Southern York County School District

One Warrior at a Time

Course/Subject: Math Comprehensive   Grade Level: 1

Textbook(s) / Instructional Materials Used: Ready Pennsylvania Math Instruction, Practice Problem Solving, Assessment, i-Ready Diagnostic & Instruction

Month(s): September - October	Unit 1

Add and Subtract

Big Idea	Standard	Eligible Content	Essential Questions & Lesson Essential Question	Concepts	Vocabulary	Competencies
Mathematical relationships among numbers can be represented, compared, and communicated. Mathematical relationships can be represented as expressions, equations and inequalities in mathematical situations. Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools.	Standard K.OA.A.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem. K.OA.A.3 Decompose numbers less than or equal to 10 into pairs in more than one way, e.g., by using objects or drawings, and record each decomposition by a drawing or equation (e.g., 5 5 2 1 3 and 5 5 4 1 1).		How is mathematics used to quantify, compare, represent, and model numbers? How can mathematics support effective communication? How are relationships represented mathematically? What does it mean to estimate or analyze numerical quantities? What makes a tool and/or strategy appropriate for a given task? How can recognizing repetition or regularity assist in solving problems more efficiently? How can expressions, equations and inequalities be used to quantify, solve, model, and/or analyze mathematical situations?	Place Value Addition and Subtraction Properties of Operations	equal - equal to, same as the same quantity or amount add - to put together two or more quantities, to find the total of two or more numbers, or to find how many in all plus (+) - the math term and symbol that means add total - the result of adding two or more groups or quantities	Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <. Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10 using concrete models or drawings. Relate the strategy to a written method and explain the reasoning used.

| Patterns exhibit relationships that can be extended, described, and generalized. | K.OA.A.4 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g., by using objects or drawings, and record the answer with a drawing or equation.

K.OA.A.5 Fluently add and subtract within 5.

Standard Area Algebraic Concepts

Standard CC.2.2.1.A.1 Represent and solve problems involving addition and subtraction within 20.

CC.2.2.1.A.2 Understand and apply properties of operations and the relationship between addition and subtraction. | | Lesson 0
Routine Objectives
• Use best practices during a Ready mathematics lesson.
• Identify and explain models or strategies used to solve problems.
• Critique and compare solution strategies of others and those provided in Ready.
• Use math talk practices to efficiently share and compare strategies for solving problems.
• Apply math knowledge and modeling techniques to new, similar problems.

Mathematical Objectives
• Show and name number pairs for 9 and 10 using objects and drawings. (Reviews Grade K Lessons 10 and 13)
• Solve addition word problems within 5 using pictures or objects. (Reviews Grade K Lesson 15)
• Solve take-away subtraction word problems within 10 using pictures or Objects.

Lesson 1
Content Objectives
• Add within ten.
• Apply the counting on strategy.
• Analyze counting strategies.
Language Objectives | | subtract - take away or remove

minus (-) - the math term and symbol that mean subtract

difference - the result of subtraction

addition - sentence one number is added to another in a sentence with numbers and symbols.

commutative property of addition - changing the order of addends does not change the total.

count on - start with one addend and count to find a total.

number path - a diagram that shows numbers in | Subtract multiples of 10 in the range 10-90, using concrete models or drawings. Relate the strategy to a written method and explain the reasoning used.

Use addition and subtraction within 20 to solve word problems by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.

Add and subtract within 20. Use strategies such as counting on; making ten; decomposing a number leading to a ten; using the relationship between addition and subtraction and creating equivalent but easier or known sums.

Solve word problems that call for addition of |

| | | | • Use fingers, counters, and connecting cubes to model the counting on strategy.
• Explain how to use the counting on strategy to add two numbers.
• Listen to the ideas of others discussing a counting error and decide together how to correct the error.

Lesson 2
Content Objectives
• Apply the counting on strategy to subtract within 10.
• Model the counting on strategy using physical and visual models.
• Connect the counting on strategy to a number sentence.

Language Objectives
• Use diagrams and number paths to show the counting on strategy to subtract.
• Record answers to related addition and subtraction number sentences.
• Tell how counting on to subtract is like and how it is different from counting on to add.

