sentence. ● Students will participate in finding the unknown number in a math sentence by counting sets of objects through an active participation response (e.g., voice output device, eye gaze, choice board). ● Students will participate in counting on or counting backwards to add or subtract using objects or concrete representations (e.g., number line, objects, etc.) with support. ● Students will select a number of objects to put into a group. ● Students will count the number of objects in an array through an active participation response.

Standards for Numbers and Operations in Base Ten	Grades K–2
Texas Essential Knowledge and Skills for Mathematics	**STAAR Alternate 2 Essence Statements**
Kindergarten	*The STAAR Alternate 2 Essence Statements begin in grade 3.*
(5) Algebraic reasoning. The student applies mathematical process standards to identify the pattern in the number word list. The student is expected to K.5 Recite numbers up to at least 100 by ones and tens beginning with any given number.	
1st Grade	
(2) Number and operations. The student applies mathematical process standards to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to: 1.2.B Use concrete and pictorial models to compose and decompose numbers up to 120 in more than one way as so many hundreds, so many tens, and so many ones.	
1.2.C Use objects, pictures, and expanded and standard forms to represent numbers up to 120.	
1.2.D Generate a number that is greater than or less than a given whole number up to 120.	
1.2.E Use place value to compare whole numbers up to 120 using comparative language.	
1.2.F Order whole numbers up to 120 using place value and open number lines.	
1.2.G Represent the comparison of two numbers to 100 using the symbols >, <, or =.	
(5) Algebraic reasoning. The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to: 1.5.A Recite numbers forward and backward from any given number between 1 and 120.	
1.5.B Skip count by twos, fives, and tens to determine the total number of objects up to 120 in a set.	
1.5.C Use relationships to determine the number that is 10 more and 10 less than a given number up to 120.	
1.5.G Apply properties of operations to add and subtract two or three numbers.	
2nd Grade	
(2) Number and operations. The student applies mathematical process standards to understand how to represent and compare whole numbers, the relative position and magnitude of whole numbers, and relationships within the numeration system related to place value. The student is expected to: 2.2.A Use concrete and pictorial models to compose and decompose numbers up to 1,200 in more than one way as a sum of so many thousands, hundreds, tens, and ones.	
2.2.B Use standard, word, and expanded forms to represent numbers up to 1,200.	
2.2.C Generate a number that is greater than or less than a given whole number up to 1,200.	
2.2.D Use place value to compare and order whole numbers up to 1,200 using comparative language, numbers, and symbols (>, <, or =).	
2.2.E Locate the position of a given whole number on an open number line.	
2.2.F Name the whole number that corresponds to a specific point on a number line.	

(4) Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve addition and subtraction problems with efficiency and accuracy. The student is expected to: 2.4.B Add up to four two-digit numbers and subtract two-digit numbers using mental strategies and algorithms based on knowledge of place value and properties of operations.		
2.4.C Solve one-step and multi-step word problems involving addition and subtraction within 1,000 using a variety of strategies based on place value, including algorithms.		
2.4.D Generate and solve problem situations for a given mathematical number sentence involving addition and subtraction of whole numbers within 1,000.		
(7) Algebraic reasoning. The student applies mathematical process standards to identify and apply number patterns within properties of numbers and operations in order to describe relationships. The student is expected to: 2.7.A Determine whether a number up to 40 is even or odd using pairings of objects to represent the number.		
2.7.B Use an understanding of place value to determine the number that is 10 or 100 more or less than a given number up to 1,200.		
2.7.C Represent and solve addition and subtraction word problems where unknowns may be any one of the terms in the problem.		
n2y Instructional Targets	**n2y Elementary Grade Band Lessons and Activities**	**n2y Supporting Activities**
Understand place value. ● Model to show understanding of tens and ones in a two-digit number (e.g., 26 is a bundle of two tens and six ones). ● Skip count by 2s and 5s to 20 and 50; by 10s to 20, 50 and 100. ● Compare two numbers to determine >, < or =. ***Use place value understanding and properties of operations to add and subtract.*** ● Build strategies to add or subtract two-digit numbers.	**Unique** Number Sense (Lesson 19) Graphing (Lesson 20) Algebra/Patterns (Lesson 25)	**Unique** ULS Instructional Guides: Mathematics ULS Instructional Tools: Math Pack/Numbers ULS Instructional Tools: Math Pack/Arrays Manipulative pictures Standards Connection **News2you** Activities: Math Sets; Which is Greater?; What Comes Next? Activities: Higher Addition; Higher Subtraction Activities: Graphing A & B; Food Graph
n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● Students will model and identify the number of 10s and 1s in a two-digit number. ● Students will skip count (by 2s, 5s or 10s) to a given number (20, 50, 100). ● Students will compare numbers to 20 to determine more, less or equal. ● Students will add and subtract numbers with concrete representations using more than one strategy (e.g,. ten frames, base-ten blocks, number line, etc.).	● Students will model tens and ones in a two-digit number with support. ● Students will use a model to skip count by 2s, 5s and 10s. ● Students will compare numbers to 20 with a model to determine more, less or equal. ● Students will add and subtract numbers with concrete representations using more than one strategy (e.g. ten frames, base-ten blocks, number line, etc.) with support.	● Students will count a group of 10s and remaining 1s through an active participation response (e.g., voice output device, eye gaze choice board). ● Students will count objects and form groups of 2s, 5s and 10s through an active participation response (e.g., voice output device, eye gaze, choice board). ● Students will compare two sets of objects to determine more, less or equal. ● Students will add and subtract numbers with concrete representations using more than one strategy (e.g,. ten frames, base-ten blocks, number line) by making a selection from a narrowed field or errorless choice(s).

Standards for Measurement and Data	Grades K–2
Texas Essential Knowledge and Skills for Mathematics	**STAAR Alternate 2 Essence Statements**
Kindergarten	*The STAAR Alternate 2 Essence Statements begin in grade 3.*
(4) Number and operations. The student applies mathematical process standards to identify coins in order to recognize the need for monetary transactions. The student is expected to: K.4 Identify U.S. coins by name, including pennies, nickels, dimes, and quarters.	
(7) Geometry and measurement. The student applies mathematical process standards to directly compare measurable attributes. The student is expected to: K.7.A Give an example of a measurable attribute of a given object, including length, capacity, and weight.	
K.7.B Compare two objects with a common measurable attribute to see which object has more of/less of the attribute and describe the difference.	
(8) Data analysis. The student applies mathematical process standards to collect and organize data to make it useful for interpreting information. The student is expected to: K.8.A Collect, sort, and organize data into two or three categories.	
K.8.B Use data to create real-object and picture graphs.	
K.8.C Draw conclusions from real-object and picture graphs.	
1st Grade	
(4) Number and operations. The student applies mathematical process standards to identify coins, their values, and the relationships among them in order to recognize the need for monetary transactions. The student is expected to: 1.4.A Identify U.S. coins, including pennies, nickels, dimes, and quarters, by value and describe the relationships among them.	
1.4.B Write a number with the cent symbol to describe the value of a coin.	
1.4.C Use relationships to count by twos, fives, and tens to determine the value of a collection of pennies, nickels, and/or dimes.	
(7) Geometry and measurement. The student applies mathematical process standards to select and use units to describe length and time. The student is expected to: 1.7.A Use measuring tools to measure the length of objects to reinforce the continuous nature of linear measurement.	
1.7.B Illustrate that the length of an object is the number of same-size units of length that, when laid end-to-end with no gaps or overlaps, reach from one end of the object to the other.	
1.7.C Measure the same object/distance with units of two different lengths and describe how and why the measurements differ.	
1.7.D Describe a length to the nearest whole unit using a number and a unit.	
1.7.E Tell time to the hour and half hour using analog and digital clocks.	
(8) Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to: 1.8.A Collect, sort, and organize data in up to three categories using models/representations such as tally marks or T-charts.	
1.8.B Use data to create picture and bar-type graphs.	
1.8.C Draw conclusions and generate and answer questions using information from picture and bar-type graphs.	

2nd Grade	
(5) Number and operations. The student applies mathematical process standards to determine the value of coins in order to solve monetary transactions. The student is expected to: 2.5.A Determine the value of a collection of coins up to one dollar.	
2.5.B Use the cent symbol, dollar sign, and the decimal point to name the value of a collection of coins.	
(9) Geometry and measurement. The student applies mathematical process standards to select and use units to describe length, area, and time. The student is expected to: 2.9.A Find the length of objects using concrete models for standard units of length.	
2.9.B Describe the inverse relationship between the size of the unit and the number of units needed to equal the length of an object.	
2.9.C Represent whole numbers as distances from any given location on a number line.	
2.9.D Determine the length of an object to the nearest marked unit using rulers, yardsticks, meter sticks, or measuring tapes.	
2.9.E Determine a solution to a problem involving length, including estimating lengths.	
2.9.F Use concrete models of square units to find the area of a rectangle by covering it with no gaps or overlaps, counting to find the total number of square units, and describing the measurement using a number and the unit.	
2.9.G Read and write time to the nearest one-minute increment using analog and digital clocks and distinguish between a.m. and p.m.	
(10) Data analysis. The student applies mathematical process standards to organize data to make it useful for interpreting information and solving problems. The student is expected to: 2.10.A Explain that the length of a bar in a bar graph or the number of pictures in a pictograph represents the number of data points for a given category.	
2.10.B Organize a collection of data with up to four categories using pictographs and bar graphs with intervals of one or more.	
2.10.C Write and solve one-step word problems involving addition or subtraction using data represented within pictographs and bar graphs with intervals of one.	
2.10.D Draw conclusions and make predictions from information in a graph.	

n2y Instructional Targets	n2y Elementary Grade Band Lessons and Activities	n2y Supporting Activities
Measure and estimate lengths in standard units. ● Compare two lengths and use appropriate vocabulary to describe (short, long, etc.). ● Use nonstandard units to estimate and measure the length of an object. ● Use standard measurements to measure the length of an object (inches, feet, etc.). ***Work with time and money.*** ● Use time concept vocabulary to describe personal activities and schedules (first and then; today, tomorrow, yesterday and days of the week, etc.). ● Tell time to hour, half-hour, quarter-hour and five-minute intervals. ● Identify and count coins and dollars to solve word problems. ***Represent and interpret data.*** ● Gather and sort data in response to questions. ● Display data in picture graphs. ● Answer questions about information in a graph.	**Unique** Graphing (Lesson 20) Measure It! (Lesson 21: Craft) Money (Lesson 22) Telling Time (Lesson 23) Direction Following (Lesson 26: Recipe) History Timeline (Lesson 29) Core Task 1.1: Daily Schedules Core Task 1.2: Monthly Calendars Core Task 4.1: Calendar (Circle Time)	**Unique** ULS Instructional Guides: Mathematics ULS Instructional Tools: Math Pack/Time ULS Instructional Tools: Math Pack/Money Standards Connection **News2you** Activities: What is the Time? A, B and C Activities: Counting Money Activities: Dollars & Cents Activities: Making Change Activities: Graphing A & B Activities: Food Graph

n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● Students will select and use appropriate measurement tools for a purpose. ● Students will use standard units to measure and compare the length of objects. ● Students will identify days of the week in relation to a sequence of activities. ● Within a real-world scenario, students will tell time to the hour, half-hour, quarter-hour and five-minute intervals on digital or analog clocks. ● Students will recognize and count coins and bills for an amount discussed in a real-world scenario. ● Students will ask and answer questions to gather data. ● Students will sort, display and count data on a graph.	● Students will use nonstandard units to measure and compare the lengths of objects. ● Students will use measurement tools for a specific task. ● Students will identify today, tomorrow, and yesterday in relation to daily activities. ● Within a real-world scenario, students will identify time on digital or analog clocks with support. ● Students will use coins or bills to match a price within a real-world scenario. ● Using picture supports, students will ask and answer questions to gather data. ● Students will sort picture data on a graph.	● Students will compare the length of two objects and indicate which is longer or shorter. ● Students will select a measurement tool for an activity. ● Students will select the day of the week as part of a daily schedule. ● Students will select a time as part of a real-world scenario or personal schedule. ● Students will select coins or bills within a real-world scenario through an active participation response (e.g., voice output device, eye gaze choice board). ● Students will ask a question to gather data, through an active participation response (e.g., voice output device, eye gaze choice board). ● Students will select a picture to display on a data graph.

Standards for Geometry	Grades K–2
Texas Essential Knowledge and Skills for Mathematics	**STAAR Alternate 2 Essence Statements**
Kindergarten	*The STAAR Alternate 2 Essence Statements begin in grade 3.*
(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to: K.6.A Identify two-dimensional shapes, including circles, triangles, rectangles, and squares as special rectangles.	
K.6.B Identify three-dimensional solids, including cylinders, cones, spheres, and cubes, in the real world.	
K.6.C Identify two-dimensional components of three-dimensional objects.	
K.6.D Identify attributes of two-dimensional shapes using informal and formal geometric language interchangeably.	
K.6.E Classify and sort a variety of regular and irregular two- and three-dimensional figures regardless of orientation or size.	
K.6.F Create two-dimensional shapes using a variety of materials and drawings.	
1st Grade	
(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to: 1.6.A Classify and sort regular and irregular two-dimensional shapes based on attributes using informal geometric language.	
1.6.B Distinguish between attributes that define a two-dimensional or three-dimensional figure and attributes that do not define the shape.	
1.6.C Create two-dimensional figures, including circles, triangles, rectangles, and squares, as special rectangles, rhombuses, and hexagons.	
1.6.D Identify two-dimensional shapes, including circles, triangles, rectangles, and squares, as special rectangles, rhombuses, and hexagons and describe their attributes using formal geometric language.	
1.6.E Identify three-dimensional solids, including spheres, cones, cylinders, rectangular prisms (including cubes), and triangular prisms, and describe their attributes using formal geometric language.	
1.6.F Compose two-dimensional shapes by joining two, three, or four figures to produce a target shape in more than one way if possible.	
1.6.G Partition two-dimensional figures into two and four fair shares or equal parts and describe the parts using words.	
1.6.H Identify examples and non-examples of halves and fourths.	
2nd Grade	
(3) Number and operations. The student applies mathematical process standards to recognize and represent fractional units and communicates how they are used to name parts of a whole. The student is expected to: 2.3.A Partition objects into equal parts and name the parts, including halves, fourths, and eighths, using words.	
2.3.B Explain that the more fractional parts used to make a whole, the smaller the part; and the fewer the fractional parts, the larger the part.	
2.3.C Use concrete models to count fractional parts beyond one whole using words and recognize how many parts it takes to equal one whole.	
2.3.D Identify examples and non-examples of halves, fourths, and eighths.	
(8) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional shapes and three-dimensional solids to develop generalizations about their properties. The student is expected to: 2.8.A Create two-dimensional shapes based on given attributes, including number of sides and vertices.	
2.8.B Classify and sort three-dimensional solids, including spheres, cones, cylinders, rectangular prisms (including cubes as special rectangular prisms), and triangular prisms, based on attributes using formal geometric language.	
2.8.C Classify and sort polygons with 12 or fewer sides according to attributes, including identifying the number of sides and number of vertices.	

2.8.D Compose two-dimensional shapes and three-dimensional solids with given properties or attributes.		
2.8.E Decompose two-dimensional shapes such as cutting out a square from a rectangle, dividing a shape in half, or partitioning a rectangle into identical triangles and identify the resulting geometric parts.		
n2y Instructional Targets	**n2y Elementary Grade Band Lessons and Activities**	**n2y Supporting Activities**
Identify and describe shapes. ● Recognize two- and three-dimensional shapes in the environment. ● Describe positions of objects and shapes in the environment with positional vocabulary (in, on, under, beside, etc.). ***Reason with shapes and their attributes.*** ● Identify shapes as two-dimensional (flat) or three-dimensional (solid). ● Identify basic two-dimensional shapes by name (square, circle, triangle, rectangle, etc.) and describe attributes (number of sides, corners, etc.). ● Identify basic three-dimensional shapes by name (cubes, rectangular prisms, cones, cylinders and spheres) and describe attributes (number of edges, faces, etc.). ● Compare two- or three-dimensional shapes and describe their similarities and differences. ● Compose a large shape from smaller shapes. ● Partition circles and rectangles into two, three or four parts (halves, thirds, fourths).	**Unique** Geometry/Spatial Sense (Lesson 24)	**Unique** ULS Instructional Guides: Mathematics ULS Instructional Tools: Math Pack/Shapes Standards Connection **News2you** Activities: Read & Do
n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● Students will independently identify shapes within the environment. ● Students will independently describe the position of an object in the environment. ● Students will independently sort two-dimensional and three-dimensional shapes. ● Students will independently identify and describe two-dimensional shapes. ● Students will independently identify and describe three-dimensional shapes. ● Students will independently describe the similarities and differences between two or more shapes. ● Students will independently build a large shape from smaller shapes. ● Students will independently partition a shape into two, three or four equal parts and label as halves, thirds or fourths.	● Students will match an object in the environment with a shape. ● Students will identify the position of an object in the environment with support. ● Students will sort two-dimensional and three-dimensional shapes with support. ● Students will match like two-dimensional shapes. ● Students will match like three-dimensional shapes. ● Students will identify the similarities and differences between two shapes with support. ● Students will match small shapes to build a larger shape. ● Students will partition a shape into two, three or four equal parts with support.	● Students will select a named shape in the environment from a narrowed field or errorless choice(s). ● Students will select the position of an object in the environment from a narrowed field or errorless choice(s). ● Students will select a two-dimensional or three-dimensional shape from a narrowed field or errorless choice(s). ● Students will select named two-dimensional shapes. ● Students will select named three-dimensional shapes. ● Students will compare two shapes by selecting a shared attribute from a narrowed field or errorless choice(s). ● Students will make a selection to build a large shape. ● Students will participate in partitioning a shape.

Standards for Operations and Algebraic Thinking	Grades 3–5
Texas Essential Knowledge and Skills for Mathematics	**STAAR Alternate 2 Essence Statements**
3rd Grade	***3rd Grade***
(4) Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve problems with efficiency and accuracy. The student is expected to: 3.4.D Determine the total number of objects when equally-sized groups of objects are combined or arranged in arrays up to 10 by 10.	**Knowledge and Skills Statement (3.4) Number and operations**. The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve problems with efficiency and accuracy. (Supporting Standard) Essence Statement Identifies even or odd numbers. **Knowledge and Skills Statement (3.4) Number and operations.** The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve problems with efficiency and accuracy. (Readiness and Supporting Standard) Essence Statement Solves problems using operations involving whole numbers.
3.4.E Represent multiplication facts by using a variety of approaches such as repeated addition, equal-sized groups, arrays, area models, equal jumps on a number line, and skip counting.	
3.4.F Recall facts to multiply up to 10 by 10 with automaticity and recall the corresponding division facts.	
3.4.G Use strategies and algorithms, including the standard algorithm, to multiply a two-digit number by a one-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties.	
3.4.H Determine the number of objects in each group when a set of objects is partitioned into equal shares or a set of objects is shared equally.	
3.4.I Determine if a number is even or odd using divisibility rules.	
3.4.J Determine a quotient using the relationship between multiplication and division.	
3.4.K Solve one-step and two-step problems involving multiplication and division within 100 using strategies based on objects; pictorial models, including arrays, area models, and equal groups; properties of operations; or recall of facts.	
(5) Algebraic reasoning. The student applies mathematical process standards to analyze and create patterns and relationships. The student is expected to: 3.5.A Represent one- and two-step problems involving addition and subtraction of whole numbers to 1,000 using pictorial models, number lines, and equations.	**Knowledge and Skills Statement (3.5) Algebraic reasoning.** The student applies mathematical process standards to analyze and create patterns and relationships. (Readiness and Supporting Standard) Essence Statement Models or solves problems involving whole number relationships.
3.5.B Represent and solve one- and two-step multiplication and division problems within 100 using arrays, strip diagrams, and equations.	
3.5.C Describe a multiplication expression as a comparison such as 3 x 24 represents 3 times as much as 24.	
3.5.D Determine the unknown whole number in a multiplication or division equation relating three whole numbers when the unknown is either a missing factor or product.	
3.5.E Represent real-world relationships using number pairs in a table and verbal descriptions.	
4th Grade	***4th Grade***
(5) Algebraic reasoning. The student applies mathematical process standards to develop concepts of expressions and equations. The student is expected to: 4.5.A Represent multi-step problems involving the four operations with whole numbers using strip diagrams and equations with a letter standing for the unknown quantity.	**Knowledge and Skills Statement (4.4) Number and operations.** The student applies mathematical process standards to develop and use strategies and methods for whole number computations and decimal sums and differences in order to solve problems with efficiency and accuracy. (Readiness and Supporting Standard) Essence Statement Solves problems using operations involving whole numbers or decimals.
4.5.B Represent problems using an input-output table and numerical expressions to generate a number pattern that follows a given rule representing the relationship of the values in the resulting sequence and their position in the sequence.	