Lesson 3
Content Objectives
• Use strategies, including counting on, to solve addition and subtraction word problems. | | sequential order.

tape diagram - a diagram used to represent part-whole number relationships. Also known as a bar model.

subtract - to take objects away from a group or to compare groups.

subtraction sentence - one number is subtracted from another in a sentence with symbols and numbers.

Addend - a number being added.

number bond - a diagram with a total and two addends.

compare - to decide if amounts or sizes are | three whole numbers whose sum is less than or equal to 20.

Apply properties of operations as strategies to add and subtract (commutative property of addition; associative property of addition).

Understand subtraction as an unknown-addend problem. For example, subtract 10 – 8 by finding the number that makes 10 when added to 8. |

| | | | • Complete number sentences to solve addition and subtraction word problems.

Language Objectives
• Identify counting strategies that can be used to solve addition and subtraction word problems.
• Draw jumps on a number path and circles on a tape diagram to show how to complete a number sentence.
• Tell the meaning of the unknown quantity in a word problem and use this to explain where the blank goes in the related number sentence.
• Discuss with a partner strategies used to solve a word problem.

Lesson 4
Content Objectives
• Understand the relationship between addition and subtraction.
• Write a missing addend sentence for a corresponding subtraction sentence.
• Connect addition and subtraction sentences to a number bond.
• Relate subtraction sentences and missing addend sentences to a problem situation.
Language Objectives
• Draw dots and write numbers in number bonds to represent | | greater than, less than, or equal to each other.

fewer - indicating a lesser quantity or amount.

more - indicating a greater quantity or amount. | |

			addition and subtraction sentences. • Use counters to model addition and subtraction sentences. • Listen to the ideas of others discussing how addition and subtraction are alike and how they are different and ask questions to clarify. Lesson 5 Content Objectives • Understand a comparison problem situation as subtraction and/or related addition. • Compare two amounts, determining which is more or less and identifying how many more or less. • Write and solve subtraction and addition sentences to solve comparison word problems. Language Objectives • Orally define and use the key mathematical terms compare, more, and fewer when communicating with a partner. • Complete a tape diagram to show how a comparison word problem relates to a subtraction sentence. • Draw lines to align objects and identify how many more or fewer objects are in one group.			

Month(s): October - November	**Unit 2**

Learn Facts to 10

Big Idea	Standard	Eligible Content	Essential Questions & Lesson Essential Question	Concepts	Vocabulary	Competencies
Mathematical relationships among numbers can be represented, compared, and communicated. Mathematical relationships can be represented as expressions, equations and inequalities in mathematical situations. Patterns exhibit relationships that can be extended, described, and generalized.	Standard Area Algebraic Concepts Standard CC.2.2.1.A.1 Represent and solve problems involving addition and subtraction within 20. CC.2.2.1.A.2 Understand and apply properties of operations and the relationship between addition and subtraction.		How is mathematics used to quantify, compare, represent, and model numbers? How can mathematics support effective communication? How are relationships represented mathematically? How can expressions, equations and inequalities be used to quantify, solve, model, and/or analyze mathematical situations? How can recognizing repetition or regularity assist in solving problems more efficiently? How can patterns be used to describe relationships in mathematical situations? Lesson 6 Content Objectives • Relate an image of two equal groups to doubles. • Relate an image of two equal groups with one left over as doubles plus one. • Write addition sentences for doubles and doubles plus one. • Use properties to write a doubles plus one expression	Addition and Subtraction Properties of Operations	doubles - an addition fact that has two addends that are the same, such as 4 + 4. doubles plus 1 - an addition fact that has a double as one addend and the double and one more as the other addend, such as 4 + 5. compose - to combine lesser numbers to make greater numbers. decompose - to break a number into two or more parts. Number - tells how much or how many.	Use addition and subtraction within 20 to solve word problems by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. Add and subtract within 20. Use strategies such as counting on; making ten; decomposing a number leading to a ten; using the relationship between addition and subtraction and creating equivalent but easier or known sums. Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20.

| | | | | (3 addends) as an expression with 2 addends.

Language Objectives
• Draw picture cards to create visual examples of several doubles and doubles plus one facts.
• Use visual models or counters to create addition sentences and solve a doubles or a doubles plus one problem.
• Tell how a doubles plus one expression with 3 addends and a related doubles plus one expression with 2 addends are alike.
• Justify conclusions and communicate the conclusions to others.

Lesson 7
Content Objectives
• Develop fluency in addition and subtraction for sums 6 and 7.
• Model facts for 6 and 7 in a number bond.
• Complete number sentences.
Language Objectives
• Orally define and use the key mathematical term number partners when communicating with a partner.
• Use visual models and number bonds to find missing number partners for 6 and 7.
• Record number partners for 6 or 7 in a number bond and use to complete up to four related | | number partners - two addends that make up a given total.

zero - a whole number that tells when a set has no objects in it.

number bond - a diagram with a total and two addends.

total - a number found as the result of adding.

equal sign (=) - a symbol that means "is the same as."

is the same as - indicates that quantities equal each other.

number sentence - a sentence with symbols and numbers that compares two amounts as equal, less | Apply properties of operations as strategies to add and subtract (commutative property of addition; associative property of addition).

Understand subtraction as an unknown-addend problem. For example, subtract 10 – 8 by finding the number that makes 10 when added to 8. |

| | | | addition and subtraction sentences.
• Listen to the ideas of others about related number sentences and ask questions to clarify.

Lesson 8
Content Objectives
• Demonstrate fluency in addition and subtraction for sums 8 and 9.
• Relate the operations of addition and subtraction through number bonds.
• Recognize 0 as a number partner.

Language Objectives
• Use visual models and number bonds to find missing number partners for 8 and 9.
• Record number partners for 8 or 9 in a number bond and use to complete up to four related addition and subtraction sentences.
• Tell why 0 can be a number partner for any number.

Lesson 9
Content Objectives
• Fluently add and subtract within 10.
• Apply strategies to addition and subtraction of sums within 10.
• Understand inverse operations as a tool for adding and subtracting. | | than, or greater than.

addition table - a table showing expressions for sums to 20.

addend - a number being added. | |

			Language Objectives • Use visual models, 10-frames, and number bonds to find missing number partners for 10. • Record number partners for 10 in a number bond and use to complete up to four related addition and subtraction sentences. • Listen to the ideas of others about how finding number partners for 10 is like finding number partners for numbers less than 10 and decide if they make sense. Lesson 10 Content Objectives • Understand that the equal sign is used to indicate that one quantity is the same as another. • Match equivalent expressions. • Write and identify true and false number sentences. • Rewrite a false number sentence so that it is true. Language Objectives • Orally define and use the key mathematical term equal sign (=) when communicating with a partner. • Draw diagrams to explain whether a number sentence is true or false. • Use physical models such as			

			connecting cubes to show how to make a false number sentence true. Lesson 11 Content Objectives • Fluently add and subtract within 10. • Use strategies such as counting on; using the relationship between addition and subtraction; and using a known sum or difference to find an unknown sum or difference to add and subtract. Language Objectives • Identify and use more than one strategy to complete addition or subtraction sentences in which the unknown is located in all positions. • Record addition facts to 10 in an addition table. • Compare two approaches to addition or subtraction and describe how they are the same or different.			

Month(s): November - December			Unit 3			

Add and Subtract to 20						

Big Idea	**Standard**	**Eligible Content**	**Essential Questions & Lesson Essential Question**	**Concepts**	**Vocabulary**	**Competencies**
Mathematical relationships among numbers	Standard Area Numbers and Operations		How is mathematics used to quantify, compare, represent, and model numbers?	Place Value	ones - single units or objects.	Compare two two-digit numbers based on