5th Grade	*5th Grade*
(3) 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. The student is expected to: 5.3.A Estimate to determine solutions to mathematical and real-world problems involving addition, subtraction, multiplication, or division.	**Knowledge and Skills Statement (5.3) 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. (Readiness and Supporting Standard) Essence Statement Solves problems using operations.
5.3.B Multiply with fluency a three-digit number by a two-digit number using the standard algorithm.	
5.3.C Solve with proficiency for quotients of up to a four-digit dividend by a two-digit divisor using strategies and the standard algorithm.	
5.3.D Represent multiplication of decimals with products to the hundredths using objects and pictorial models, including area models.	
5.3.E 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.	
5.3.F 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.	
5.3.G 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.	
5.3.H 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.	
5.3.I 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.	
5.3.J 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.	
5.3.K Add and subtract positive rational numbers fluently.	
5.3.L Divide whole numbers by unit fractions and unit fractions by whole numbers.	
(4) Algebraic reasoning. The student applies mathematical process standards to develop concepts of expressions and equations. The student is expected to: 5.4.A Identify prime and composite numbers.	**Knowledge and Skills Statement (5.4) Algebraic reasoning.** The student applies mathematical process standards to develop concepts of expressions and equations. (Readiness and Supporting Standard) Essence Statement Simplifies numeric expressions.
5.4.B Represent and solve multi-step problems involving the four operations with whole numbers using equations with a letter standing for the unknown quantity.	
5.4.C Generate a numerical pattern when given a rule in the form y = ax or y = x + a and graph.	
5.4.D Recognize the difference between additive and multiplicative numerical patterns given in a table or graph.	
5.4.E Describe the meaning of parentheses and brackets in a numeric expression.	
5.4.F Simplify numerical expressions that do not involve exponents, including up to two levels of grouping.	

n2y Instructional Targets	n2y Intermediate Grade Band Lessons and Activities	n2y Supporting Activities
Represent and solve problems involving multiplication and division. ● Model products of whole numbers (e.g., 3 x 2 as 3 groups with 2 objects in each group). ● Model whole number quotients (e.g., 16 / 8 as 16 objects placed in 8 groups with 2 in each group). ● Use multiplication and division of whole numbers to solve real-world story problems. ***Understand properties of multiplication and the relationship between multiplication and division.*** ● Apply properties of operations as strategies to multiply and divide. ***Multiply and divide within 100.*** ● Apply strategies to multiply and divide within 100. ***Solve problems involving the four operations, and identify and explain patterns in arithmetic.*** ● Identify and describe the rule for a number pattern. ***Use the four operations with whole numbers to solve problems.*** ● Solve problems (+, -, x or /) in which a symbol or letter represents an unknown (e.g., 4 + a = 10). ● Solve multi-step story problems containing whole numbers. ***Write and interpret numerical expressions.*** ● Write and solve a number problem based on a real-world situation. ● Identify which operation comes first when a calculation requires more than one operation. ***Generate and analyze patterns.*** ● Extend the sequence of a non-numeric pattern. ● Continue a sequence of numbers with a given rule (e.g., "add 2" relates to counting by 2s; "add 5" relates to counting by 5s).	**Unique** Number Sense (Lesson 16) Algebra/Patterns (Lesson 24)	**Unique** ULS Monthly Tools: Supporting Files/PowerPoint® Stories ULS Monthly Tools: Supplemental Reading Lists n2y Library Standards Connection **News2you** Sudoku Activities: Vertical Addition Activities: Vertical Subtraction Activities: Writing Addition Problems Activities: Patchwork Addition Activities: Patchwork Subtraction Activities: What Comes Next? Activities: Word Problems Activities: Multiplication Joey's Locker: Tac-Tac-Toe Joey's Locker: Order Joey's Locker: Bouncing Pattern Game

n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● Students will model multiplication and division with objects and numbers, showing equal groups in the context of a real-world scenario. ● Students will independently use commutative and associative properties as strategies to solve multiplication and division problems. ● Students will model and solve multiplication and division problems to 100. ● Students will identify and explain a number pattern in charts and tables. ● Students will independently identify the unknown number represented by a symbol in a math sentence. ● Students will solve multi-step problems, using a combination of operations in the context of a real-world scenario. ● Students will read, write and solve a math sentence. ● Students will identify which operation should be done first in a problem. ● Students will extend a sequence of objects to show a pattern. ● Students will extend a sequence of numbers to show a pattern (2s, 5s, 10s, etc.).	● Students will count equal numbers of objects in selected groups or an array. ● Students will model the use of commutative or associative properties as strategies to solve multiplication and division problems with support. ● Students will count equal numbers of objects in selected groups or an array to 100. ● Students will identify a pattern in a chart or table with support. ● Students will make a model of a math sentence to find the unknown number with support. ● Students will solve a two-step problem, using operations and models in the context of a real-world scenario. ● Students will use pictures and numbers to model a math sentence with support. ● Students will use a model to select which operation should be done first in a problem with support. ● Students will extend a sequence of objects to show a pattern with support. ● Students will extend a sequence of numbers to show a pattern (2s, 5s, 10s, etc.) with support.	● Students will count a set of objects in a group through an active participation response (e.g., voice output device, eye gaze choice board). ● Students will group objects into equal groups through an active participation response (e.g., voice output device, eye gaze choice board). ● Students will count a set of objects in a group through an active participation response (e.g., voice output device, eye gaze. choice board). ● Students will make a pattern through an active participation response (e.g., voice output device, eye gaze, choice board). ● Students will identify the unknown number in a math sentence from a narrowed field or errorless choice(s). ● Students will select numbers and count within a two-step problem in the context of a real-world scenario. ● Students will select a picture or a number from a narrowed field or errorless choice(s) to model a math sentence. ● Students will select an operation from a narrowed field or errorless choice(s) to indicate which operation should be done first in a problem. ● Students will select an object to show what appears next in a pattern from a narrowed field or errorless choice(s). ● Students will select a number from a narrowed field or errorless choice(s) to show what appears next in a pattern.

Standards for Numbers and Operations in Base Ten	Grades 3–5
Texas Essential Knowledge and Skills for Mathematics	**STAAR Alternate 2 Essence Statements**
3rd Grade	***3rd Grade***
(2) Number and operations. The student applies mathematical process standards to represent and compare whole numbers and understand relationships related to place value. The student is expected to: 3.2.A Compose and decompose numbers up to 100,000 as a sum of so many ten thousands, so many thousands, so many hundreds, so many tens, and so many ones using objects, pictorial models, and numbers, including expanded notation as appropriate.	**Knowledge and Skills Statement (3.2) Number and operations.** The student applies mathematical process standards to represent and compare whole numbers and understand relationships related to place value. (Readiness and Supporting Standard) Essence Statement Uses whole number relationships to demonstrate an understanding of place value.
3.2.B Describe the mathematical relationships found in the base-10 place value system through the hundred thousands place.	
3.2.C Represent a number on a number line as being between two consecutive multiples of 10; 100; 1,000; or 10,000 and use words to describe relative size of numbers in order to round whole numbers.	
3.2.D Compare and order whole numbers up to 100,000 and represent comparisons using the symbols >, <, or =.	
4) Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve problems with efficiency and accuracy. The student is expected to: 3.4.A Solve with fluency one-step and two-step problems involving addition and subtraction within 1,000 using strategies based on place value, properties of operations, and the relationship between addition and subtraction.	**Knowledge and Skills Statement (3.4) Number and operations.** The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve problems with efficiency and accuracy. (Supporting Standard) Essence Statement Identifies even or odd numbers.
3.4.B Round to the nearest 10 or 100 or use compatible numbers to estimate solutions to addition and subtraction problems.	**Knowledge and Skills Statement (3.4) Number and operations.** The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve problems with efficiency and accuracy. (Readiness and Supporting Standard) Essence Statement Solves problems using operations involving whole numbers.
4th Grade	***4th Grade***
(2) Number and operations. The student applies mathematical process standards to represent, compare, and order whole numbers and decimals and understand relationships related to place value. The student is expected to: 4.2.A Interpret the value of each place-value position as 10 times the position to the right and as one-tenth of the value of the place to its left.	**Knowledge and Skills Statement (4.2) Number and operations.** The student applies mathematical process standards to represent, compare, and order whole numbers and decimals and understand relationships related to place value. (Readiness and Supporting Standard) Essence Statement Uses number relationships to demonstrate an understanding of place value.
4.2.B Represent the value of the digit in whole numbers through 1,000,000,000 and decimals to the hundredths using expanded notation and numerals.	
4.2.C Compare and order whole numbers to 1,000,000,000 and represent comparisons using the symbols >, <, or =.	
4.2.D Round whole numbers to a given place value through the hundred thousands place.	
4.2.E Represent decimals, including tenths and hundredths, using concrete and visual models and money.	
4.2.F Compare and order decimals using concrete and visual models to the hundredths.	
4.2.G Relate decimals to fractions that name tenths and hundredths.	

4.2.H Determine the corresponding decimal to the tenths or hundredths place of a specified point on a number line.	
(4) Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations and decimal sums and differences in order to solve problems with efficiency and accuracy. The student is expected to: 4.4.A Add and subtract whole numbers and decimals to the hundredths place using the standard algorithm.	**Knowledge and Skills Statement (4.4) Number and operations.** The student applies mathematical process standards to develop and use strategies and methods for whole number computations and decimal sums and differences in order to solve problems with efficiency and accuracy. (Readiness and Supporting Standard) Essence Statement Solves problems using operations involving whole numbers or decimals.
4.4.B Determine products of a number and 10 or 100 using properties of operations and place value understandings.	
4.4.C Represent the product of 2 two-digit numbers using arrays, area models, or equations, including perfect squares through 15 by 15.	
4.4.D Use strategies and algorithms, including the standard algorithm, to multiply up to a four-digit number by a one-digit number and to multiply a two-digit number by a two-digit number. Strategies may include mental math, partial products, and the commutative, associative, and distributive properties.	
4.4.E Represent the quotient of up to a four-digit whole number divided by a one-digit whole number using arrays, area models, or equations.	
4.4.F Use strategies and algorithms, including the standard algorithm, to divide up to a four-digit dividend by a one-digit divisor.	
4.4.G Round to the nearest 10, 100, or 1,000 or use compatible numbers to estimate solutions involving whole numbers.	
4.4.H Solve with fluency one- and two-step problems involving multiplication and division, including interpreting remainders.	
5th Grade	***5th Grade***
(2) 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. The student is expected to: 5.2.A Represent the value of the digit in decimals through the thousandths using expanded notation and numerals.	**Knowledge and Skills Statement (5.2) 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. (Readiness and Supporting Standard) Essence Statement Uses numbers to demonstrate an understanding of place value.
5.2.B Compare and order two decimals to thousandths and represent comparisons using the symbols >, <, or =.	
5.2.C Round decimals to tenths or hundredths.	

n2y Instructional Targets	n2y Intermediate Grade Band Lessons and Activities	n2y Supporting Activities
Building Blocks to Operations ● Read and write numerals. ● Count a number of objects. ***Generalize place value understanding for multi-digit whole numbers.*** ● Use number lines or visual representations to illustrate whole numbers, including ones, tens and hundreds. ● Use place value understanding to round whole numbers to the nearest 10 or 100. ***Use place value understanding and properties of operations to perform multi-digit arithmetic.*** ● Solve addition and subtraction problems up to 30, 50 and 100. ● Illustrate concepts of multiplication (equal shares) and division (equal groups) with multi-digit numbers. ● Solve single-digit and multi-digit multiplication and division problems. ***Understand the place value system.*** ● Use visual representations to illustrate or compare decimals to the tenths or hundredths place. ● Compare multi-digit numbers by use of symbols: >, < or =.	**Unique** Number Sense (Lesson 16) Money (Lesson 18) Algebra/Patterns (Lesson 24)	**Unique** ULS Instructional Guides: Mathematics ULS Instructional Tools: Math Pack/Numbers ULS Instructional Tools: Math Pack/Arrays Manipulative Pictures Standards Connection **News2you** Sudoku Activities: Dot-to-Do Activities: Math Sets Activities: Which is Greater Activities: What Comes Next? Activities: Higher Addition Activities: Higher Subtraction Joey's Locker: Connect the Dots

n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● Students will count and read numbers to 100. ● Students will model and identify the number of 100s, 10s and 1s in a two-digit number. ● Students will independently round to the nearest 10 or 100. ● Students will solve addition and subtraction problems to 50 and 100. ● Students will model and solve simple multiplication and division problems in the context of a real-world scenario. ● Students will read money numbers containing a decimal to indicate dollars and cents. ● Students will compare numbers to 100 to determine more, less or equal.	● Students will count and read one-digit and two-digit numbers. ● Students will model and identify the 10s and 1s in a whole number with support. ● Students will use visuals and other supports to round numbers. ● Students will solve addition and subtraction problems to 20. ● Students will model groups to multiply or divide. ● Students will match a decimal money amount to the same figure in cents. ● Students will compare numbers to 20 with a model to determine more, less or equal.	● Students will count to a given number through an active participation response (e.g., voice output device, eye gaze choice board). ● Students will sort 10s and 1s to make an expanded form of a number through an active participation response. ● Students will select a number through an active participation response and, with support, choose if it is closer to 0 or 10. ● Students will count sets of objects within addition or subtraction problems using an active participation response (e.g., voice output device, eye gaze choice board). ● Students will count a set of objects in a group using an active participation response (e.g., voice output device, eye gaze choice board). ● Students will select a money amount containing a decimal to demonstrate making a purchase. ● Students will compare two sets of objects to determine more, less or equal.

Standards for Numbers and Operations with Fractions	Grades 3–5
Texas Essential Knowledge and Skills for Mathematics	**STAAR Alternate 2 Essence Statements**
3rd Grade	***3rd Grade***
(3) Number and operations. The student applies mathematical process standards to represent and explain fractional units. The student is expected to: 3.3.A Represent fractions greater than zero and less than or equal to one with denominators of 2, 3, 4, 6, and 8 using concrete objects and pictorial models, including strip diagrams and number lines.	**Knowledge and Skills Statement (3.3) Number and operations.** The student applies mathematical process standards to represent and explain fractional units. (Readiness and Supporting Standard) Essence Statement Models and finds relationships among fractional units.
3.3.B Determine the corresponding fraction greater than zero and less than or equal to one with denominators of 2, 3, 4, 6, and 8 given a specified point on a number line.	
3.3.C Explain that the unit fraction 1/b represents the quantity formed by one part of a whole that has been partitioned into b equal parts where b is a non-zero whole number.	
3.3.D Compose and decompose a fraction a/b with a numerator greater than zero and less than or equal to b as a sum of parts 1/b.	
3.3.E Solve problems involving partitioning an object or a set of objects among two or more recipients using pictorial representations of fractions with denominators of 2, 3, 4, 6, and 8.	
3.3.F Represent equivalent fractions with denominators of 2, 3, 4, 6, and 8 using a variety of objects and pictorial models, including number lines.	
3.3.G Explain that two fractions are equivalent if and only if they are both represented by the same point on the number line or represent the same portion of a same size whole for an area model.	
3.3.H Compare two fractions having the same numerator or denominator in problems by reasoning about their sizes and justifying the conclusion using symbols, words, objects, and pictorial models.	
(7) Geometry and measurement. The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement. The student is expected to: 3.7.A Represent fractions of halves, fourths, and eighths as distances from zero on a number line.	**Knowledge and Skills Statement (3.7) Geometry and measurement.** The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement. (Readiness and Supporting Standard) Essence Statement Uses number lines to show fractions as distances from zero.

4th Grade	*4th Grade*
(3) Number and operations. The student applies mathematical process standards to represent and generate fractions to solve problems. The student is expected to: 4.3.A Represent a fraction a/b as a sum of fractions 1/b, where a and b are whole numbers and b > 0, including when a > b.	**Knowledge and Skills Statement (4.3) Number and operations.** The student applies mathematical process standards to represent and generate fractions to solve problems. (Readiness and Supporting Standard) Essence Statement Models and finds relationships among fractional units. **Knowledge and Skills Statement (4.3) Number and operations.** The student applies mathematical process standards to represent and generate fractions to solve problems. (Readiness and Supporting Standard) Essence Statement Solves addition or subtraction problems involving fractions.
4.3.B Decompose a fraction in more than one way into a sum of fractions with the same denominator using concrete and pictorial models and recording results with symbolic representations.	
4.3.C Determine if two given fractions are equivalent using a variety of methods.	
4.3.D Compare two fractions with different numerators and different denominators and represent the comparison using the symbols >, =, or <.	
4.3.E Represent and solve addition and subtraction of fractions with equal denominators using objects and pictorial models that build to the number line and properties of operations.	
4.3.F Evaluate the reasonableness of sums and differences of fractions using benchmark fractions 0, 1/4, 1/2, 3/4, and 1, referring to the same whole.	
4.3.G Represent fractions and decimals to the tenths or hundredths as distances from zero on a number line.	

n2y Instructional Targets	**n2y Intermediate Grade Band Lessons and Activities**	**n2y Supporting Activities**
Develop understanding of fractions as numbers. ● Use concrete models to illustrate fractional parts (equal parts showing a whole and one half, one third and one fourth of a whole). ● Match symbolic representations (1/2, 1/3, 1/4, etc.) to fractional parts. ***Use equivalent fractions as a strategy to add and subtract fractions.*** ● Add or subtract fractions with like denominators to solve real-world problems, using a visual or an object model.	**Unique** It's a Fraction (Lesson 20)	**Unique** ULS Instructional Guides: Mathematics ULS Instructional Tools: Math Pack/Numbers (fractions) Standards Connection

n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● Students will identify fractional representations with a fractional model. ● Students will apply use of fractional representation of ¼, ½ and ⅓ in the context of real-word problems and scenarios. ● Students will use fractional representations to add or subtract two fractions in the context of real-world scenarios (e.g., ¼ cup + ¼ cup is the same as ½ cup).	● Students will model a whole that is divided into two, three or four equal parts. ● Students will recognize appropriate use of ½ and ¼ in the context of real-world problems and scenarios. ● Students will model addition or subtraction of two fractions in the context of real-world scenarios with support.	● Students will select matching parts that fit together to make a whole. ● Students will select fractional units as part of a real-world problem or scenario. ● Students will match fractional parts of an object to model the solution to an addition or subtraction problem through an active participation response.