can be represented, compared, and communicated. Mathematical relationships can be represented as expressions, equations and inequalities in mathematical situations. Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools. Patterns exhibit relationships that can be extended, described, and generalized.	Standard CC.2.1.1.B.2 Use place-value concepts to represent amounts of tens and ones and to compare two digit numbers. CC.2.1.1.B.3 Use place-value concepts and properties of operations to add and subtract within 100. Standard Area Algebraic Concepts Standard CC.2.2.1.A.1 Represent and solve problems involving addition and subtraction within 20. CC.2.2.1.A.2 Understand and apply properties of operations and the relationship between addition and subtraction.		How can mathematics support effective communication? How are relationships represented mathematically? What does it mean to estimate or analyze numerical quantities? What makes a tool and/or strategy appropriate for a given task? How can recognizing repetition or regularity assist in solving problems more efficiently? Lesson 12 Content Objectives • Recognize that 10 ones and 1 ten represent the same quantity. • Understand that numbers between 10 and 20 are composed of 1 ten and some ones. • Model teen numbers. Language Objectives • Use connecting cubes to show that one 10-cube bar represents 10 ones or the number 10 and not the number 1. • Tell the meaning of each digit in a teen number. • Use 10-frames and number bonds to model teen numbers.		teen number - a ten and some number of ones from 1 to 9; the numbers 11–19. tens - groups of 10 ones. addend - a number being added. total - a number found as the result of adding. make a ten - a strategy that uses combinations of numbers that add to ten when finding totals greater than 10. Associative Property of Addition - when the grouping of 3 or more addends is changed, the total does not change.	meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <. Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10 using concrete models or drawings. Relate the strategy to a written method and explain the reasoning used. Subtract multiples of 10 in the range 10-90, using concrete models or drawings. Relate the strategy to a written method and explain the reasoning used.

			Lesson 13 Content Objectives • Find the partners of teen numbers. • Recognize the different ways that numbers can be decomposed and Composed. Language Objectives • Use 10-frames and number bonds to show how 10 does not always have to be one of the number partners of a teen number. • Complete number bonds and number sentences for sums greater than 10. • Compare the different approaches used by others to find sums greater than 10 and identify connections among the approaches. Lesson 14 Content Objectives • When adding 2 one-digit numbers, understand the rationale for decomposing one addend to make ten. • Use the strategy of making ten to add numbers within 20. • Use and articulate mental math strategies to add. Language Objectives • Explain how to use the strategy of making ten to add two numbers. • Draw jumps on a number path to show making a ten and finding a sum.			

			• Describe a 10-frame. Lesson 15 Content Objectives • Write addition expressions with three addends to represent word problems. • Find the total of three addends, using strategies such as making a ten and using doubles. • Use the associative and commutative properties to group addends in order to find known sums. Language Objectives • Draw jumps on number paths or use 10-frames to find the total of three addends. • Use connecting cubes to show that changing the order or the grouping of addends does not change the sum. • Explain how making a ten can be used to find the total of three numbers. Lesson 16 Content Objectives • Recognize that teen numbers can be decomposed and composed to subtract. • Use the make-a-ten strategy to subtract single-digit numbers from teen numbers. Language Objectives • Explain how to use the make a ten strategy to subtract.			

| | | | • Use 10-frames and number paths to decompose teen numbers to make a ten and find a difference.
• Justify answers and communicate the results to others. | | | |

Tens

Big Idea	Standard	Eligible Content	Essential Questions & Lesson Essential Question	Concepts	Vocabulary	Competencies
Mathematical relationships among numbers can be represented, compared, and communicated. Mathematical relationships can be represented as expressions, equations and inequalities in mathematical situations. Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate	Standard Area Numbers and Operations Standard CC.2.1.1.B.2 Use place-value concepts to represent amounts of tens and ones and to compare two digit numbers. CC.2.1.1.B.1 Extend the counting sequence to read and write numerals to represent objects. CC.2.1.1.B.3 Use place-value		How is mathematics used to quantify, compare, represent, and model numbers? How can mathematics support effective communication? How are relationships represented mathematically? What does it mean to estimate or analyze numerical quantities? What makes a tool and/or strategy appropriate for a given task? Lesson 17 Content Objectives • Understand that the base-ten system is made up of groups of tens and ones. • Organize 10 ones into a group of ten.	Numerical Sequence	Addend Addition Analog Circle Compare compose/ Cone Counting on Cube Cylinder Data decompose Equal to Fourths Fractions Greater than Half circles Half-hour Halves Hour Length Less than Making ten Ones	Count to 120, starting at any number less than 120. Read and write numerals up to 120 and represent a number of objects with a written numeral.