Standards for Measurement and Data	Grades 3–5
Texas Essential Knowledge and Skills for Mathematics	**STAAR Alternate 2 Essence Statements**
3rd Grade	***3rd Grade***
(4) Number and operations. The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve problems with efficiency and accuracy. The student is expected to: 3.4.C Determine the value of a collection of coins and bills.	**Knowledge and Skills Statement (3.4) Number and operations.** The student applies mathematical process standards to develop and use strategies and methods for whole number computations in order to solve problems with efficiency and accuracy. (Supporting Standard) Essence Statement Solves problems involving collections of coins and bills.
(7) Geometry and measurement. The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement. The student is expected to: 3.7.B Determine the perimeter of a polygon or a missing length when given perimeter and remaining side lengths in problems.	**Knowledge and Skills Statement (3.7) Geometry and measurement.** The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving customary and metric measurement. (Readiness and Supporting Standard) Essence Statement Uses number lines to show fractions as distances from zero.
3.7.C Determine the solutions to problems involving addition and subtraction of time intervals in minutes using pictorial models or tools such as a 15-minute event plus a 30-minute event equals 45 minutes.	
3.7.D Determine when it is appropriate to use measurements of liquid volume (capacity) or weight.	
3.7.E Determine liquid volume (capacity) or weight using appropriate units and tools.	
(8) Data analysis. The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data. The student is expected to: 3.8.A Summarize a data set with multiple categories using a frequency table, dot plot, pictograph, or bar graph with scaled intervals.	**Knowledge and Skills Statement (3.8) Data analysis.** The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data. (Readiness and Supporting Standard) Essence Statement Uses graphs to organize and interpret data.
3.8.B Solve one- and two-step problems using categorical data represented with a frequency table, dot plot, pictograph, or bar graph with scaled intervals.	
(9) Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to: 3.9.A Explain the connection between human capital/labor and income.	**Knowledge and Skills Statement (3.9) Personal financial literacy.** The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. (Supporting Standard) Essence Statement Recognizes how money can be earned, spent, and saved.
3.9.B Describe the relationship between the availability or scarcity of resources and how that impacts cost.	
3.9.C Identify the costs and benefits of planned and unplanned spending decisions.	
3.9.D Explain that credit is used when wants or needs exceed the ability to pay and that it is the borrower's responsibility to pay it back to the lender, usually with interest.	
3.9.E List reasons to save and explain the benefit of a savings plan, including for college.	
3.9.F Identify decisions involving income, spending, saving, credit, and charitable giving.	
4th Grade	***4th Grade***
(5) Algebraic reasoning. The student applies mathematical process standards to develop concepts of expressions and equations. The student is expected to: 4.5.C Use models to determine the formulas for the perimeter of a rectangle (l + w + l + w or 2l + 2w), including the special form for perimeter of a square (4s) and the area of a rectangle (l x w).	**Knowledge and Skills Statement (4.5) Algebraic reasoning.** The student applies mathematical process standards to develop concepts of expressions and equations. (Readiness Standard) Essence Statement Models or solves problems involving whole number relationships.
4.5.D Solve problems related to perimeter and area of rectangles where dimensions are whole numbers.	

(8) Geometry and measurement. The student applies mathematical process standards to select appropriate customary and metric units, strategies, and tools to solve problems involving measurement. The student is expected to: 4.8.A Identify relative sizes of measurement units within the customary and metric systems.	**Knowledge and Skills Statement (4.8) Geometry and measurement.** The student applies mathematical process standards to select appropriate customary and metric units, strategies, and tools to solve problems involving measurement. (Readiness and Supporting Standard) Essence Statement Solves problems involving length, time, liquid volume, mass/weight, or money.
4.8.B Convert measurements within the same measurement system, customary or metric, from a smaller unit into a larger unit or a larger unit into a smaller unit when given other equivalent measures represented in a table.	
4.8.C Solve problems that deal with measurements of length, intervals of time, liquid volumes, mass, and money using addition, subtraction, multiplication, or division as appropriate.	
(9) Data analysis. The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data. The student is expected to: 4.9.A Represent data on a frequency table, dot plot, or stem-and-leaf plot marked with whole numbers and fractions.	**Knowledge and Skills Statement (4.9) Data analysis.** The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data. (Readiness and Supporting Standard) Essence Statement Uses graphs to organize and interpret data.
4.9.B Solve one- and two-step problems using data in whole number, decimal, and fraction form in a frequency table, dot plot, or stem-and-leaf plot.	
(10) Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to: 4.10.A Distinguish between fixed and variable expenses.	**Knowledge and Skills Statement (4.10) Personal financial literacy.** The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. (Supporting Standard) Essence Statement Recognizes how money can be obtained, spent, and used to make a profit.
4.10.B Calculate profit in a given situation.	
4.10.C Compare the advantages and disadvantages of various savings options.	
4.10.D Describe how to allocate a weekly allowance among spending; saving, including for college; and sharing.	
4.10.E Describe the basic purpose of financial institutions, including keeping money safe, borrowing money, and lending.	
5th Grade	***5th Grade***
(4) Algebraic reasoning. The student applies mathematical process standards to develop concepts of expressions and equations. The student is expected to: 5.4.G 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 = l x w x h, V = s x s x s, and V = Bh).	**Knowledge and Skills Statement (5.4) Algebraic reasoning.** The student applies mathematical process standards to develop concepts of expressions and equations. (Readiness and Supporting Standard) Essence Statement Models or solves problems involving whole number relationships or patterns.
5.4.H Represent and solve problems related to perimeter and/or area and related to volume.	**Knowledge and Skills Statement (5.4) Algebraic reasoning.** The student applies mathematical process standards to develop concepts of expressions and equations. (Readiness Standard) Essence Statement Solves problems involving perimeter, area, or volume.
(6) Geometry and measurement. The student applies mathematical process standards to understand, recognize, and quantify volume. The student is expected to: 5.6.A 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.	**Knowledge and Skills Statement (5.6) Geometry and measurement.** The student applies mathematical process standards to understand, recognize, and quantify volume. (Supporting Standard) Essence Statement Determines volume of rectangular prisms.
5.6.B 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.	
(7) Geometry and measurement. The student applies mathematical process standards to select appropriate units, strategies, and tools to solve problems involving measurement.	*This standard is not addressed in the STAAR Alternate 2 Essence Statements.*

5.7 The student is expected to solve problems by calculating conversions within a measurement system, customary or metric.	
(9) Data analysis. The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data. The student is expected to: 5.9.A 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.	**Knowledge and Skills Statement (5.9) Data Analysis.** The student applies mathematical process standards to solve problems by collecting, organizing, displaying, and interpreting data. (Readiness and Supporting Standard) Essence Statement Uses graphs to organize and interpret data.
5.9.B Represent discrete paired data on a scatterplot.	
5.9.C Solve one- and two-step problems using data from a frequency table, dot plot, bar graph, stem-and-leaf plot, or scatterplot.	
(10) Personal financial literacy. The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. The student is expected to: 5.10.A Define income tax, payroll tax, sales tax, and property tax.	
5.10.B Explain the difference between gross income and net income.	
5.10.C Identify the advantages and disadvantages of different methods of payment, including check, credit card, debit card, and electronic payments.	
5.10.D Develop a system for keeping and using financial records.	
5.10.E Describe actions that might be taken to balance a budget when expenses exceed income.	
5.10.F Balance a simple budget.	**Knowledge and Skills Statement (5.10) Personal financial literacy.** The student applies mathematical process standards to manage one's financial resources effectively for lifetime financial security. (Supporting Standard) Essence Statement Determines how to balance a simple budget.

n2y Instructional Targets	n2y Intermediate Grade Band Lessons and Activities	n2y Supporting Activities
Solve problems involving measurement and estimation of intervals of time, liquid volumes and masses of objects. ● Use time concepts to describe personal activities and schedules (e.g., calendar dates and days). ● Tell time to hour, half-hour, quarter-hour and five-minute intervals. ● Use standard units to measure length (inches, feet) or weight (pounds, ounces). ● Solve problems and describe differences in length or weight (more, less or same; >, < or =, etc.). ***Solve problems involving measurement and conversion of measurements from a larger unit to a smaller unit.*** ● Determine elapsed time within real-world scenarios (hour, half-hour and quarter-hour intervals). ● Solve real-world problems, including use of operations that involve liquid volumes and masses of objects. ● Solve real-world problems, including use of operations that involve money. ***Represent and interpret data.*** ● Collect, organize and display data on a picture, line plot or bar graph. ● Answer questions to interpret data on graphs. ***Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures; understand concepts of volume and relate volume to multiplication and to addition.*** ● Solve problems involving perimeter of shapes within the context of a real-world scenario. ● Solve problems involving area of rectangles within the context of a real-world scenario. ● Solve problems involving volume of rectangular prisms within the context of a real-world scenario.	**Unique** Survey and Chart (Lesson 17) Money (Lesson 18) Telling Time (Lesson 19) Measure It! (Lesson 21) Crafty Kid (Lesson 22) Core Task 1.1: Daily Schedules Core Task 1.2: Monthly Calendars Core Task 4.1: Calendar Report (Circle Time)	**Unique** ULS Instructional Guides: Mathematics ULS Instructional Tools: Math Pack/Time ULS Instructional Tools: Math Pack/Money Standards Connection **News2you** Recipe Page Standards Connection Activities: What is the Time? A, B and C Activities: Counting Money Activities: Dollars & Cents Activities: Making Change Activities: Graphing A & B Activities: Food Graph

n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
• Students will identify dates, including days, months and years, on a calendar. • Students will identify time and solve simple real-world problems involving intervals of time. • Students will use inches and feet to measure and compare length in the context of a real-world activity. • Students will select and use appropriate measurement tools for measurement of liquid mass and weight in the context of a real-world activity or scenario. • Students will solve word problems involving elapsed time with intervals of one hour, a half-hour and quarter-hours. • Students will calculate an amount of coins and bills to solve a problem within a real-world scenario. • Students will collect, organize and report data that is presented on a graph. • Students will independently add side lengths to determine the perimeter of a shape. • Students will independently determine area of a rectangle by counting units of measure (units squared). • Students will independently identify the total number of unit cubes used to measure the volume of an object.	• Students will identify the days and months on a calendar. • Students will identify time to the hour and half hour as it applies to a real-world scenario or schedule. • Students will identify the number of inches or feet in a supported measurement of length. • With support, students will use appropriate measurement tools in a supported measurement of liquid mass and weight within a real-world task. • Students will identify a time to solve simple word problems involving elapsed time with support. • Students will select coins or bills to match a price within a real-world scenario. • Students will ask questions to gather data and display it on a graph. • Students will add side lengths to determine the perimeter of a shape, with support. • Students will determine area of a rectangle by counting units of measure, with support. • Students will identify the total number of unit cubes used to measure the volume of an object, with support.	• Students will select the day of the week and month of the year as part of a daily schedule. • Students will select a time as part of a sequence of activities or a schedule. • Students will identify the number of inches in a supported measurement of length. • Students will select a measurement tool within the context of an activity. • Given a narrowed field or errorless choice(s), students will identify a time related to a real-world situation or scenario involving elapsed time. • Students will use money to make a purchase. • Students will ask a question and select pictures as part of a data-gathering process. • Students will add side lengths to determine the perimeter of a shape, with support. • Students will determine area of a rectangle by counting units of measure, with support. • Students will identify the total number of unit cubes used to measure the volume of an object, with support.

Standards for Geometry	Grades 3–5
Texas Essential Knowledge and Skills for Mathematics	**STAAR Alternate 2 Essence Statements**
3rd Grade	***3rd Grade***
(6) Geometry and measurement. The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. The student is expected to: 3.6.A Classify and sort two- and three-dimensional figures, including cones, cylinders, spheres, triangular and rectangular prisms, and cubes, based on attributes using formal geometric language.	**Knowledge and Skills Statement (3.6) Geometry and measurement.** The student applies mathematical process standards to analyze attributes of two-dimensional geometric figures to develop generalizations about their properties. (Readiness and Supporting Standard) Essence Statement Identifies geometric figures using attributes.
3.6.B Use attributes to recognize rhombuses, parallelograms, trapezoids, rectangles, and squares as examples of quadrilaterals and draw examples of quadrilaterals that do not belong to any of these subcategories.	
3.6.C Determine the area of rectangles with whole number side lengths in problems using multiplication related to the number of rows times the number of unit squares in each row.	
3.6.D Decompose composite figures formed by rectangles into non-overlapping rectangles to determine the area of the original figure using the additive property of area.	
3.6.E Decompose two congruent two-dimensional figures into parts with equal areas and express the area of each part as a unit fraction of the whole and recognize that equal shares of identical wholes need not have the same shape.	
4th Grade	***4th Grade***
(6) Geometry and measurement. The student applies mathematical process standards to analyze geometric attributes in order to develop generalizations about their properties. The student is expected to: 4.6.A Identify points, lines, line segments, rays, angles, and perpendicular and parallel lines.	**Knowledge and Skills Statement (4.6) Geometry and measurement.** The student applies mathematical process standards to analyze geometric attributes in order to develop generalizations about their properties. (Readiness and Supporting Standard) Essence Statement Identifies one- and two-dimensional geometric figures using attributes.
4.6.B Identify and draw one or more lines of symmetry, if they exist, for a two-dimensional figure.	
4.6.C Apply knowledge of right angles to identify acute, right, and obtuse triangles.	
4.6.D Classify two-dimensional figures based on the presence or absence of parallel or perpendicular lines or the presence or absence of angles of a specified size.	
(7) Geometry and measurement. The student applies mathematical process standards to solve problems involving angles less than or equal to 180 degrees. The student is expected to: 4.7.A Illustrate the measure of an angle as the part of a circle whose center is at the vertex of the angle that is "cut out" by the rays of the angle. Angle measures are limited to whole numbers.	**Knowledge and Skills Statement (4.7) Geometry and measurement.** The student applies mathematical process standards to solve problems involving angles less than or equal to 180 degrees. (Readiness and Supporting Standard) Essence Statement Finds the measures of angles.
4.7.B Illustrate degrees as the units used to measure an angle, where 1/360 of any circle is one degree and an angle that "cuts" n /360 out of any circle whose center is at the angle's vertex has a measure of n degrees. Angle measures are limited to whole numbers.	
4.7.C Determine the approximate measures of angles in degrees to the nearest whole number using a protractor.	
4.7.D Draw an angle with a given measure.	
4.7.E Determine the measure of an unknown angle formed by two non-overlapping adjacent angles given one or both angle measures.	

5th Grade		*5th Grade*
(5) Geometry and measurement. The student applies mathematical process standards to classify two-dimensional figures by attributes and properties. 5.5 The student is expected to classify two-dimensional figures in a hierarchy of sets and subsets using graphic organizers based on their attributes and properties.		*This standard is not addressed in the STAAR Alternate 2 Essence Statements.*
(8) Geometry and measurement. The student applies mathematical process standards to identify locations on a coordinate plane. The student is expected to: 5.8.A 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.		**Knowledge and Skills Statement (5.8) Geometry and measurement.** The student applies mathematical process standards to identify locations on a coordinate plane. (Readiness and Supporting Standard) Essence Statement Locates points on a coordinate plane.
5.8.B Describe the process for graphing ordered pairs of numbers in the first quadrant of the coordinate plane.		
5.8.C 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.		
n2y Instructional Targets	**n2y Intermediate Grade Band Lessons and Activities**	**n2y Supporting Activities**
Reason with shapes and their attributes. ● Recognize and describe attributes (number of sides, angles, parallel sides, etc.) of two-dimensional shapes (square, circle, triangle, rectangle, etc.). ● Recognize and describe attributes (number of edges, faces, and vertices) of three-dimensional shapes (cubes, rectangular prisms, cones, cylinders and spheres). ● Partition shapes into equal parts. ***Draw and identify lines and angles, and classify shapes by properties of their lines and angles.*** ● Recognize, describe and construct points, rays, segments and lines (perpendicular and parallel). ● Recognize, describe and construct angles (right, obtuse and acute). ● Recognize a line of symmetry that separates a line-symmetric shape into equal halves. ***Graph points on the coordinate plane to solve real-world and mathematical problems.*** ● Identify and plot points on a coordinate plane. ***Classify two-dimensional figures into categories based on their properties.*** ● Classify two-dimensional shapes by their attributes.	**Unique** It's a Fraction (Lesson 20) Geometry/Spatial Sense (Lesson 23)	**Unique** ULS Instructional Guides: Mathematics ULS Instructional Tools: Math Pack/Shapes Standards Connection

n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● Students will independently identify two-dimensional shapes and describe the attributes. ● Students will independently identify three-dimensional shapes and describe the attributes. ● Students will independently divide a shape into equal parts. ● Students will independently identify, describe and make points, rays, segments, lines and perpendicular and parallel lines. ● Students will independently identify, describe and make right, obtuse and acute angles. ● Students will independently draw and identify a line of symmetry on a line-symmetric object. ● Students will independently identify x and y coordinates and plot points on a coordinate plane. ● Students will independently sort shapes by multiple attributes.	● Students will identify and describe two-dimensional shapes, with support. ● Students will identify and describe three-dimensional shapes, with support. ● Students will divide a shape into equal parts, with support. ● Students will identify, describe and/or make points, rays, segments and lines, with support. ● Students will identify, describe and/or make right, obtuse and acute angles, with support. ● Students will draw and identify a line of symmetry on a line-symmetric object, with support. ● Students will locate and plot points on a coordinate plane, with support. ● Students will sort shapes on the basis of multiple attributes, with support.	● Students will select a named two-dimensional shape or its attributes from a narrowed field or errorless choice(s). ● Students will select a named three-dimensional shape or its attributes from a narrowed field or errorless choice(s). ● Students will count the equal parts of a whole shape. ● Students will select points, rays, segments and lines from a narrowed field or errorless choice(s). ● Students will select right, obtuse and acute angles or angle parts to make angles from a narrowed field or errorless choice(s). ● Students will select a line of symmetry from a narrowed field or errorless choice(s). ● Students will select a point on a graph through an active participation response. ● Students will select a named shape to sort by its attributes from a narrowed field or errorless choice(s).