strategies and tools.	concepts and properties of operations to add and subtract within 100.		• Express 10 ones as 1 ten and 1 ten as 10 ones. • Identify and write two-digit numbers in terms of tens and ones. Language Objectives • Use connecting cubes to show that one 10-cube bar represents 10 ones or the number 10 and not the number 1. • Circle groups of 10 objects in a group containing a multiple of 10 objects. • Count groups of 10 objects and write the total as the number of tens. Lesson 18 Content Objectives • Count on from any number on the 120 chart. • Connect counting on to addition. • Count by 1s, 2s, and 5s within 120. Language Objectives • Read and circle numbers in a 120 chart and describe patterns. • Draw arrows or use a finger to count by 1s, 2s, or 5s from any number on a 120 chart. • Tell how to start from a given number to find 1, 2, and 5 more than that number. Lesson 19 Content Objectives		Place value Quarter-circles Quarters Rectangle Rectangular Prism Square Subtraction Sum Tens Trapezoids Triangle Ones - single units or objects. Tens - groups of ten ones. 120 chart - a chart labeled with numbers from 1 to 120 set across 10 columns and down 12 rows. row - a horizontal arrangement of items in a chart. column - a vertical arrangement of items in a chart. 10 less - 1 less ten or 10 less

| | | | | • Mentally add and subtract 10 from any number within 120.
• Recognize that adding or subtracting a ten results in a change in the tens digit alone.

Language Objectives
• Use connecting cubes, digit cards, or a 120 chart to show how only the tens digit changes when 10 is added to or subtracted from a number.
• Tell how finding 10 more or 10 less is like and how it is different from finding 1 more or 1 less.
• Write numbers that are 10 more and 10 less than a given number.

Lesson 20
Content Objectives
• Count tens as 1 ten, 2 tens, 3 tens, tens or as 10, 20, 30.
• Add multiples of 10 to multiples of 10 and subtract multiples of 10 from multiples of 10.
• Relate adding tens to adding ones.

Language Objectives
• Use connecting cubes and quick-draw diagrams to model and represent tens in word problems.
• Complete number sentences based on models to solve word problems involving adding and subtracting tens. | | ones than a given number.

10 more - 1 more ten or 10 more ones than a given number. | |

| | | | • Draw arrows or use a finger on a 120 chart to find the unknown in a number sentence.
• Restate what information a word problem is asking for and orally describe how to solve. | | | |

Month(s): February - March | **Unit 5**

Tens and Ones

Big Idea	Standard	Eligible Content	Essential Questions & Lesson Essential Question	Concepts	Vocabulary	Competencies
Mathematical relationships among numbers can be represented, compared, and communicated. Mathematical relationships can be represented as expressions, equations and inequalities in mathematical situations. Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate	Standard Area Numbers and Operations Standard CC.2.1.1.B.2 Use place-value concepts to represent amounts of tens and ones and to compare two digit numbers. CC.2.1.1.B.3 Use place-value concepts and properties of operations to add and subtract within 100.		How is mathematics used to quantify, compare, represent, and model numbers? How can mathematics support effective communication? How are relationships represented mathematically? What does it mean to estimate or analyze numerical quantities? What makes a tool and/or strategy appropriate for a given task? How can recognizing repetition or regularity assist in solving problems more efficiently? Lesson 21 Content Objectives	Place Value	digit - any of the ten symbols used in the base-ten numeration system 0, 1, 2, 3, 4, 5, 6, 7, 8, 9. place value - the value of the place of a digit, such as tens and ones. ones - single units or objects. tens - groups of ten ones. < symbol - means is less than.	Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <. Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10 using concrete models or drawings. Relate the strategy to a written method