Standards for Ratios and Proportional Relationships	Grades 6–8
Texas Essential Knowledge and Skills for Mathematics	**STAAR Alternate 2 Essence Statements**
6th Grade	***6th Grade***
(4) Proportionality. The student applies mathematical process standards to develop an understanding of proportional relationships in problem situations. The student is expected to: 6.4.A Compare two rules verbally, numerically, graphically, and symbolically in the form of y = ax or y = x + a in order to differentiate between additive and multiplicative relationships.	**Knowledge and Skills Statement (6.4) Proportionality.** The student applies mathematical process standards to develop an understanding of proportional relationships in problem situations. (Readiness Standard) Essence Statement Uses conversions within a measurement system to solve problems.
6.4.B Apply qualitative and quantitative reasoning to solve prediction and comparison of real-world problems involving ratios and rates.	
6.4.C Give examples of ratios as multiplicative comparisons of two quantities describing the same attribute.	
6.4.D Give examples of rates as the comparison by division of two quantities having different attributes, including rates as quotients.	
6.4.E Represent ratios and percents with concrete models, fractions, and decimals.	
6.4.F Represent benchmark fractions and percents such as 1%, 10%, 25%, 33 1/3%, and multiples of these values using 10 by 10 grids, strip diagrams, number lines, and numbers.	
6.4.G Generate equivalent forms of fractions, decimals, and percents using real-world problems, including problems that involve money.	
(5) Proportionality. The student applies mathematical process standards to solve problems involving proportional relationships. The student is expected to: 6.5.A Represent mathematical and real-world problems involving ratios and rates using scale factors, tables, graphs, and proportions.	**Knowledge and Skills Statement (6.5) Proportionality.** The student applies mathematical process standards to solve problems involving proportional relationships. (Supporting Standard) Essence Statement Recognizes equal parts of a whole using equivalent fractions.
6.5.B Solve real-world problems to find the whole given a part and the percent, to find the part given the whole and the percent, and to find the percent given the part and the whole, including the use of concrete and pictorial models.	
6.5.C Use equivalent fractions, decimals, and percents to show equal parts of the same whole.	
7th Grade	***7th Grade***
(4) Proportionality. The student applies mathematical process standards to represent and solve problems involving proportional relationships. The student is expected to: 7.4.A Represent constant rates of change in mathematical and real-world problems given pictorial, tabular, verbal, numeric, graphical, and algebraic representations, including $d = rt$.	**Knowledge and Skills Statement (7.4) Proportionality.** The student applies mathematical process standards to represent and solve problems involving proportional relationships. (Readiness and Supporting Standard) Essence Statement Solves problems involving ratios, rates, or percents.
7.4.B Calculate unit rates from rates in mathematical and real-world problems.	
7.4.C Determine the constant of proportionality (k = y/x) within mathematical and real-world problems.	
7.4.D Solve problems involving ratios, rates, and percents, including multi-step problems involving percent increase and percent decrease, and financial literacy problems.	
8th Grade	***8th Grade***
(5) 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: 8.5.H Identify examples of proportional and non-proportional functions that arise from mathematical and real-world problems.	**Knowledge and Skills Statement (8.5) Proportionality.** The student applies mathematical process standards to use proportional and nonproportional relationships to develop foundational concepts of functions. (Readiness and Supporting Standard) Essence Statement Models or solves problems involving proportional or non-proportional relationships.

n2y Instructional Targets	n2y Middle School Grade Band Lessons and Activities	n2y Supporting Activities
Understand ratio concepts and use ratio reasoning to solve problems. ● Identify and write a ratio to compare part-to-part and part-to-whole relationships (e.g., If for every lollipop in the bag, there are two candy bars, a 1:2 ratio exists). ***Analyze proportional relationships and use them to solve real-world and mathematical problems.*** ● Solve real-world problems involving unit rate (e.g., If it takes one hour to make one pillow, how long will it take to make four pillows?). ● Apply understanding of percentages in real-world scenarios (10% tip, 30% sale, etc.).	**Unique** Money (Lesson 22) Algebra (Lesson 25b)	**Unique** ULS Instructional Guides: Mathematics ULS Instructional Tools: Math Pack/Time ULS Instructional Tools: Math Pack/Money Standards Connection

n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● Students will identify and write a ratio to describe part-to-part and part-to-whole relationships in the context of a real-world scenario. ● Students will solve whole number, time and money problems involving unit rate. ● Students will calculate percentages in real-world scenarios.	● Students will model part-to-part and part-to-whole relationships in the context of a real-world scenario. ● Students will identify whole number, time or money amounts in the context of a unit rate scenario. ● Students will locate a percentage amount from a chart.	● Students will match objects represented in part-to-part and part-to-whole relationships in the context of a real-world scenario. ● Students will select a whole number, time or money amount in the context of a unit rate scenario. ● Students will identify a number that represents a percentage.

Standards for the Number System	Grades 6–8
Texas Essential Knowledge and Skills for Mathematics	**STAAR Alternate 2 Essence Statements**
6th Grade	***6th Grade***
(2) 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: 6.2.A Classify whole numbers, integers, and rational numbers using a visual representation such as a Venn diagram to describe relationships between sets of numbers.	**Knowledge and Skills Statement (6.2) Number and operations.** The student applies mathematical process standards to represent and use rational numbers in a variety of forms. (Readiness and Supporting Standard) Essence Statement Recognizes relationships in and between sets of numbers.
6.2.B Identify a number, its opposite, and its absolute value.	
6.2.C Locate, compare, and order integers and rational numbers using a number line.	
6.2.D Order a set of rational numbers arising from mathematical and real-world contexts.	
6.2.E Extend representations for division to include fraction notation such as a/b represents the same number as a ÷ b where b ≠ 0.	
(3) Number and operations. The student applies mathematical process standards to represent addition, subtraction, multiplication, and division while solving problems and justifying solutions. The student is expected to: 6.3.A Recognize that dividing by a rational number and multiplying by its reciprocal result in equivalent values.	*These standards are not addressed in the STAAR Alternate 2 Essence Statements.*
6.3.B Determine, with and without computation, whether a quantity is increased or decreased when multiplied by a fraction, including values greater than or less than one.	
6.3.C Represent integer operations with concrete models and connect the actions with the models to standardized algorithms.	
6.3.D Add, subtract, multiply, and divide integers fluently.	
6.3.E Multiply and divide positive rational numbers fluently.	
7th Grade	***7th Grade***
(2) 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 extend previous knowledge of sets and subsets using a visual representation to describe relationships between sets of rational numbers.	**Knowledge and Skills Statement (7.2) Number and operations.** The student applies mathematical process standards to represent and use rational numbers in a variety of forms. (Supporting Standard) Essence Statement Models relationships between sets of numbers.
(3) 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: 7.3.A Add, subtract, multiply, and divide rational numbers fluently.	*These standards are not addressed in the STAAR Alternate 2 Essence Statements.*
7.3.B Apply and extend previous understandings of operations to solve problems using addition, subtraction, multiplication, and division of rational numbers.	
8th Grade	***8th Grade***
(2) Number and operations. The student applies mathematical process standards to represent and use real numbers in a variety of forms. The student is expected to: 8.2.A Extend previous knowledge of sets and subsets using a visual representation to describe relationships between sets of real numbers.	**Knowledge and Skills Statement (8.2) Number and operations.** The student applies mathematical process standards to represent and use real numbers in a variety of forms. (Readiness and Supporting Standard) Essence Statement Recognizes or models relationships between different forms or sets of numbers.
8.2.B 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.	
8.2.C Convert between standard decimal notation and scientific notation.	

8.2.D Order a set of real numbers arising from mathematical and real-world contexts.

n2y Instructional Targets	n2y Middle School Grade Band Lessons and Activities	n2y Supporting Activities
Building Blocks to The Number System ● Recognize and compare numbers showing the symbols >, < or =. ● Match symbolic representations (½, ⅓, ¼, etc.) to fractional parts. ***Compute fluently with multi-digit numbers and find common factors and multiples.*** ● Add, subtract, multiply and divide multi-digit numbers with fluency. ● Fluently add, subtract, multiply and divide numbers with decimals. ***Apply and extend previous understanding of numbers to the system of rational numbers.*** ● Indicate positive and negative numbers (using a number line, temperatures, negative numbers, etc.) in a real-world scenario. ● Graph positive and negative numbers (using a number line, temperatures including negative numbers, etc.) in a real-world scenario. ***Apply and extend previous understandings of operations with fractions to add, subtract, multiply and divide rational numbers.*** ● Add and subtract fractions with like denominators (½, ⅓, ¼, & 1/10) with sums less than or equal to one. ● Using a model, divide a whole number into fractional units (½, ⅓, ¼, 1/8, 1/10) and count the fractional parts of a whole (3 parts of 4, 6 parts of 10, etc.). ● Add and subtract rational numbers. ● Identify the additive inverse. ● Multiply and divide rational numbers.	**Unique** Math Story Problems (Lesson 19) Measure It! (Lesson 20) Money (Lesson 22)	**Unique** ULS Instructional Guides: Mathematics ULS Instructional Tools: Math Pack/Numbers ULS Instructional Tools: Math Pack/Money Standards Connection **News2you** Recipe Page Standards Connection Activities: Which is Greater Activities: Word Problems Activities: Higher Addition Activities: Higher Subtraction Activities: Multiplication

n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
• Students will compare two numbers and use symbols to indicate >, < or =. • Students will apply use of fractional representations of ¼, ⅓, ½, 1/8 and 1/10 in the context of real-world problems and scenarios. • Students will use appropriate operations to solve real-world problems with multi-digit numbers. • Students will use appropriate operations to solve real-world problems with decimals. • Students will identify and label positive and negative numbers in the context of a real-world scenario. • Students will independently identify points in all four quadrants of the coordinate plane. • Students will use objects or a model to add or subtract two fractional units (e.g., ¼ cup + ¼ cup is the same as ½ cup). • Students will use objects or a model to divide a whole into fractional parts (e.g., a candy bar ÷ by 4 people is ¼). • Students will use appropriate operations to add and subtract positive and negative numbers in a real-world scenario (e.g., using a number line). • Students will independently identify the opposite of a number and understand the sum of the numbers equals 0 (e.g., -2 and 2; -2 + 2 = 0). • Students will use appropriate operations to multiply and divide positive and negative numbers.	• Students will compare two groups of objects and determine which group's value is greater, lesser or equal. • Students will recognize appropriate use of ½, ⅓ and ¼ in the context of real-world problems and scenarios. • Students will add, subtract, multiply and divide to solve real-world problems with multi-digit numbers. • Students will add, subtract, multiply and divide to solve real-world problems involving decimals with support. • Students will select positive and negative numbers in a real-world scenario. • Students will locate points in all four quadrants of the coordinate plane, with support. • Students will model addition or subtraction of two fractional units with support. • Students will model groups to divide a whole into fractional units. • Students will add or subtract positive and negative numbers in a real-world scenario (e.g., using a number line). • Students will select the opposite of a number (e.g., -2 and 2; -2 + 2 = 0). • Students will multiply or divide positive and negative numbers in a real-world scenario (e.g., using a number line).	• Students will compare two groups of objects and select the bigger or smaller group when given a narrowed field or errorless choice(s). • Students will select fractional units as part of a real-world problem or scenario. • Students will count a set of objects in an addition, subtraction, multiplication, or division real-world problem with multi-digit numbers through an active participation response (e.g., voice output device, eye gaze choice board). • Students will count a set of objects in an addition, subtraction, multiplication, or division real-world problem with decimals through an active participation response (e.g., voice output device, eye gaze choice board). • Students will participate in labeling positive and negative numbers using an active response mode. • Students will select a point on a graph through an active participation response. • Students will match fractional parts of an object to model the solution to an addition or subtraction problem through an active participation response. • Students will count fractional parts of a whole using an active participation response. • Students will count a set of objects in an addition or subtraction real-world problem involving positive and negative numbers through an active participation response (e.g., voice output device, eye gaze choice board). • Students will participate in labeling the opposite of a number (e.g., -2 and 2; -2 + 2 = 0). • Students will count a set of objects in a multiplication or division real-world problem involving positive and negative numbers through an active participation response (e.g., voice output device, eye gaze choice board).

Standards for Expressions and Equations	Grades 6–8
Texas Essential Knowledge and Skills for Mathematics	**STAAR Alternate 2 Essence Statements**
6th Grade	***6th Grade***
(6) Expressions, equations, and relationships. The student applies mathematical process standards to use multiple representations to describe algebraic relationships. The student is expected to: 6.6.A Identify independent and dependent quantities from tables and graphs.	**Knowledge and Skills Statement (6.6) Expressions, equations, and relationships.** The student applies mathematical process standards to use multiple representations to describe algebraic relationships. (Readiness and Supporting Standard) Essence Statement Identifies linear relationships in a variety of forms.
6.6.B Write an equation that represents the relationship between independent and dependent quantities from a table.	
6.6.C Represent a given situation using verbal descriptions, tables, graphs, and equations in the form y = kx or y = x + b.	
(7) Expressions, equations, and relationships. The student applies mathematical process standards to develop concepts of expressions and equations. The student is expected to: 6.7.A Generate equivalent numerical expressions using order of operations, including whole number exponents and prime factorization.	*These standards are not addressed in the STAAR Alternate 2 Essence Statements.*
6.7.B Distinguish between expressions and equations verbally, numerically, and algebraically.	
6.7.C Determine if two expressions are equivalent using concrete models, pictorial models, and algebraic representations.	
6.7.D Generate equivalent expressions using the properties of operations: inverse, identity, commutative, associative, and distributive properties.	
(9) Expressions, equations, and relationships. The student applies mathematical process standards to use equations and inequalities to represent situations. The student is expected to: 6.9.A Write one-variable, one-step equations and inequalities to represent constraints or conditions within problems.	**Knowledge and Skills Statement (6.9) Expressions, equations, and relationships.** The student applies mathematical process standards to use equations and inequalities to represent situations. (Supporting Standard) Essence Statement Uses equations or inequalities to model real-life situations.
6.9.B Represent solutions for one-variable, one-step equations and inequalities on number lines.	
6.9.C Write corresponding real-world problems given one-variable, one-step equations or inequalities.	
(10) Expressions, equations, and relationships. The student applies mathematical process standards to use equations and inequalities to solve problems. The student is expected to: 6.10.A Model and solve one-variable, one-step equations and inequalities that represent problems, including geometric concepts.	*These standards are not addressed in the STAAR Alternate 2 Essence Statements.*
6.10.B Determine if the given value(s) make(s) one-variable, one-step equations or inequalities true.	
7th Grade	***7th Grade***
(7) Expressions, equations, and relationships. The student applies mathematical process standards to represent linear relationships using multiple representations. 7.7 The student is expected to represent linear relationships using verbal descriptions, tables, graphs, and equations that simplify to the form *y = mx + b*.	*These standards are not addressed in the STAAR Alternate 2 Essence Statements.*
(10) 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: 7.10.A Write one-variable, two-step equations and inequalities to represent constraints or conditions within problems.	
7.10.B Represent solutions for one-variable, two-step equations and inequalities on number lines.	
7.10.C Write a corresponding real-world problem given a one-variable, two-step equation or inequality.	

(11) Expressions, equations, and relationships. The student applies mathematical process standards to solve one-variable equations and inequalities. The student is expected to: 7.11.A Model and solve one-variable, two-step equations and inequalities.	**Knowledge and Skills Statement (7.11) Expressions, equations, and relationships.** The student applies mathematical process standards to solve one-variable equations and inequalities. (Readiness and Supporting Standard) Essence Statement Uses equations or inequalities to model and solve problems.
7.11.B Determine if the given value(s) make(s) one-variable, two-step equations and inequalities true.	
8th Grade	***8th Grade***
(8) 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: 8.8.A Write one-variable equations or inequalities with variables on both sides that represent problems using rational number coefficients and constants.	**Knowledge and Skills Statement (8.8) Expressions, equations, and relationships.** The student applies mathematical process standards to use one-variable equations or inequalities in problem situations. (Readiness and Supporting Standard) Essence Statement Uses equations or inequalities to model and solve problems.
8.8.B 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.	
8.8.C 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.	
(9) Expressions, equations, and relationships. The student applies mathematical process standards to use multiple representations to develop foundational concepts of simultaneous linear equations. 8.9 The student is expected to 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.	*This standard is not addressed in the STAAR Alternate 2 Essence Statements.*

n2y Instructional Targets	n2y Middle School Grade Band Lessons and Activities	n2y Supporting Activities
Building Blocks to Expressions and Equations ● Understand and use +, - and = symbols to solve addition and subtraction problems. ● Model and solve problems involving multiplication or division. ***Apply and extend previous understanding of arithmetic to algebraic expressions.*** ● Use the commutative, associative and distributive properties to add, subtract and multiply whole numbers. ● Write and simplify expressions in which letters stand for unknown numbers within a real-world scenario. ***Reason about and solve one-variable equations and inequalities.*** ● Order a sequence of steps to solve an equation. ***Solve real-life and mathematical problems by using numerical and algebraic expressions and equations.*** ● Solve real-world problems involving addition and subtraction of decimals, using models when needed. ● Solve real-world problems involving multiplication of decimals and whole numbers, using models when needed. ● Write and solve equations with one variable to solve real-world word problems. ● Write and solve inequalities with one variable to solve real-world problems. ***Work with radicals and integer exponents.*** ● Determine the value of a quantity that is squared or cubed.	**Unique** Math Story Problems (Lesson 19) Money (Lesson 22) Algebra (Lesson 25) Core Task 2.1: Attendance Core Task 2.5: Snack Basket	**Unique** ULS Instructional Guides: Mathematics ULS Instructional Tools: Math Pack/Numbers ULS Instructional Tools: Math Pack/Money ULS Instructional Tools: Math Pack/Arrays Standards Connection **News2you** Activities: Vertical Addition; Vertical Subtraction Activities: Writing Addition Problems Activities: Patchwork Addition, Patchwork Subtraction Activities: Word Problems Activities: Multiplication

n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● In the context of a real-world scenario, students will calculate addition and subtraction problems. ● In the context of a real-world scenario, students will model multiplication and division with objects and numbers that show equal groups. ● In the context of a real-world scenario, students will use the commutative, associative, or distributive properties to add, subtract or multiply whole numbers. ● In the context of a real-world scenario, students will write and simplify an expression. ● In the context of a real-world scenario, students will use a combination of operations to solve an equation. ● In the context of a real-world scenario, calculate addition and subtraction problems involving decimals.	● In the context of a real-world scenario, students will model addition and subtraction of two sets of objects. ● Students will count equal numbers of objects in selected groups or in an array. ● In the context of a real-world scenario, students will model addition, subtraction or multiplication of sets of objects. ● In the context of a real-world scenario, students will select numbers to write and simplify an expression. ● In the context of a real-world scenario, students will use operations and models to solve an equation. ● In the context of a real-world scenario, model addition and subtraction of two sets of objects involving decimals. ● Students will count equal numbers involving decimals of objects in selected groups or an array.	● In the context of a real-world scenario, students will count a set of objects in an addition or a subtraction problem using an active participation response (e.g., voice output device, eye gaze choice board). ● Students will count a set of objects in a group through an active participation response (e.g., voice output device, eye gaze choice board). ● Students will count a set of objects in an addition, subtraction or multiplication problem through an active participation response (e.g., voice output device, eye gaze choice board). ● In the context of a real-world scenario, students will select numbers to write an expression. ● In the context of a real-world scenario, students will select numbers and count within an equation.

● In the context of a real-world scenario, students will model multiplication and division with objects and numbers that show equal groups involving decimals. ● In the context of a real-world scenario, students will write and solve an equation with a variable. ● In the context of a real-world scenario, students will write and solve an inequality with a variable. ● Students will identify perfect squares from 0 to 100.	● Students will select pictures and/or numbers to solve an equation with one variable. ● Students will select pictures and numbers to model an inequality with a variable. ● Students will create a representation of a perfect square with support.	● Students will count a set of objects in an addition or a subtraction problem involving decimals through an active participation response. ● Students will count a set of objects in a group involving decimals through an active participation response (e.g., voice output device, eye gaze choice board). ● Given a narrowed field or errorless choice(s), students will identify pictures and/or numbers from an equation with a variable. ● Given a narrowed field or errorless choice(s), students will select pictures and numbers to model an inequality with a variable. ● Students will select blocks to build a model of the perfect square through an active participation response (e.g., voice output device, eye gaze choice board).

Standards for Life Skills for Measurement	Grades 6–8
Texas Essential Knowledge and Skills for Mathematics	**STAAR Alternate 2 Essence Statements**
6th Grade	***6th Grade***
(4) Proportionality. The student applies mathematical process standards to develop an understanding of proportional relationships in problem situations. The student is expected to: 6.4.H Convert units within a measurement system, including the use of proportions and unit rates.	**Knowledge and Skills Statement (6.4) Proportionality.** The student applies mathematical process standards to develop an understanding of proportional relationships in problem situations. (Readiness Standard) Essence Statement Uses conversions within a measurement system to solve problems.
(14) 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: 6.14.A Compare the features and costs of a checking account and a debit card offered by different local financial institutions.	**Knowledge and Skills Statement (6.14) 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. (Supporting Standard) Essence Statement Recognizes good decisions related to income and expenses.
6.14.B Distinguish between debit cards and credit cards.	
6.14.C Balance a check register that includes deposits, withdrawals, and transfers.	
6.14.D Explain why it is important to establish a positive credit history.	
6.14.E Describe the information in a credit report and how long it is retained.	
6.14.F Describe the value of credit reports to borrowers and to lenders.	
6.14.G Explain various methods to pay for college, including through savings, grants, scholarships, student loans, and work-study.	
6.14.H Compare the annual salary of several occupations requiring various levels of post-secondary education or vocational training and calculate the effects of the different annual salaries on lifetime income.	
7th Grade	***7th Grade***
(4) Proportionality. The student applies mathematical process standards to represent and solve problems involving proportional relationships. The student is expected to: 7.4.E Convert between measurement systems, including the use of proportions and the use of unit rates.	**Knowledge and Skills Statement (7.4) Proportionality.** The student applies mathematical process standards to represent and solve problems involving proportional relationships. (Readiness and Supporting Standard) Essence Statement Solves problems involving ratios, rates, or percents.

(13) 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: 7.13.A Calculate the sales tax for a given purchase and calculate income tax for earned wages.	**Knowledge and Skills Statement (7.13) 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. (Supporting Standard) Essence Statement Recognizes ways to increase or decrease income and expenses.
7.13.B 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.	
7.13.C Create and organize a financial assets and liabilities record and construct a net worth statement.	
7.13.D 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.	
7.13.E Calculate and compare simple interest and compound interest earnings.	
7.13.F Analyze and compare monetary incentives, including sales, rebates, and coupons.	
8th Grade	***8th Grade***
(12) 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: 8.12.A Solve real-world problems comparing how interest rate and loan length affect the cost of credit.	**Knowledge and Skills Statement (8.12) 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. (Readiness and Supporting Standard) Essence Statement Compares the results of borrowing money or investing money
8.12.B 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.	
8.12.C Explain how small amounts of money invested regularly, including money saved for college and retirement, grow over time.	
8.12.D Calculate and compare simple interest and compound interest earnings.	
8.12.E Identify and explain the advantages and disadvantages of different payment methods.	
8.12.F Analyze situations to determine if they represent financially responsible decisions and identify the benefits of financial responsibility and the costs of financial irresponsibility.	
8.12.G Estimate the cost of a two-year and four-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.	

n2y Instructional Targets	n2y Middle School Grade Band Lessons and Activities	n2y Supporting Activities
Life Skills for Measurement ● Select units and accurately use measurement tools to solve problems in the context of a daily living activity. ● Tell time on digital and analog clocks within the context of real-world situations or scenarios. ● Apply knowledge of time skills to calculate elapsed time in real-world situations or scenarios. ● Use times of day (e.g., a.m., p.m., morning, afternoon, evening and night) to represent time in real-world situations or scenarios. ● Apply knowledge of time, day and date skills to real-world problem-solving situations and scenarios. ● Apply knowledge of money skills to real-world problem-solving situations and scenarios.	**Unique** Measure It! (Lesson 20) Money (Lesson 22) Schedules and Times (Lesson 23) Core Task 1.1: Daily Schedules Core Task 1.2: Monthly Calendars Core Task 2.2: Calendar Core Task 2.5: Snack Basket	**Unique** ULS Instructional Guides: Mathematics ULS Instructional Tools: Math Pack/Money ULS Instructional Tools: Math Pack/Time Standards Connection **News2you** Recipe Page Standards Connection

n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● Students will independently use measurement tools in daily living skill activities. ● Students will show or tell time on digital and analog clicks within the context of real-world situations or scenarios. ● Students will calculate elapsed time in real-world situations or scenarios. ● Students will identify time of day in real-world situations or scenarios. ● Students will record times and activities to create a schedule on a monthly or daily calendar in the context of real-world situations or scenarios. ● Students will calculate the amount of money needed for a purchase and then determine the coins and bills necessary to complete that purchase.	● Students will identify and use measurement tools appropriate for a supported daily living task. ● Students will show or tell time on digital and analog clocks within the context of real-world situations or scenarios, with support. ● Students will identify elapsed time in real-world situations or scenarios, with support. ● Students will identify time of day in real-world situations or scenarios, with support. ● Students will select activities to create a schedule on a monthly or daily calendar in the context of real-world situations or scenarios, with support. ● Students will match coins and bills to a given price.	● Students will select measurement tools for a daily living task. ● Students will select a time within the context of real-world situations or scenarios from a narrowed field or errorless choice(s). ● Students will select a time to solve a real-world situation or scenario involving elapsed time from a narrowed field or errorless choice(s). ● Students will select the time of day an activity takes place from a narrowed field or errorless choice(s). ● Students will select an activity to create a monthly and/or daily schedule from a narrowed field or errorless choice(s). ● Students will exchange money for a purchase.

Standards for Geometry	Grades 6–8
Texas Essential Knowledge and Skills for Mathematics	**STAAR Alternate 2 Essence Statements**
6th Grade	***6th Grade***
(8) Expressions, equations, and relationships. The student applies mathematical process standards to use geometry to represent relationships and solve problems. The student is expected to: 6.8.A Extend previous knowledge of triangles and their properties to include the sum of angles of a triangle, the relationship between the lengths of sides and measures of angles in a triangle and determining when three lengths form a triangle.	**Knowledge and Skills Statement (6.8) Expressions, equations, and relationships**. The student applies mathematical process standards to use geometry to represent relationships and solve problems. (Readiness and Supporting Standard) Essence Statement Models or uses geometric relationships to solve problems.
6.8.B Model area formulas for parallelograms, trapezoids, and triangles by decomposing and rearranging parts of these shapes.	
6.8.C Write equations that represent problems related to the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers.	
6.8.D Determine solutions for problems involving the area of rectangles, parallelograms, trapezoids, and triangles and volume of right rectangular prisms where dimensions are positive rational numbers.	
(11) Measurement and data. The student applies mathematical process standards to use coordinate geometry to identify locations on a plane. 6.11 The student is expected to graph points in all four quadrants using ordered pairs of rational numbers.	**Knowledge and Skills Statement (6.11) Measurement and data.** The student applies mathematical process standards to use coordinate geometry to identify locations on a plane. (Readiness Standard) Essence Statement Locates points on a coordinate plane.
7th Grade	***7th Grade***
(5) Proportionality. The student applies mathematical process standards to use geometry to describe or solve problems involving proportional relationships. The student is expected to: 7.5.A Generalize the critical attributes of similarity, including ratios within and between similar shapes.	**Knowledge and Skills Statement (7.5) Proportionality.** The student applies mathematical process standards to use geometry to describe or solve problems involving proportional relationships. (Readiness and Supporting Standard) Essence Statement Solves problems using proportional relationships for geometric figures.
7.5.B Describe π as the ratio of the circumference of a circle to its diameter.	
7.5.C Solve mathematical and real-world problems involving similar shape and scale drawings.	
(8) Expressions, equations, and relationships. The student applies mathematical process standards to develop geometric relationships with volume. The student is expected to: 7.8.A 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.	*These standards are not addressed in the STAAR Alternate 2 Essence Statements.*
7.8.B 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.	
7.8.C Use models to determine the approximate formulas for the circumference and area of a circle and connect the models to the actual formulas.	
(9) Expressions, equations, and relationships. The student applies mathematical process standards to solve geometric problems. The student is expected to: 7.9.A Solve problems involving the volume of rectangular prisms, triangular prisms, rectangular pyramids, and triangular pyramids.	**Knowledge and Skills Statement (7.9) Expressions, equations, and relationships.** The student applies mathematical process standards to solve geometric problems. (Readiness and Supporting Standard) Essence Statement Solves problems involving circumference, area, or volume of two or three-dimensional geometric figures.
7.9.B Determine the circumference and area of circles.	
7.9.C Determine the area of composite figures containing combinations of rectangles, squares, parallelograms, trapezoids, triangles, semicircles, and quarter circles.	
7.9.D Solve problems involving the lateral and total surface area of a rectangular prism, rectangular pyramid, triangular prism, and triangular pyramid by determining the area of the shape's net.	

(11) Expressions, equations, and relationships. The student applies mathematical process standards to solve one-variable equations and inequalities. The student is expected to: 7.11.C Write and solve equations using geometry concepts, including the sum of the angles in a triangle, and angle relationships.	**Knowledge and Skills Statement (7.11) Expressions, equations, and relationships.** The student applies mathematical process standards to solve one-variable equations and inequalities. (Readiness and Supporting Standard) Essence Statement Uses equations or inequalities to model and solve problems.
8th Grade	***8th Grade***
(3) Proportionality. The student applies mathematical process standards to use proportional relationships to describe dilations. The student is expected to: 8.3.A Generalize that the ratio of corresponding sides of similar shapes are proportional, including a shape and its dilation.	**Knowledge and Skills Statement (8.3) Proportionality.** The student applies mathematical process standards to use proportional relationships to describe dilations. (Readiness and Supporting Standard) Essence Statement Uses ratios, expressions, or equations to show relationships between similar geometric figures.
8.3.B Compare and contrast the attributes of a shape and its dilation(s) on a coordinate plane.	
8.3.C 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.	
(6) 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: 8.6.A Describe the volume formula $V = Bh$ of a cylinder in terms of its base area and its height.	*These standards are not addressed in the STAAR Alternate 2 Essence Statements.*
8.6.B Model the relationship between the volume of a cylinder and a cone having both congruent bases and heights and connect that relationship to the formulas.	
8.6.C Use models and diagrams to explain the Pythagorean theorem.	
(7) Expressions, equations, and relationships. The student applies mathematical process standards to use geometry to solve problems. The student is expected to: 8.7.A Solve problems involving the volume of cylinders, cones, and spheres.	**Knowledge and Skills Statement (8.7) Expressions, equations, and relationships.** The student applies mathematical process standards to use geometry to solve problems. (Readiness and Supporting Standard) Essence Statement Solve problems involving length, area, or volume, of geometric figures, or involving distance on a coordinate plane.
8.7.B 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.	
8.7.C Use the Pythagorean Theorem and its converse to solve problems.	
8.7.D Determine the distance between two points on a coordinate plane using the Pythagorean Theorem.	
(8) 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: 8.8.D Use informal arguments to establish facts about the angle sum and exterior angle of triangles, the angles created when parallel lines are cut by a transversal, and the angle-angle criterion for similarity of triangles.	**Knowledge and Skills Statement (8.8) Expressions, equations, and relationships.** The student applies mathematical process standards to use one-variable equations or inequalities in problem situations. (Supporting Standard) Essence Statement Recognizes angle relationships in geometric figures.

(10) Two-dimensional shapes. The student applies mathematical process standards to develop transformational geometry concepts. The student is expected to: 8.10.A Generalize the properties of orientation and congruence of rotations, reflections, translations, and dilations of two-dimensional shapes on a coordinate plane.		*These standards are not addressed in the STAAR Alternate 2 Essence Statements.*
8.10.B Differentiate between transformations that preserve congruence and those that do not.		
8.10.C 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.		
8.10.D Model the effect on linear and area measurements of dilated two-dimensional shapes.		
n2y Instructional Targets	**n2y Middle School Grade Band Lessons and Activities**	**n2y Supporting Activities**
Building Blocks to Geometry ● Identify and plot points on a coordinate plane. ***Draw, construct, and describe geometrical figures and describe the relationships between them.*** ● Identify two- and three-dimensional shapes by multiple attributes. ● Solve real-world problems involving scale drawings on a coordinate plane. ***Solve real-world and mathematical problems involving angle measure, area, surface area and volume.*** ● Identify and plot points of a polygon on a coordinate plane. ● Determine the perimeter of a polygon in a real-world scenario. ● Determine the area of a polygon using unit squares in a real-world scenario by positioning rows and counting unit squares that do not overlap. ● Determine the area of a polygon (limited to rectangle or triangle) using the formula for area in a real-world scenario. ● Determine the volume of cubes and rectangular prisms. ● Apply understanding of the area and circumference of a circle to real-world problems. ● Determine the two-dimensional shapes of the faces that make up a three-dimensional object. ● Apply the understanding of surface area to three-dimensional objects. ● Classify angles as right, obtuse, or acute. ● Describe the relationship between angles (supplementary, complementary, vertical, adjacent). ***Understand congruence and similarity using physical models, transparencies, or geometry software.*** ● Identify if a turn (rotation), a flip (reflection), or a slide (translation) has been applied to a shape. ● Identify shapes as similar or congruent. ***Understand and apply the Pythagorean Theorem.***	**Unique** Measure It! (Lesson 20) Geometry (Lesson 24)	**Unique** ULS Monthly Tools: Supporting Files/PowerPoint® Stories ULS Monthly Tools: Supplemental Reading Lists n2y Library Standards Connection **News2you** Recipe Page Standards Connection

● Apply the understanding of the Pythagorean Theorem to a missing side of a right triangle.		
n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● Students will independently identify and plot points in a coordinate plane. ● Students will independently identify two- and three-dimensional shapes by multiple attributes. ● Students will independently find the scale of geometric figures or the length of a side using a scale in real-world situations. ● Students will independently identify and plot points that form a polygon in a coordinate plane (rectangle, square, triangle and rhombus). ● Students will independently find the perimeter of a polygon in a real-world scenario. ● Students will independently use unit squares to find the area of a polygon in a real-world scenario. ● Students will independently use a formula to find the area of a rectangle or triangle in a real-world scenario. ● Students will independently use a model or formula to find the volume of cubes and rectangular prisms. ● Students will independently identify and compare the area and/or circumference of circles. ● Students will independently identify and describe the two-dimensional shapes that make up three-dimensional objects. ● Students will independently find the surface area of three-dimensional objects. ● Students will independently measure and identify angles as right, obtuse or acute. ● Students will independently identify and describe if pairs of angles are supplementary, complementary, vertical or adjacent. ● Students will independently identify if a shape has been turned, flipped or slid. ● Students will independently identify shapes that are similar and congruent. ● Students will independently find the length of the hypotenuse of a right triangle.	● Students will locate and plot points in a coordinate plane, with support. ● Students will identify two and three-dimensional shapes by multiple attributes, with support. ● Students will find the scale of geometric figures or the length of a side using a scale in real-world situations, with support. ● Students will locate and plot points of a polygon in a coordinate plane, with support. ● Students will find the perimeter of a polygon in a real-world scenario, with support. ● Students will use unit squares to find the area of a polygon in a real-world scenario, with support. ● Students will use a formula to find the area of a rectangle or triangle in a real-world scenario, with support. ● Students will use a model to find the volume of a cube or rectangular prism. ● Students will identify and compare the area and/or circumference of circles, with support. ● Students will identify the two-dimensional shapes that make up a three-dimensional object, with support. ● Students will use a net and/or unit squares to find the surface area of three-dimensional objects, with support. ● Students will compare a given angle to a right angle, with support. ● Students will identify pairs of angles that are supplementary, complementary, vertical or adjacent, with support. ● Students will identify if a shape has been turned, flipped, or slid, with support. ● Students will identify shapes that are similar and congruent, with support. ● Students will find the length of the hypotenuse of a right triangle, with support.	● Students will select a point on a graph through an active participation response. ● Students will select a named shape from a narrowed field or errorless choice(s). ● Students will identify the change in a figure by selecting larger, smaller or same. ● Students will select a point of a polygon on a graph through an active participation response. ● Students will participate in counting units to find the perimeter of a polygon using an active response (e.g., voice output device, eye gaze board). ● Students will participate in counting unit squares to find the area of a polygon using an active participation response (e.g., voice output device, eye gaze choice board). ● Students will select the length and width of a rectangle. ● Students will participate in counting unit squares on a model to find the volume of a cube or rectangular prism using an active participation response. ● Students will identify the area and/or circumference of circles by selecting from a narrowed field or errorless choice(s). ● Students will select a face of a three-dimensional object from a narrowed field or errorless choice(s). ● Students will participate in counting unit squares on a net of a three-dimensional object to find the surface area using an active response (e.g., voice output device, eye gaze board). ● Students will select a right, obtuse or acute angle from a narrowed field or errorless choice(s). ● Students will select a picture of a pair of angles that are supplementary, complementary, vertical or adjacent from a narrowed field or errorless choice(s). ● Students will select a turn, flip or slide from a narrowed field or errorless choice(s). ● Given a shape, students will select a congruent shape from a narrowed field or errorless choice(s). ● Students will select the hypotenuse and leg of a right triangle from a narrowed field or errorless choice(s).

Standards for Statistics and Probability	Grades 6–8
Texas Essential Knowledge and Skills for Mathematics	**STAAR Alternate 2 Essence Statements**
6th Grade	***6th Grade***
(12) Measurement and data. The student applies mathematical process standards to use numerical or graphical representations to analyze problems. The student is expected to: 6.12.A Represent numeric data graphically, including dot plots, stem-and-leaf plots, histograms, and box plots.	**Knowledge and Skills Statement (6.12) Measurement and data.** The student applies mathematical process standards to use numerical or graphical representations to analyze problems. (Readiness and Supporting Standard) Essence Statement Displays data or determines characteristics of data.
6.12.B Use the graphical representation of numeric data to describe the center, spread, and shape of the data distribution.	
6.12.C Summarize numeric data with numerical summaries, including the mean and median (measures of center) and the range and interquartile range (IQR) (measures of spread), and use these summaries to describe the center, spread, and shape of the data distribution.	
6.12.D Summarize categorical data with numerical and graphical summaries, including the mode, the percent of values in each category (relative frequency table), and the percent bar graph, and use these summaries to describe the data distribution.	
(13) Measurement and data. The student applies mathematical process standards to use numerical or graphical representations to solve problems. The student is expected to: 6.13.A Interpret numeric data summarized in dot plots, stem-and-leaf plots, histograms, and box plots.	*These standards are not addressed in the STAAR Alternate 2 Essence Statements.*
6.13.B Distinguish between situations that yield data with and without variability.	
7th Grade	***7th Grade***
(6) 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: 7.6.A Represent sample spaces for simple and compound events using lists and tree diagrams.	**Knowledge and Skills Statement (7.6) Proportionality.** The student applies mathematical process standards to use probability and statistics to describe or solve problems involving proportional relationships. (Readiness and Supporting Standard) Essence Statement Uses probability to solve problems involving proportional relationships. .
7.6.B Select and use different simulations to represent simple and compound events with and without technology.	
7.6.C Make predictions and determine solutions using experimental data for simple and compound events.	
7.6.D Make predictions and determine solutions using theoretical probability for simple and compound events.	
7.6.E Find the probabilities of a simple event and its complement and describe the relationship between the two.	
7.6.F Use data from a random sample to make inferences about a population.	
7.6.G Solve problems using data represented in bar graphs, dot plots, and circle graphs, including part-to-whole and part-to-part comparisons and equivalents.	
7.6.H Solve problems using qualitative and quantitative predictions and comparisons from simple experiments.	
7.6.I Determine experimental and theoretical probabilities related to simple and compound events using data and sample spaces.	
(12) Measurement and data. The student applies mathematical process standards to use statistical representations to analyze data. The student is expected to: 7.12.A Compare two groups of numeric data using comparative dot plots or box plots by comparing their shapes, centers, and spreads.	**Knowledge and Skills Statement (7.12) Measurement and data.** The student applies mathematical process standards to use statistical representations to analyze data. (Readiness and Supporting Standard) Essence Statement Interprets data in graphs.
7.12.B Use data from a random sample to make inferences about a population.	
7.12.C Compare two populations based on data in random samples from these populations, including informal comparative inferences about differences between the two populations.	