strategies and tools. Patterns exhibit relationships that can be extended, described, and generalized.			• Represent two-digit numbers as tens and ones. • Decompose a two-digit number as some tens and some ones in multiple ways. • Model a two-digit number in multiple ways. Language Objectives • Use connecting cubes and draw diagrams to model a two-digit number as a group of ones and as a group of tens plus ones. • Write given two-digit numbers as different tens and ones. • Justify conclusions and communicate the conclusions to others. Lesson 22 Content Objectives • Understand the meaning of the symbols, <and>. • Compare the value of 2 two-digit numbers using tens and ones. • Write the symbols <, >, and = to compare 2 two-digit numbers. Language Objectives • Orally describe and write the symbols used to represent is greater than, is less than, and is the same as. • Use quick-draw diagrams and base-ten blocks to model two-digit numbers in comparison problems.		> symbol - means is greater than. greater than - number with a greater value or quantity. less than - number with a smaller value or quantity. more than - more in quantity or amount. compare to - decide if amounts or sizes are greater than, less than, or equal to each other. equal sign (=) - a symbol that means is the same as. Fewer - indicating a lesser quantity or amount. More - indicating a	and explain the reasoning used. Subtract multiples of 10 in the range 10-90, using concrete models or drawings. Relate the strategy to a written method and explain the reasoning used.

| | | | | • Rewrite given pairs of two-digit numbers as tens and ones and determine which number is greater than, less than, or equal to the other.

Lesson 23
Content Objectives
• Add multiples of ten to any two-digit number.
• Apply strategies to addition of two-digit numbers.
• Model addition involving tens.

Language Objectives
• Use base-ten blocks, quick-draw diagrams, number bonds, or place value charts to decompose two-digit numbers into tens and ones.
• Tell how the different approaches used by others to add tens to any number are alike and how they are different.

Lesson 24
Content Objectives
• Model addition of two-digit numbers.
• Add two-digit numbers without Regrouping.

Language Objectives
• Use base-ten blocks, quick-draw diagrams, number bonds, or place value charts to decompose two-digit numbers into tens and ones. | | greater quantity or amount.

make a ten - a strategy that uses combinations of numbers that add to ten when finding totals greater than 10. | |

			• Record the sum of the tens and the sum of the ones and then add these sums together to find the total when adding two-digit numbers. • Talk with a partner about strategies used to solve a problem. Lesson 25 Content Objectives • Add two-digit numbers with regrouping. • Compose a ten when adding ones. • Relate two-digit addition with regrouping to two-digit addition without regrouping and to the make-a-ten strategy. Language Objectives • Draw quick-draw diagrams to show how to add two-digit numbers with regrouping. • Rewrite two 2-digit numbers as tens and ones to add with regrouping. • Tell how adding two-digit numbers with regrouping is like and how it is different from adding two-digit numbers without regrouping. • Listen to the ideas of others and compare their strategies.			

Month(s): March - April | **Unit 6**

Shapes

Big Idea	Standard	Eligible Content	Essential Questions & Lesson Essential Question	Concepts	Vocabulary	Competencies
Patterns exhibit relationships that can be extended, described, and generalized. Geometric relationships can be described, analyzed, and classified based on spatial reasoning and/or visualization.	Standard Area Geometry Standard CC.2.3.1.A.1 Compose and distinguish between two- and three-dimensional shapes based on their attributes. CC.2.3.1.A.2 Use the understanding of fractions to partition shapes into halves and quarters.		How can recognizing repetition or regularity assist in solving problems more efficiently? How are spatial relationships, including shape and dimension, used to draw, construct, model, and represent real situations or solve problems? How can the application of the attributes of geometric shapes support mathematical reasoning and problem solving? How can geometric properties and theorems be used to describe, model, and analyze situations? How can patterns be used to describe relationships in mathematical situations? Lesson 26 Content Objectives • Identify the defining attributes of a shape. • Distinguish between defining and non-defining attributes. • Classify a shape based on its defining attributes. Language Objectives • Draw a shape based on given attributes or its name.	Two and Three Dimensional Fractions	corner - a point where two or more lines meet. hexagon - a shape with 6 sides and 6 corners. rectangle - a shape with 4 sides and 4 square corners that has opposite sides the same length. rhombus - a shape with 4 sides and 4 corners that has all sides the same length. side - a line segment that is part of a shape. square - a shape with 4 sides and 4 square corners that has all	Compose two and three-dimensional shapes and distinguish between attributes. Build and draw shapes to possess attributes. Partition circles and rectangles into two and four equal shares. Understand that decomposing into more equal shares creates

| | | | | • Use an index card as a tool to determine if a shape has a square corner and to compare the shape's side lengths.
• Orally describe what is the same and what is different about a given group of shapes.