8th Grade		*8th Grade*
(4) Proportionality. The student applies mathematical process standards to explain proportional and non-proportional relationships involving slope. The student is expected to: 8.4.A 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, (y2 - y1) / (x2 - x1), is the same for any two points (x1 , y1) and (x2 , y2) on the same line.		**Knowledge and Skills Statement (8.4) Proportionality.** The student applies mathematical process standards to explain proportional and non-proportional relationships involving slope. (Readiness and Supporting Standard) Essence Statement Determines the slope of a line or rate of change using a variety of methods.
8.4.B Graph proportional relationships, interpreting the unit rate as the slope of the line that models the relationship.		
8.4.C Use data from a table or graph to determine the rate of change or slope and y- intercept in mathematical and real-world problems.		
(11) Measurement and data. The student applies mathematical process standards to use statistical procedures to describe data. The student is expected to: 8.11.A Construct a scatterplot and describe the observed data to address questions of association such as linear, non-linear, and no association between bivariate data.		**Knowledge and Skills Statement (8.11) Measurement and data.** The student applies mathematical process standards to use statistical procedures to describe data. (Supporting Standard) Essence Statement Determines the association between graphed data.
8.11.B 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.		
8.11.C 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.		
n2y Instructional Targets	**n2y Middle School Grade Band Lessons and Activities**	**n2y Supporting Activities**
Building Blocks to Statistics and Probability ● Read, compare and interpret data from tables and graphs. ***Develop understanding of statistical variability.*** ● Design questions and conduct a survey to gather data. ● Solve for the mean (average) and median of a data set. ***Summarize and describe distributions.*** ● Display, analyze and report data on a graph. ***Use random sampling to draw inferences about a population.*** ● Use samples to gain information and make inferences about a group or population (e.g., According to the preferences shown by 9/10s of the students in class, most teens like pizza). ***Draw informal comparative inferences about two populations.*** ● Analyze data from a graph to compare two groups or populations. ***Investigate chance processes and develop, use and evaluate probability models.*** ● Determine the probability of an event occurring as likely, unlikely, certain or impossible (probability in weather conditions based on reports, etc.).	**Unique** Read This Chart (Lesson 21)	**Unique** ULS Instructional Guides: Mathematics **News2you** Activities: Graphing A & B Worksheet: Food Graph

n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● Students will compare data from tables and graphs to report specific information. ● Students will design a survey to ask questions and collect data to present on a graph. ● Students will calculate an average (mean) and median from data. ● Students will organize data on a graph. ● Students will analyze data from tables and graphs to make a statement about the data. ● Students will compare data from two different populations on a graph. ● On the basis of gathered information, students will determine the probability that something is likely or unlikely to occur.	● Students will identify specific data from a table or graph. ● Students will ask questions to gather data for a survey. ● Students will identify a middle point (average) in a set of data. ● Students will display data on a graph. ● Students will identify information about a group from a table or graph. ● Students will identify specific data from a graph of two different populations. ● Students will use data to determine that something is likely to occur.	● Students will report data that is presented in a table or graph. ● Students will ask a question and select pictures as part of a data-gathering process. ● Students will communicate data information that describes an average. ● Students will select pictures as part of a graph-creating process. ● With support, students will select a statement about a group based on data presented in a table or graph. ● Students will select pictures to indicate data on a graph of two different populations. ● Students will select an activity that is likely to occur.

<table>
<tr><th colspan="3">Standards for Functions — Grades 6–8</th></tr>
<tr><td colspan="2">Texas Essential Knowledge and Skills for Mathematics</td><td>STAAR Alternate 2 Essence Statements</td></tr>
<tr><td colspan="2">8th Grade</td><td>8th Grade</td></tr>
<tr><td colspan="2">(5) 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:
8.5.A Represent linear proportional situations with tables, graphs, and equations in the form of $y = kx$.</td><td rowspan="8">Knowledge and Skills Statement (8.5) Proportionality.
The student applies mathematical process standards to use proportional and nonproportional relationships to develop foundational concepts of functions. (Readiness and Supporting Standard)
Essence Statement Models or solves problems involving proportional or non-proportional relationships.</td></tr>
<tr><td colspan="2">8.5.B Represent linear non-proportional situations with tables, graphs, and equations in the form of $y = mx + b$, where $b \neq 0$.</td></tr>
<tr><td colspan="2">8.5.C 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.</td></tr>
<tr><td colspan="2">8.5.D Use a trend line that approximates the linear relationship between bivariate sets of data to make predictions.</td></tr>
<tr><td colspan="2">8.5.E Solve problems involving direct variation.</td></tr>
<tr><td colspan="2">8.5.F Distinguish between proportional and non-proportional situations using tables, graphs, and equations in the form y = kx or y = mx + b, where b ≠ 0.</td></tr>
<tr><td colspan="2">8.5.G Identify functions using sets of ordered pairs, tables, mappings, and graphs.</td></tr>
<tr><td colspan="2">8.5.I Write an equation in the form y = mx + b to model a linear relationship between two quantities using verbal, numerical, tabular, and graphical representations.</td></tr>
<tr><td>n2y Instructional Targets</td><td>n2y Middle School Grade Band Lessons and Activities</td><td>n2y Supporting Activities</td></tr>
<tr><td rowspan="2">Building Blocks to Functions
● Complete a function table containing at least 2 complete ordered pairs and one missing number of another ordered pair.
● Construct a graph based on a function table.
● Describe how a graph represents a relationship between two quantities.</td><td>Unique</td><td>Unique</td></tr>
<tr><td>Algebra (Lesson 25b)</td><td></td></tr>
<tr><td colspan="3">n2y Differentiated Tasks</td></tr>
<tr><td>Level 3</td><td>Level 2</td><td>Level 1</td></tr>
<tr><td>● In the context of a real-world scenario, students will complete a function table to represent the relationship between two quantities.
● Students will plot points on a graph to represent a function table.
● Students will describe the relationship between two quantities based on a graph (increasing (going up) or decreasing (going down).</td><td>● In the context of a real-world scenario, students will complete a function table with support.
● With support, students will plot points on a graph to represent a function.
● With support, students will identify the relationship between two quantities based on a graph (increasing (going up) or decreasing (going down).</td><td>● In the context of a real-world scenario, students will fill in a function table by selecting numbers from a narrowed field or errorless choice(s).
● Students will select plotted points on a graph from a narrowed field or errorless choice(s).
● Given a narrowed field or errorless choice(s), students will select the relationship between two quantities based on a graph.</td></tr>
</table>

Standards for Number and Quantity: The Real Number System		**Grades 9–12**
Texas Essential Knowledge and Skills for Mathematics		**STAAR Alternate 2 Essence Statements**
The Real Number System is not explicitly addressed in the Texas Essential Knowledge and Skills for Mathematics.		*The Real Number System is not explicitly addressed in the STAAR Alternate 2 Essence Statements, however, ULS provides this instructional target for practice.*
n2y Instructional Targets	**n2y High School Grade Band Lessons and Activities**	**n2y Supporting Activities**
Extend the properties of exponents to rational exponents. ● Determine the value of a quantity that is squared or cubed.	**Unique** Math Story Problems - Multiplication and Division (Lesson 19c)	**Unique** ULS Instructional Guides: Mathematics Instructional Tools: Math Pack/Numbers Instructional Tools: Number Journal Standards Connection
n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● Students will identify perfect squares from 0 to 100.	● Students will create a representation of a perfect square with support.	● Students will select blocks to build a model of the perfect square through an active participation response (e.g., voice output device, eye gaze choice board).

Standards for Number and Quantity: Quantities		**Grades 9–12**
Texas Essential Knowledge and Skills for Mathematics		**STAAR Alternate 2 Essence Statements**
Quantities are not explicitly addressed in the Texas Essential Knowledge and Skills for Mathematics.		*Quantities are not addressed in the STAAR Alternate 2 Essence Statements, however, ULS provides this instructional target for practice.*
n2y Instructional Targets	**n2y High School Grade Band Lessons and Activities**	**n2y Supporting Activities**
Reason quantitatively and use units to solve problems. ● Express quantities to the appropriate precision of measurement.	**Unique** Measure It! (Lesson 20)	**Unique** Standards Connection
n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● Students will independently use measurement tools in daily living skill activities.	● Students will identify and use measurement tools appropriate for a supported daily living task.	● Students will select measurement tools for a daily living task through an active participation response (e.g., voice output device, eye gaze choice board).

Standards for Number and Quantity: The Complex Number System		**Grades 9–12**
Texas Essential Knowledge and Skills for Mathematics		**STAAR Alternate 2 Essence Statements**
The Complex Number System is not explicitly addressed in the Texas Essential Knowledge and Skills for Mathematics.		*The Complex Number System is not addressed in the STAAR Alternate 2 Essence Statements, however, ULS provides these instructional targets for practice.*
n2y Instructional Targets	**n2y High School Grade Band Lessons and Activities**	**n2y Supporting Activities**
Perform arithmetic operations with complex numbers. ● Use the commutative, associative and distributive properties to add, subtract and multiply whole numbers. ● Solve real-world problems involving addition and subtraction of decimals, using models when needed. ● Solve real-world problems involving multiplication of decimals and whole numbers, using models when needed.	**Unique** Money (Lesson 22)	**Unique**
n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● In the context of a real-world scenario, students will use the commutative, associative, or distributive properties to add, subtract or multiply whole numbers. ● In the context of a real-world scenario, students will calculate addition and subtraction problems involving decimals. ● In the context of a real-world scenario, students will model multiplication and division with objects and numbers that show equal groups involving decimals.	● In the context of a real-world scenario, students will model addition, subtraction or multiplication of sets of objects. ● In the context of a real-world scenario, students will model addition and subtraction of two sets of objects involving decimals. ● Students will count equal numbers involving decimals of objects in selected groups or an array.	● Students will count a set of objects in an addition, subtraction or multiplication problem through an active participation response (e.g., voice output device, eye gaze choice board). ● Students will count a set of objects in an addition or a subtraction problem involving decimals through an active participation response (e.g., voice output device, eye gaze choice board). ● Students will count a set of objects in a group involving decimals through an active participation response (e.g., voice output device, eye gaze choice board).

Standards for Algebra: Seeing Structure in Expressions — Grades 9–12

Texas Essential Knowledge and Skills for Mathematics		STAAR Alternate 2 Essence Statements
Algebra I		***Algebra I***
(11) Number and algebraic methods. The student applies the mathematical process standards and algebraic methods to rewrite algebraic expressions into equivalent forms. The student is expected to: A.11.A Simplify numerical radical expressions involving square roots.		**Knowledge and Skills Statement (A.11) Number and algebraic methods.** The student applies the mathematical process standards and algebraic methods to rewrite algebraic expressions into equivalent forms. (Readiness and Supporting Standard) Essence Statement Simplifies expressions.
A.11.B Simplify numeric and algebraic expressions using the laws of exponents, including integral and rational exponents.		

n2y Instructional Targets	n2y High School Grade Band Lessons and Activities	n2y Supporting Activities
Building Blocks to Algebra ● Understand and use +, - and = symbols to solve addition and subtraction problems. ● Model and solve problems involving multiplication or division. ● Indicate positive and negative numbers (using a number line, temperatures including negative numbers, etc.) in a real-world scenario. ● Add and subtract rational numbers. ● Identify the additive inverse. ● Multiply and divide rational numbers. ***Interpret the structure of expressions.*** ● Identify the different parts of an expression that represents a real-world situation and explain their meaning. ***Write expressions in equivalent forms to solve problems.*** ● Write and simplify an expression that represents a real-world situation.	**Unique** Math Story Problems (Lesson 19) Algebra (Lesson 25) Core Task 2.1: Attendance Core Task 2.5: Snack Basket	**Unique** Instructional Guide: Mathematics Instructional Tools: Math Pack/Numbers Instructional Tools: Math Pack/Arrays Standards Connection **News2you** Activities: Vertical Addition Activities: Vertical Subtraction Activities: Writing Addition Problems Activities: Patchwork Addition Activities: Patchwork Subtraction Activities: Word Problems Activities: Higher Addition Activities: Higher Subtraction

n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● In the context of a real-world scenario, students will calculate addition and subtraction problems. ● In the context of a real-world scenario, students will model multiplication and division with objects and numbers that show equal groups. ● Students will identify and label positive and negative numbers in the context of a real-world scenario. ● Students will use appropriate operations to add and subtract positive and negative numbers in a real-world scenario (e.g., using a number line). ● Students will independently identify the opposite of a number and understand the sum of the numbers equals 0 (e.g., -2 and 2; -2 + 2 = 0). ● Students will use appropriate operations to multiply and divide positive and negative numbers. ● Students will identify and explain the parts of an expression. ● In the context of a real-world scenario, students write and simplify an expression.	● In the context of a real-world scenario, students will model addition and subtraction of two sets of objects. ● Students will count equal numbers of objects in selected groups or an array. ● Students will select positive and negative numbers in a real-world scenario with support. ● Students will add or subtract positive and negative numbers in a real-world scenario (e.g., using a number line) with support. ● Students will select the opposite of a number (e.g. -2 and 2; -2 + 2 = 0) with support. ● Students will multiply or divide positive and negative numbers in a real-world scenario (e.g., using a number line) with support. ● Students will identify the parts of an expression with support. ● In the context of a real-world scenario, students will select numbers to write and simplify an expression with support.	● Students will count a set of objects in an addition or subtraction problem using an active participation response (e.g., voice output device, eye gaze choice board). ● Students will count a set of objects in a group using an active participation response (e.g., voice output device, eye gaze choice board). ● Students will participate in labeling positive and negative numbers using an active response mode. ● Students will count a set of objects in an addition or subtraction real-world problem involving positive and negative numbers through an active participation response (e.g., voice output device, eye gaze choice board). ● Students will make a selection from a narrowed field or errorless choice(s) to identify the opposite of a number (e.g., -2 and 2; -2 + 2 = 0). ● Students will count a set of objects in a multiplication or division real-world problem involving positive and negative numbers through an active participation response (e.g., voice output device, eye gaze choice board). ● Students will select a part of an expression from a narrowed field or errorless choice(s). ● In the context of a real-world scenario, students will select numbers to write an expression from a narrowed field or errorless choice(s).

<table>
<tr><th colspan="3">Standards for Algebra: Arithmetic with Polynomials and Rational Expressions — Grades 9–12</th></tr>
<tr><th colspan="2">Texas Essential Knowledge and Skills for Mathematics</th><th>STAAR Alternate 2 Essence Statements</th></tr>
<tr><td colspan="2">Algebra I</td><td rowspan="7">Knowledge and Skills Statement (A.10) Number and algebraic methods.
The student applies the mathematical process standards and algebraic methods to rewrite in equivalent forms and perform operations on polynomial expressions. (Readiness and Supporting Standard)
Essence Statement Determines different forms of expressions using operations or properties.</td></tr>
<tr><td colspan="2">(10) Number and algebraic methods. The student applies the mathematical process standards and algebraic methods to rewrite in equivalent forms and perform operations on polynomial expressions. The student is expected to:
A.10.A Add and subtract polynomials of degree one and degree two.</td></tr>
<tr><td colspan="2">A.10.B Multiply polynomials of degree one and degree two.</td></tr>
<tr><td colspan="2">A.10.C Determine the quotient of a polynomial of degree one and polynomial of degree two when divided by a polynomial of degree one and polynomial of degree two when the degree of the divisor does not exceed the degree of the dividend.</td></tr>
<tr><td colspan="2">A.10.D Rewrite polynomial expressions of degree one and degree two in equivalent forms using the distributive property.</td></tr>
<tr><td colspan="2">A.10.E Factor, if possible, trinomials with real factors in the form $ax^2 + bx + c$, including perfect square trinomials of degree two.</td></tr>
<tr><td colspan="2">A.10.F Decide if a binomial can be written as the difference of two squares and, if possible, use the structure of a difference of two squares to rewrite the binomial.</td></tr>
<tr><th>n2y Instructional Targets</th><th>n2y High School Grade Band Lessons and Activities</th><th>n2y Supporting Activities</th></tr>
<tr><td rowspan="2">Perform arithmetic operations on polynomials.
● Add and subtract polynomials.</td><td>Unique</td><td>Unique</td></tr>
<tr><td>Algebra (Lesson 25b)</td><td>ULS Instructional Guides: Mathematics
Instructional Tools: Math Pack/Numbers
Instructional Tools: Number Journal</td></tr>
<tr><th colspan="3">n2y Differentiated Tasks</th></tr>
<tr><th>Level 3</th><th>Level 2</th><th>Level 1</th></tr>
<tr><td>● Students will independently solve equations involving adding and subtracting polynomials in the context of real-world problems.</td><td>● Students will solve equations involving adding and subtracting polynomials in the context of real-world problems with support.</td><td>● Students will solve equations involving adding and subtracting polynomials in the context of real-world problems with support.</td></tr>
</table>

Standards for Algebra: Creating Equations — Grades 9–12

Texas Essential Knowledge and Skills for Mathematics	STAAR Alternate 2 Essence Statements
Algebra I	***Algebra I***
(2) 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: A.2.A Determine the domain and range of a linear function in mathematical problems; determine reasonable domain and range values for real-world situations, both continuous and discrete; and represent domain and range using inequalities.	These standards are not addressed in the STAAR Alternate 2 Essence Statements.
A.2.B 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.	
A.2.C Write linear equations in two variables given a table of values, a graph, and a verbal description.	
A.2.D Write and solve equations involving direct variation.	
A.2.E Write the equation of a line that contains a given point and is parallel to a given line.	
A.2.F Write the equation of a line that contains a given point and is perpendicular to a given line.	
A.2.G Write an equation of a line that is parallel or perpendicular to the X or Y axis and determine whether the slope of the line is zero or undefined	
A.2.H Write linear inequalities in two variables given a table of values, a graph, and a verbal description.	
A.2.I Write systems of two linear equations given a table of values, a graph, and a verbal description.	

n2y Instructional Targets	n2y High School Grade Band Lessons and Activities	n2y Supporting Activities
Building Blocks to Algebra ● Graph positive and negative numbers (using a number line, temperatures including negative numbers, etc.) in a real-world scenario. ***Create equations that describe numbers or relationships.*** ● Represent a real-world situation with an equation or inequality. ***Graph equations on coordinate axes.*** ● Graph coordinate points of an equation.	**Unique** Algebra (Lesson 25)	**Unique** ULS Instructional Guides: Mathematics ULS Instructional Tools: Math Pack/Numbers ULS Instructional Tools: Math Pack/Arrays Standards Connection **News2you** Activities: Vertical Addition; Vertical Subtraction Activities: Writing Addition Problems Activities: Patchwork Addition; Patchwork Subtraction Activities: Word Problems Activities: Higher Addition; Higher Subtraction

n2y Differentiated Tasks

Level 3	*Level 2*	*Level 1*
● Students will independently identify points in all four quadrants of the coordinate plane. ● Students will write and solve an equation with a variable. ● Students will plot points on a graph to represent an equation.	● Students will locate points in all four quadrants of the coordinate plane with support. ● Students will select pictures and numbers to model an equation with a variable with support. ● Students will plot points on a graph using coordinate points of an equation with support.	● Students will select points in a quadrant of the coordinate plane from a narrowed field or errorless choice(s). ● Students will select a picture or number to model an equation with a variable from a narrowed field or errorless choice(s). ● Students will select plotted points on a graph of an equation from a narrowed field or errorless choice(s).

Standards for Algebra: Reasoning with Equations and Inequalities — Grades 9–12

Texas Essential Knowledge and Skills for Mathematics	STAAR Alternate 2 Essence Statements
Algebra I	***Algebra I***
(5) Linear functions, equations, and inequalities. The student applies the mathematical process standards to solve, with and without technology, linear equations and evaluate the reasonableness of their solutions. The student is expected to: A.5.A Solve linear equations in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides.	**Knowledge and Skills Statement (A.5) Linear functions, equations, and inequalities.** The student applies the mathematical process standards to solve, with and without technology, linear equations and evaluate the reasonableness of their solutions. (Readiness and Supporting Standard) Essence Statement Solves linear equations and systems.
A.5.B Solve linear inequalities in one variable, including those for which the application of the distributive property is necessary and for which variables are included on both sides.	
A.5.C Solve systems of two linear equations with two variables for mathematical and real-world problems.	

n2y Instructional Targets	n2y High School Grade Band Lessons and Activities	n2y Supporting Activities
Building Blocks to Algebra ● Recognize and compare numbers showing the symbols >, < or =. ***Understand solving equations as a process of reasoning and explain the reasoning.*** ● Order a sequence of steps to solve an equation. ***Solve equations and inequalities in one variable.*** ● Use equations to solve real-world problems when a part is unknown. ● Use inequalities (e.g., < and >) to solve real-world problems in which a part is unknown. ***Represent and solve equations and inequalities graphically.*** ● Interpret the meaning of a point on the graph of a line.	**Unique** Math Story Problems (Lesson 19) Algebra (Lesson 25)	**Unique** ULS Instructional Guides: Mathematics Instructional Tools: Math Pack/Numbers Instructional Tools: Math Pack/Arrays Standards Connection **News2you** Activities: Which is Greater? Activities: Vertical Addition Activities: Vertical Subtraction Activities: Writing Addition Problems Activities: Patchwork Addition Activities: Patchwork Subtraction Activities: Word Problems Activities: Multiplication

n2y Differentiated Tasks

Level 3	*Level 2*	*Level 1*
● Students will compare two numbers and use symbols to indicate >, < or =. ● In the context of a real-world scenario students will use a combination of operations to solve an equation. ● Students will solve a real-world problem using equations involving one variable. ● Students will solve a real-world problem using inequalities involving one variable. ● Students will identify and explain the point on a graph of a line.	● Students will compare two groups of objects and determine which group is bigger, smaller or equal in amount. ● In the context of a real-world scenario, students will use operations and models to solve an equation. ● Students will solve real-world problems using equations involving one variable and models with support. ● Students will solve a real-world problem using inequalities involving one variable and models with support. ● Students will identify the point on a graph of a line with support.	● Students will compare two groups of objects and select the bigger or smaller group when given a narrowed field or errorless choice(s). ● In the context of a real-world scenario, students will select numbers from a narrowed field or errorless choice(s). ● Students will select numbers from a narrowed field or errorless choice(s) to solve a real-world problem involving one variable. ● Students will select the point on a graph of a line from a narrowed field or errorless choice(s).

Standards for Functions: Interpreting Functions		Grades 9–12
Texas Essential Knowledge and Skills for Mathematics		**STAAR Alternate 2 Essence Statements**
Algebra I		***Algebra I***
(3) 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: A.3.A 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 $y - y_1 = m(x - x_1)$.		**Knowledge and Skills Statement (A.3) 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. (Readiness and Supporting Standard) Essence Statement Determines key features or graphical solutions for linear functions.
A.3.B Calculate the rate of change of a linear function represented tabularly, graphically, or algebraically in context of mathematical and real-world problems.		
A.3.E Determine the effects on the graph of the parent function $f(x) = x$ when $f(x)$ is replaced by $af(x)$, $f(x) + d$, $f(x - c)$, $f(bx)$ for specific values of a, b, c, and d.		
(9) Exponential functions and equations. The student applies the mathematical process standards when using properties of exponential functions and their related transformations to write, graph, and represent in multiple ways exponential equations and evaluate, with and without technology, the reasonableness of their solutions. The student formulates statistical relationships and evaluates their reasonableness based on real-world data. The student is expected to: A.9.A Determine the domain and range of exponential functions of the form $f(x) = ab^x$ and represent the domain and range using inequalities.		**Knowledge and Skills Statement (A.9) Exponential functions and equations.** The student applies the mathematical process standards when using properties of exponential functions and their related transformations to write, graph, and represent in multiple ways exponential equations and evaluate, with and without technology, the reasonableness of their solutions. The student formulates statistical relationships and evaluates their reasonableness based on real-world data. (Readiness and Supporting Standard) Essence Statement Uses exponential functions to model or solve real-world problems.
A.9.B Interpret the meaning of the values of a and b in exponential functions of the form $f(x) = ab^x$ in real-world problems.		
A.9.C Write exponential functions in the form $f(x) = ab^x$ (where b is a rational number) to describe problems arising from mathematical and real-world situations, including growth and decay.		
A.9.D Graph exponential functions that model growth and decay and identify key features, including y- intercept and asymptote, in mathematical and real-world problems.		
A.9.E Write, using technology, exponential functions that provide a reasonable fit to data and make predictions for real-world problems.		
(12) Number and algebraic methods. The student applies the mathematical process standards and algebraic methods to write, solve, analyze, and evaluate equations, relations, and functions. The student is expected to: A.12.A Decide whether relations represented verbally, tabularly, graphically, and symbolically define a function.		**Knowledge and Skills Statement (A.12) Number and algebraic methods.** The student applies the mathematical process standards and algebraic methods to write, solve, analyze, and evaluate equations, relations, and functions. (Supporting Standard) Essence Statement Identifies or solves functions, sequences, or formulas.
A.12.B Evaluate functions, expressed in function notation, given one or more elements in their domains.		
A.12.C Identify terms of arithmetic and geometric sequences when the sequences are given in function form using recursive processes.		
A.12.D Write a formula for the n^{th} term of arithmetic and geometric sequences, given the value of several of their terms.		
A.12.E Solve mathematic and scientific formulas, and other literal equations, for a specified variable.		
n2y Instructional Targets	**n2y High School Grade Band Lessons and Activities**	**n2y Supporting Activities**
Understand the concept of a function and use function notation. ● Use functions to solve real-world problems. ***Interpret functions that arise in applications in terms of the context.*** ● Describe the rate of change of a function using words and numbers.	**Unique** Algebra (Lesson 25b)	**Unique** ULS Instructional Guides: Mathematics Instructional Tools: Math Pack/Numbers Instructional Tools: Number Journal Standards Connection

n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● Students will solve a real-world problem using a function. ● Students will identify and explain the rate of change of a function.	● Students will solve a real-world problem using a function and models with support. ● Students will identify the rate of change of a function with support.	● Students will select numbers from a narrowed field or errorless choice(s) to solve real-world problems. ● Students will select a rate of change of a function from a narrowed field or errorless choice(s).

<table>
<tr><th colspan="3">Standards for Functions: Building Functions — Grades 9–12</th></tr>
<tr><th>Texas Essential Knowledge and Skills for Mathematics</th><th colspan="2">STAAR Alternate 2 Essence Statements</th></tr>
<tr><td>Algebra I</td><td colspan="2">Algebra I</td></tr>
<tr><td>(3) 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:
A.3.C Graph linear functions on the coordinate plane and identify key features, including x- intercept, y- intercept, zeros, and slope, in mathematical and real-world problems.</td><td colspan="2" rowspan="5">Knowledge and Skills Statement (A.3) 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. (Readiness and Supporting Standard)
Essence Statement Determines key features or graphical solutions for linear functions.</td></tr>
<tr><td>A.3.D Graph the solution set of linear inequalities in two variables on the coordinate plane.</td></tr>
<tr><td>A.3.F Graph systems of two linear equations in two variables on the coordinate plane and determine the solutions if they exist.</td></tr>
<tr><td>A.3.G Estimate graphically the solutions to systems of two linear equations with two variables in real-world problems.</td></tr>
<tr><td>A.3.H Graph the solution set of systems of two linear inequalities in two variables on the coordinate plane.</td></tr>
<tr><th>n2y Instructional Targets</th><th>n2y High School Grade Band Lessons and Activities</th><th>n2y Supporting Activities</th></tr>
<tr><td rowspan="2">Build functions that model a relationship between two quantities.
● Create a function that represents the relationship between two quantities.
● Construct a graph that represents a defined change in a function.</td><td>Unique</td><td>Unique</td></tr>
<tr><td>Algebra (Lesson 25b)</td><td>ULS Instructional Guides: Mathematics
Instructional Tools: Math Pack/Numbers
Instructional Tools: Number Journal
Standards Connection</td></tr>
<tr><th colspan="3">n2y Differentiated Tasks</th></tr>
<tr><th>Level 3</th><th>Level 2</th><th>Level 1</th></tr>
<tr><td>● In the context of a real-world scenario, students will complete a function table to represent the relationship between two quantities.
● Students will plot points on a graph to represent the rate of change of a function.</td><td>● In the context of a real-world scenario, students will complete a function table with support.
● With support, students will plot points on a graph using coordinate points.</td><td>● In the context of a real-world scenario, students will select numbers from a narrowed field or errorless choice(s) to fill in a function table.
● Students will select plotted points on a graph from a narrowed field or errorless choice(s).</td></tr>
</table>

Standards for Functions: Linear, Quadratic and Exponential Models		**Grades 9–12**
Texas Essential Knowledge and Skills for Mathematics		**STAAR Alternate 2 Essence Statements**
Algebra I		***Algebra I***
(6) Quadratic functions and equations. The student applies the mathematical process standards when using properties of quadratic functions to write and represent in multiple ways, with and without technology, quadratic equations. The student is expected to: A.6.A Determine the domain and range of quadratic functions and represent the domain and range using inequalities.		**Knowledge and Skills Statement (A.6) Quadratic functions and equations.** The student applies the mathematical process standards when using properties of quadratic functions to write and represent in multiple ways, with and without technology, quadratic equations. (Readiness and Supporting Standard) Essence Statement Determines quadratic functions using graphs or attributes.
A.6.B Write equations of quadratic functions given the vertex and another point on the graph, write the equation in vertex form $f(x) = a(x - h)^2 + k$, and rewrite the equation from vertex form to standard form $f(x) = ax^2 + bx + c$.		
A.6.C Write quadratic functions when given real solutions and graphs of their related equations.		
(7) Quadratic functions and equations. The student applies the mathematical process standards when using graphs of quadratic functions and their related transformations to represent in multiple ways and determine, with and without technology, the solutions to equations. The student is expected to: A.7.A Graph quadratic functions on the coordinate plane and use the graph to identify key attributes, if possible, including x- intercept, y- intercept, zeros, maximum value, minimum values, vertex, and the equation of the axis of symmetry.		**Knowledge and Skills Statement (A.7) Quadratic functions and equations.** The student applies the mathematical process standards when using graphs of quadratic functions and their related transformations to represent in multiple ways and determine, with and without technology, the solutions to equations. (Readiness and Supporting Standard) Essence Statement Recognizes graphs and attributes of quadratic functions.
A.7.B Describe the relationship between the linear factors of quadratic expressions and the zeros of their associated quadratic functions.		
A.7.C Determine the effects on the graph of the parent function $f(x) = x^2$ when $f(x)$ is replaced by $af(x)$, $f(x) + d$, $f(x - c)$, $f(bx)$ for specific values of a, b, c, and d.		
(8) Quadratic functions and equations. The student applies the mathematical process standards to solve, with and without technology, quadratic equations and evaluate the reasonableness of their solutions. The student formulates statistical relationships and evaluates their reasonableness based on real-world data. The student is expected to: 8.8.A Solve quadratic equations having real solutions by factoring, taking square roots, completing the square, and applying the quadratic formula.		These standards are not addressed in the STAAR Alternate 2 Essence Statements.
8.8.B Write, using technology, quadratic functions that provide a reasonable fit to data to estimate solutions and make predictions for real-world problems.		
n2y Instructional Targets	**n2y High School Grade Band Lessons and Activities**	**n2y Supporting Activities**
NOT DIRECTLY ADDRESSED IN UNIQUE LEARNING SYSTEM		

Standards for Life Skills for Measurement		**Grades 9–12**
Texas Essential Knowledge and Skills for Mathematics		**STAAR Alternate 2 Essence Statements**
Life Skills for Measurement are not addressed in the Texas Essential Knowledge and Skills for Mathematics for this grade band.		*Life Skills for Measurement are not addressed in the STAAR Alternate 2 Essence Statements for this grade band, however, ULS provides these instructional targets for life skill practice.*
n2y Instructional Targets	**n2y High School Grade Band Lessons and Activities**	**n2y Supporting Activities**
Life Skills for Measurement ● Select units and use measurement tools accurately to solve problems in the context of a daily living activity. ● Tell time on digital and analog clocks within the context of real-world situations or scenarios. ● Use times of day (e.g,. a.m., p.m., morning, afternoon, evening and night) to represent time in real-world situations or scenarios. ● Apply knowledge of time skills to calculate forward and backward elapsed time in real-world situations or scenarios. ● Apply knowledge of time, day and date skills to real-world problem-solving situations and scenarios. ● Apply knowledge of money skills to real-world problem-solving situations and scenarios.	**Unique** Measure It! (Lesson 20) Money (Lesson 22) Schedules and Times (Lesson 23) Core Task 1.1: Daily Schedules Core Task 1.2: Monthly Calendars Core Task 2.2: Calendar Core Task 2.5: Snack Basket	**Unique** ULS Instructional Guides: Mathematics ULS Instructional Tools: Math Pack/Money ULS Instructional Tools: Math Pack/Time Standards Connection **News2you** Recipe Page Standards Connection Activities: Counting Money Activities: Dollars & Cents Activities: Making Change
n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● Students will independently use measurement tools in daily living skill activities. ● Students will show or tell time on digital and analog clocks within the context of real-world situations or scenarios. ● Students will identify time of day in real-world situations or scenarios. ● Students will calculate forward and backward elapsed time in real-world situations or scenarios. ● Students will record times and activities to create and use a schedule on a monthly and/or daily calendar in the context of real-world situations or scenarios. ● Students will calculate the amount of money needed for a purchase and ascertain the coins and bills required to complete that purchase.	● Students will identify and use measurement tools appropriate for a supported daily living task. ● Students will show or tell time on digital and analog clocks within the context of real-world situations or scenarios, with support. ● Students will identify time of day in real-world situations or scenarios with support. ● Students will identify elapsed time in real-world situations or scenarios, with support. ● Students will select activities to create and use a schedule on a monthly and/or daily calendar in the context of real-world situations or scenarios, with support. ● Students will match coins and bills to a given price.	● Students will select a measurement tool for a daily living task. ● Students will select a time within the context of a real-world situation or scenario from a narrowed field or errorless choice(s). ● Students will select the time of day an activity takes place from a narrowed field or errorless choice(s). ● Students will select a time to solve a real-world situation or scenario involving elapsed time from a narrowed field or errorless choice(s). ● Students will select an activity to create and use a monthly and/or daily schedule from a narrowed field or errorless choice(s). ● Students will exchange money for a purchase.

Standards for Life Skills for Ratio and Proportional Relationships		Grades 9–12
Texas Essential Knowledge and Skills for Mathematics		**STAAR Alternate 2 Essence Statements**
Life Skills for Measurement are not addressed in the Texas Essential Knowledge and Skills for Mathematics for this grade band.		*Life Skills for Ratio and Proportional Relationships are not addressed in the STAAR Alternate 2 Essence Statements for this grade band, however, ULS provides these instructional targets for life skill practice.*
n2y Instructional Targets	**n2y High School Grade Band Lessons and Activities**	**n2y Supporting Activities**
Life Skills for Ratio and Proportional Relationships ● Identify and write a ratio to compare part-to-part and part-to-whole relationships (e.g., If for every lollipop in the bag, there are two candy bars, a 1:2 ratio exists). ● Solve real-world problems involving unit rate (e.g., If it takes one hour to make one pillow, how long will it take to make four pillows?). ● Apply understanding of percentages in real-world scenarios (10% tip, 30% sale, etc.).	**Unique** Money (Lesson 22: Standards Connection) Algebra (Lesson 25b)	**Unique** ULS Instructional Guides: Mathematics ULS Instructional Tools: Math Pack/Money Standards Connection
n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● Students will identify and write a ratio to describe part-to-part and part-to-whole relationships in the context of a real-world scenario. ● Students will solve whole number, time and money problems involving unit rate. ● Students will calculate percentages in real-world scenarios.	● Students will model part-to-part and part-to-whole relationships in the context of a real-world scenario. ● Students will identify whole number, time or money amounts in the context of a unit rate scenario. ● Students will locate a percentage amount from a chart.	● Students will match objects represented in part-to-part and part-to-whole relationships in the context of a real-world scenario. ● Students will select a whole number, time or money amount in the context of a unit rate scenario. ● Students will identify a number that represents a percentage.

<table>
<tr><th colspan="3">Standards for Geometry: Congruence — Grades 9–12</th></tr>
<tr><th>Texas Essential Knowledge and Skills for Mathematics</th><th colspan="2">STAAR Alternate 2 Essence Statements</th></tr>
<tr><td colspan="2">Geometry</td><td rowspan="9">Congruence is not addressed in the STAAR Alternate 2 Essence Statements, however, ULS provides these instructional targets for practice.</td></tr>
<tr><td colspan="2">(3) Coordinate and transformational geometry. The student uses the process skills to generate and describe rigid transformations (translation, reflection, and rotation) and non-rigid transformations (dilations that preserve similarity and reductions and enlargements that do not preserve similarity). The student is expected to:
G.3.A Describe and perform transformations of figures in a plane using coordinate notation.</td></tr>
<tr><td colspan="2">G.3.B Determine the image or pre-image of a given two-dimensional figure under a composition of rigid transformations, a composition of non-rigid transformations, and a composition of both, including dilations where the center can be any point in the plane.</td></tr>
<tr><td colspan="2">G.3.C Identify the sequence of transformations that will carry a given pre-image onto an image on and off the coordinate plane.</td></tr>
<tr><td colspan="2">G.3.D Identify and distinguish between reflectional and rotational symmetry in a plane figure.</td></tr>
<tr><td colspan="2">(4) Logical argument and constructions. The student uses the process skills with deductive reasoning to understand geometric relationships. The student is expected to:
G.4.A Distinguish between undefined terms, definitions, postulates, conjectures, and theorems.</td></tr>
<tr><td colspan="2">G.4.B Identify and determine the validity of the converse, inverse, and contrapositive of a conditional statement and recognize the connection between a biconditional statement and a true conditional statement with a true converse.</td></tr>
<tr><td colspan="2">G.4.C Verify that a conjecture is false using a counterexample.</td></tr>
<tr><td colspan="2">G.4.D Compare geometric relationships between Euclidean and spherical geometries, including parallel lines and the sum of the angles in a triangle.</td></tr>
<tr><th>n2y Instructional Targets</th><th>n2y High School Grade Band Lessons and Activities</th><th>n2y Supporting Activities</th></tr>
<tr><td rowspan="2">Experiment with transformations in the plane.
● Identify and use points, lines (parallel, perpendicular, intersecting) and line segments within the context of real-world situations.
● Establish congruency by applying a turn (rotation), a flip (reflection), or a slide (translation) to match objects of similar size and shape.
Understand congruence in terms of rigid motions.
● Apply the understanding of similarity and congruence in real-world situations.
● Determine if triangles are similar by comparing angles and sides (SSS, AA).
Prove geometric theorems.
● Classify angles according to measurement (right, acute, obtuse) and/or angle relationships (adjacent, vertical, supplementary and complementary).
● Determine the type of triangle by comparing angles and sides (scalene, isosceles, equilateral).</td><td>Unique</td><td>Unique</td></tr>
<tr><td>Geometry (Lesson 24)</td><td>ULS Instructional Guides: Mathematics
ULS Instructional Tools: Math Pack/Shapes
Standards Connection</td></tr>
</table>

n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● Students will independently describe and/or construct points, lines, parallel lines, perpendicular lines, intersecting lines and line segments in real-world situations. ● Students will independently describe if a turn, flip, and/or slide has been applied to an object. ● Students will independently identify and describe shapes that are similar and congruent in the context of real-world scenarios. ● Students will independently identify similar triangles by comparing the angles and sides. ● Students will independently use angle measurements to identify angles and/or angle relationships. ● Students will independently compare the measurements of the angles and sides of a triangle to determine if it is a scalene, equilateral or isosceles triangle.	● Students will identify and/or make points, lines, parallel lines, perpendicular lines, intersecting lines and line segments in a real-world situation, with support. ● Students will identify if a turn, flip or slide has been applied to an object, with support. ● Students will identify shapes that are similar and congruent in the context of real-world scenarios, with support. ● Students will identify similar triangles, with support. ● Students will identify angles and/or angle relationships, with support. ● Students will compare the measurements of the angles and sides of a triangle to determine if it is a scalene, equilateral or isosceles triangle, with support.	● Students will select a point, line segment, line, parallel lines, perpendicular lines or intersecting lines from a narrowed field or errorless choice(s). ● Students will select a turn, flip or slide from a narrowed field or errorless choice(s). ● Given a shape, students will select a congruent shape from a narrowed field or errorless choice(s). ● Students will indicate if two triangles are similar by making a selection from a narrowed field or errorless choice(s). ● Students will select a named angle or pair of angles from a narrowed field or errorless choice(s). ● Students will make a selection to indicate if a triangle is scalene, isosceles or equilateral from a narrowed field or errorless choice(s).

Standards for Geometry: Similarity, Right Triangles and Trigonometry	Grade 9–12
Texas Essential Knowledge and Skills for Mathematics	**STAAR Alternate 2 Essence Statements**
Geometry	*Similarity, Right Triangles and Trigonometry is not addressed in the STAAR Alternate 2 Essence Statements, however, ULS provides these instructional targets for practice.*
(5) Logical argument and constructions. The student uses constructions to validate conjectures about geometric figures. The student is expected to: G.5.A Investigate patterns to make conjectures about geometric relationships, including angles formed by parallel lines cut by a transversal, criteria required for triangle congruence, special segments of triangles, diagonals of quadrilaterals, interior and exterior angles of polygons, and special segments and angles of circles choosing from a variety of tools.	
G.5.B Construct congruent segments, congruent angles, a segment bisector, an angle bisector, perpendicular lines, the perpendicular bisector of a line segment, and a line parallel to a given line through a point not on a line using a compass and a straightedge.	
G.5.C Use the constructions of congruent segments, congruent angles, angle bisectors, and perpendicular bisectors to make conjectures about geometric relationships.	
G.5.D Verify the Triangle Inequality theorem using constructions and apply the theorem to solve problems.	
(6) Proof and congruence. The student uses the process skills with deductive reasoning to prove and apply theorems by using a variety of methods such as coordinate, transformational, and axiomatic and formats such as two-column, paragraph, and flow chart. The student is expected to: G.6.A Verify theorems about angles formed by the intersection of lines and line segments, including vertical angles, and angles formed by parallel lines cut by a transversal and prove equidistance between the endpoints of a segment and points on its perpendicular bisector and apply these relationships to solve problems.	
G.6.B Prove two triangles are congruent by applying the Side-Angle-Side, Angle-Side-Angle, Side-Side-Side, Angle-Angle-Side, and Hypotenuse-Leg congruence conditions.	
G.6.C Apply the definition of congruence, in terms of rigid transformations, to identify congruent figures and their corresponding sides and angles.	
G.6.D Verify theorems about the relationships in triangles, including proof of the Pythagorean Theorem, the sum of interior angles, base angles of isosceles triangles, midsegments, and medians, and apply these relationships to solve problems.	
G.6.E Prove a quadrilateral is a parallelogram, rectangle, square, or rhombus using opposite sides, opposite angles, or diagonals and apply these relationships to solve problems.	
(7) Similarity, proof, and trigonometry. The student uses the process skills in applying similarity to solve problems. The student is expected to: G.7.A Apply the definition of similarity in terms of a dilation to identify similar figures and their proportional sides and the congruent corresponding angles.	
G.7.B Apply the Angle-Angle criterion to verify similar triangles and apply the proportionality of the corresponding sides to solve problems.	
(8) Similarity, proof, and trigonometry. The student uses the process skills with deductive reasoning to prove and apply theorems by using a variety of methods such as coordinate, transformational, and axiomatic and formats such as two-column, paragraph, and flow chart. The student is expected to: G.8.A Prove theorems about similar triangles, including the Triangle Proportionality theorem, and apply these theorems to solve problems.	
G.8.B Identify and apply the relationships that exist when an altitude is drawn to the hypotenuse of a right triangle, including the geometric mean, to solve problems.	

(9) Similarity, proof, and trigonometry. The student uses the process skills to understand and apply relationships in right triangles. The student is expected to: G.9.A Determine the lengths of sides and measures of angles in a right triangle by applying the trigonometric ratios sine, cosine, and tangent to solve problems.		
G.9.B Apply the relationships in special right triangles 30°-60°-90° and 45°-45°-90° and the Pythagorean theorem, including Pythagorean triples, to solve problems.		
n2y Instructional Targets	**n2y High School Grade Band Lessons and Activities**	**n2y Supporting Activities**
Building Blocks to Geometry: Similarity, Right Triangles and Trigonometry ● Identify right triangles and parts of a right triangle (right angle, legs, hypotenuse). ***Understand similarity in terms of similarity transformations.*** ● Solve real-world problems involving dilations of shapes. ***Apply trigonometry to general triangles.*** ● Apply knowledge of triangle theorems to find or compare the missing angles and/or sides of triangles.	**Unique** Geometry (Lesson 24)	**Unique** ULS Instructional Guides: Mathematics ULS Instructional Tools: Math Pack/Shapes Standards Connection
n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● Students will independently find right triangles and/or identify a leg, hypotenuse or the right angle. ● Students will independently describe the dilation of a shape and identify the scale factor used to transform the shape in real-world situations. ● Students will independently find or compare the measures of sides and/or angles of a triangle.	● Students will find right triangles and/or identify a leg, hypotenuse or the right angle, with support. ● Students will identify the effect of a dilation on a shape in real-world situations, with support. ● Students will find or compare the measures of sides and/or angles of a triangle, with support.	● Students will find right triangles and/or identify a leg, hypotenuse or the right angle using a model. ● Students will identify the effect of a dilation on the size of a shape by making a selection from a narrowed field or errorless choice(s). ● Students will find or compare the measures of sides and/or angles of a triangle by making a selection from a narrowed field or errorless choice(s).

<table>
<tr><th colspan="2">Standards for Geometry: Circles</th><th>Grades 9–12</th></tr>
<tr><th colspan="2">Texas Essential Knowledge and Skills for Mathematics</th><th>STAAR Alternate 2 Essence Statements</th></tr>
<tr><td colspan="2">Geometry</td><td rowspan="6">Circles are not addressed in the STAAR Alternate 2 Essence Statements, however, ULS provides these instructional targets for practice.</td></tr>
<tr><td colspan="2">(12) Circles. The student uses the process skills to understand geometric relationships and apply theorems and equations about circles. The student is expected to:
G.12.A Apply theorems about circles, including relationships among angles, radii, chords, tangents, and secants, to solve non-contextual problems.</td></tr>
<tr><td colspan="2">G.12.B Apply the proportional relationship between the measure of an arc length of a circle and the circumference of the circle to solve problems.</td></tr>
<tr><td colspan="2">G.12.C Apply the proportional relationship between the measure of the area of a sector of a circle and the area of the circle to solve problems.</td></tr>
<tr><td colspan="2">G.12.D Describe radian measure of an angle as the ratio of the length of an arc intercepted by a central angle and the radius of the circle.</td></tr>
<tr><td colspan="2">G.12.E Show that the equation of a circle with center at the origin and radius r is $x^2 + y^2 = r^2$ and determine the equation for the graph of a circle with radius r and center (h, k), $(x - h)^2 + (y - k)^2 = r^2$.</td></tr>
<tr><th>n2y Instructional Targets</th><th>n2y High School Grade Band Lessons and Activities</th><th>n2y Supporting Activities</th></tr>
<tr><td rowspan="2">Understand and apply theorems about circles.
● Identify parts of a circle (radius, diameter, tangent, chord, arc, sector, central angle) in real-world scenarios.
Find arc lengths and areas of sectors of circles.
● Solve problems involving measurements of circles (circumference, area, arc length or area of a sector).</td><td>Unique</td><td>Unique</td></tr>
<tr><td>Geometry (Lesson 24)</td><td>ULS Instructional Guides: Mathematics
ULS Instructional Tools: Math Pack/Shapes
Standards Connection</td></tr>
<tr><th colspan="3">n2y Differentiated Tasks</th></tr>
<tr><th>Level 3</th><th>Level 2</th><th>Level 1</th></tr>
<tr><td>● Students will independently identify parts of a circle in a real-world situation.
● Students will independently find a measurement of a circle (circumference, area, arc length and/or area of a sector) to solve a problem.</td><td>● Students will identify parts of a circle in a real-world situation, with support.
● Students will find a measurement of a circle (circumference, area, arc length or area of a sector) to solve a problem with support.</td><td>● Students will select a part of a circle from a narrowed field or errorless choice(s).
● Given a circle, students will select a measurement of a circle (circumference, area, arc length or area of a sector) using a visual model.</td></tr>
</table>

Standards for Geometry: Geometric Measurement and Dimension — Grades 9–12

Texas Essential Knowledge and Skills for Mathematics	STAAR Alternate 2 Essence Statements
Geometry	*Geometric Measurement and Dimension are not addressed in the STAAR Alternate 2 Essence Statements, however, ULS provides these instructional targets for practice.*
(10) Two-dimensional and three-dimensional figures. The student uses the process skills to recognize characteristics and dimensional changes of two- and three-dimensional figures. The student is expected to: G.10.A Identify the shapes of two-dimensional cross-sections of prisms, pyramids, cylinders, cones, and spheres and identify three-dimensional objects generated by rotations of two-dimensional shapes.	
G.10.B Determine and describe how changes in the linear dimensions of a shape affect its perimeter, area, surface area, or volume, including proportional and non-proportional dimensional change.	
(11) Two-dimensional and three-dimensional figures. The student uses the process skills in the application of formulas to determine measures of two- and three-dimensional figures. The student is expected to: G.11.A Apply the formula for the area of regular polygons to solve problems using appropriate units of measure.	
G.11.B Determine the area of composite two-dimensional figures comprised of a combination of triangles, parallelograms, trapezoids, kites, regular polygons, or sectors of circles to solve problems using appropriate units of measure.	
G.11.C Apply the formulas for the total and lateral surface area of three-dimensional figures, including prisms, pyramids, cones, cylinders, spheres, and composite figures, to solve problems using appropriate units of measure.	
G.11.D Apply the formulas for the volume of three-dimensional figures, including prisms, pyramids, cones, cylinders, spheres, and composite figures, to solve problems using appropriate units of measure.	

n2y Instructional Targets	n2y High School Grade Band Lessons and Activities	n2y Supporting Activities
Explain volume formulas and use them to solve problems. ● Solve a real-world problem involving the perimeter of two-dimensional shapes. ● Solve a real-world problem involving the area of two-dimensional shapes. ● Determine the volume of three-dimensional objects. ***Visualize relationships between two-dimensional and three-dimensional objects.*** ● Compare the volumes of three-dimensional objects when one attribute is changed.	**Unique** Geometry (Lesson 24)	**Unique** ULS Instructional Guides: Mathematics ULS Instructional Tools: Math Pack/Shapes Standards Connection **News2you** Recipe Page Standards Connection

n2y Differentiated Tasks		
Level 3	***Level 2***	***Level 1***
● Students will independently find the perimeter of a shape to solve a real-world problem. ● Students will independently find the area of a shape to solve a real-world problem. ● Students will independently find the volume of three-dimensional objects. ● Students will independently compare the volume of three-dimensional objects.	● Students will find the perimeter of a shape to solve a real-world problem, with support. ● Students will find the area of a shape to solve a real-world problem, with support. ● Students will find the volume of three-dimensional objects, with support. ● Students will compare the volume of three-dimensional objects, with support.	● Students will participate in counting units on a model of a shape to find the perimeter using an active response (e.g,. voice output device, eye gaze board). ● Students will participate in counting unit squares on a model of a shape to find the area using an active response (e.g., voice output device, eye gaze board). ● Students will count unit cubes on a model of a shape to find the volume using an active response (e.g., voice output device, eye gaze board). ● Given two three-dimensional objects and their volumes, students will select the object with the greater or lesser volume.

<table>
<tr><th colspan="3">Standards for Geometry: Modeling with Geometry — Grades 9–12</th></tr>
<tr><th colspan="2">Texas Essential Knowledge and Skills for Mathematics</th><th>STAAR Alternate 2 Essence Statements</th></tr>
<tr><td colspan="2">Modeling with Geometry is not explicitly addressed in the Texas Essential Knowledge and Skills for Mathematics.</td><td>Modeling with Geometry is not addressed in the STAAR Alternate 2 Essence Statements, however, ULS provides these instructional targets for practice.</td></tr>
<tr><th>n2y Instructional Targets</th><th>n2y High School Grade Band Lessons and Activities</th><th>n2y Supporting Activities</th></tr>
<tr><td rowspan="2">Building Blocks to Modeling with Geometry
● Identify two-dimensional shapes based on their properties and/or attributes.
Apply geometric concepts in modeling situations.
● Analyze the shapes of real-world two and/or three-dimensional objects.</td><td>Unique</td><td>Unique</td></tr>
<tr><td>Geometry (Lesson 24)</td><td>ULS Instructional Guides: Mathematics
ULS Instructional Tools: Math Pack/Shapes
Standards Connection</td></tr>
<tr><th colspan="3">n2y Differentiated Tasks</th></tr>
<tr><th>Level 3</th><th>Level 2</th><th>Level 1</th></tr>
<tr><td>● Students will independently describe the shape of two-dimensional objects.
● Students will independently describe and compare real-world objects to two and three-dimensional shapes.</td><td>● Students will identify the shape of a two-dimensional object, with support.
● Students will identify and compare real-world objects to two and three-dimensional shapes, with support.</td><td>● Students will select the shape of a two-dimensional object from a narrowed field or errorless choice(s).
● Students will select the shape of a real-world object from a narrowed field or errorless choice(s).</td></tr>
</table>

Standards for Statistics and Probability: Interpreting Categorical and Quantitative Data — Grades 9–12

Texas Essential Knowledge and Skills for Mathematics	STAAR Alternate 2 Essence Statements
Algebra I	***Algebra I***
(4) Linear functions, equations, and inequalities. The student applies the mathematical process standards to formulate statistical relationships and evaluate their reasonableness based on real-world data. The student is expected to: A.4.A Calculate, using technology, the correlation coefficient between two quantitative variables and interpret this quantity as a measure of the strength of the linear association.	**Knowledge and Skills Statement (A.4) Linear functions, equations, and inequalities.** The student applies the mathematical process standards to formulate statistical relationships and evaluate their reasonableness based on real world data. (Supporting Standard) Essence Statement: Uses linear equations to model or solve real-world problems.
A.4.B Compare and contrast association and causation in real-world problems.	

n2y Instructional Targets	n2y High School Grade Band Lessons and Activities	n2y Supporting Activities
Summarize, represent, and interpret data on a single count or measurement variable. ● Create a graph to represent data. ● Interpret data from a graph. ● Compute the mean (average) and median of a data set. ***Summarize, represent and interpret data on two categorical and quantitative variables.*** ● Design questions and make a plan to conduct a survey to gather data. ● Compare data on a graph to show the relationship between two sets of data. ***Interpret linear models.*** ● Describe a rate of change based on a line on a graph.	**Unique** Read This Chart (Lesson 21)	**Unique** ULS Instructional Guides: Mathematics **News2you** Activities: Graphing A & B Activities: Food Graph

n2y Differentiated Tasks

Level 3	*Level 2*	*Level 1*
● Students will organize data on a graph. ● Students will compare data from tables and graphs to report specific information. ● Students will calculate an average (mean) and median from data. ● Students will design a survey to ask questions and collect data to present on a graph. ● Students will compare data from two different populations on a graph. ● Students will identify and explain the rate of change of a line graph.	● Students will display data on a graph. ● Students will identify specific data from a table or graph. ● Students will identify a middle point (average) in a set of data. ● Students will ask questions to gather data for a survey. ● Students will identify specific data from a graph of two different populations. ● Students will identify the rate of change of a line graph with support.	● Students will select pictures as part of a graph-creating process. ● Students will report data that is presented in a table or graph. ● Students will communicate data information that describes an average. ● Students will ask a question and select pictures as part of a data-gathering process. ● Students will select pictures to indicate data on a graph of two different populations. ● Students will select a rate of change of a line graph with support.

<table>
<tr><th colspan="3">Statistics and Probability: Making Inferences and Justifying Conclusions — Grades 9–12</th></tr>
<tr><th colspan="2">Texas Essential Knowledge and Skills for Mathematics</th><th>STAAR Alternate 2 Essence Statements</th></tr>
<tr><td colspan="2">Geometry</td><td rowspan="6">Making Inferences and Justifying Conclusions is not addressed in the STAAR Alternate 2 Essence Statements, however, ULS provides these instructional targets for practice.</td></tr>
<tr><td colspan="2">(13) Probability. The student uses the process skills to understand probability in real-world situations and how to apply independence and dependence of events. The student is expected to:
G.13.A Develop strategies to use permutations and combinations to solve contextual problems.</td></tr>
<tr><td colspan="2">G.13.B Determine probabilities based on area to solve contextual problems.</td></tr>
<tr><td colspan="2">G.13.C Identify whether two events are independent and compute the probability of the two events occurring together with or without replacement.</td></tr>
<tr><td colspan="2">G.13.D Apply conditional probability in contextual problems.</td></tr>
<tr><td colspan="2">G.13.E Apply independence in contextual problems.</td></tr>
<tr><th>n2y Instructional Targets</th><th>n2y High School Grade Band Lessons and Activities</th><th>n2y Supporting Activities</th></tr>
<tr><td rowspan="2">Understand and evaluate random processes underlying statistical experiments.
● Determine the likelihood of an event based on a data sample.
● Evaluate reports based on data.</td><td>Unique</td><td>Unique</td></tr>
<tr><td>Read This Chart (Lesson 21)</td><td>ULS Instructional Guides: Mathematics</td></tr>
<tr><th colspan="3">n2y Differentiated Tasks</th></tr>
<tr><th>Level 3</th><th>Level 2</th><th>Level 1</th></tr>
<tr><td>● On the basis of information gathered, students will determine the probability that something is likely or unlikely to occur.
● Students will make an inference about the data in tables and graphs.</td><td>● On the basis of available information, students will determine that something is likely to happen.
● Students will identify information about a group from a table to graph.</td><td>● Students will select an activity that is likely to occur.
● With support, students will select a statement about a group based on data presented in a table or graph.</td></tr>
</table>