Lesson 6A
Content Objectives
• Distinguish between two-dimensional and three-dimensional shapes.
• Identify attributes such as edges, faces, and vertices on a three-dimensional geometric shape.

Language Objectives
• Describe the difference between two-dimensional and three-dimensional shapes.
• Name three-dimensional geometric shapes.
• Name the three-dimensional geometric shapes that are represented by some real-life objects.

Lesson 27
Content Objectives
• Compose two-dimensional shapes to create composite shapes and then compose new shapes from the composite shape.

Language Objectives
• Use pattern blocks to create composite shapes. | | sides the same length.

trapezoid - a quadrilateral with at least one pair of parallel sides.

triangle - a shape with 3 sides and 3 corners.

two-dimensional - flat, or having measurement in two directions, like length and width. For example, a rectangle is two-dimensional.

three-dimensional - solid, or having length, width, and height. For example, cubes are three-dimensional.

face - a flat surface of a solid shape. | |

			• Identify and describe everyday situations or objects involving composite shapes. • Draw composite shapes using given smaller shapes. Lesson 28 Content Objectives • Divide circles and rectangles into two and four equal parts. • Identify the number of equal parts in a divided shape. • Name the parts as halves, fourths, and quarters. • Understand that if a whole is divided into more parts, the parts get smaller. Language Objectives • Fold or draw lines on paper shapes to show either two or four equal parts. • Recognize when a folded or divided shape is NOT divided into equal parts and tell why. • Use the key vocabulary terms equal parts, halves, fourths, and quarters in discussions with a partner.		Vertex - the point where two sides of a two-dimensional shape or two edges of a three-dimensional shape meet. edge - the part of a solid shape where two faces meet. cube - a solid shape like a box, with 6 square surfaces (faces) and all edges of equal length. rectangular prism - a solid shape like a box, with six rectangular surfaces (faces). pyramid - a solid shape whose base is a polygon and whose other faces are triangles.	

| | | | | | cylinder - a solid shape like a can.

sphere - a solid shape like a ball.

circle - a figure with no sides and no corners.

compose - to combine two or more shapes to create a new shape.

composite shape - a figure that is made up of two or more shapes.

decompose - to break apart a shape into smaller shapes.

half-circle - one of two equal parts of a circle.

quarter-circle - one of four | |

					equal parts of a circle.	
					equal parts - parts that cover an equal amount of space.	
					fourths, fourth - four equal parts; one of four parts of a whole.	
					halves, half - two equal parts; one of two equal parts of a whole.	
					quarters, quarter - four equal parts; one of four parts of a whole.	
					unequal parts - parts of a whole that are not the same size.	
					whole - all of an object, a group of objects, shape, or quantity.	

Month(s): April - May	**Unit 7**

How Many? How Much? How Long?

Big Idea	Standard	Eligible Content	Essential Questions & Lesson Essential Question	Concepts	Vocabulary	Competencies
Numerical quantities, calculations, and measurements can be estimated or analyzed by using appropriate strategies and tools. Mathematical relations and functions can be modeled through multiple representations and analyzed to raise and answer questions. Data can be modeled and used to make inferences.	Standard Area Measurement, Data, and Probability Standard CC.2.4.1.A.4 Represent and interpret data using tables/ charts. CC.2.4.1.A.1 Order lengths and measure them both indirectly and by repeating length units. CC.2.4.1.A.2 Tell and write time to the nearest half hour using both analog and digital clocks.		What does it mean to estimate or analyze numerical quantities? When is it is appropriate to estimate versus calculate? What makes a tool and/or strategy appropriate for a given task? Why does "what" we measure influence "how" we measure? In what ways are the mathematical attributes of objects or processes measured, calculated and/or interpreted? How precise do measurements and calculations need to be? How can data be organized and represented to provide insight into the relationship between quantities? How does the type of data influence the choice of display? How can probability and data analysis be used to make predictions?	Measurement Time Represent and Interpret Data	data - numerical information about a set of objects, usually gathered through observation, surveys, or measurement. picture graph - a data display in which pictures are used to represent the number of data in each category. sort - to group or organize objects by shared attributes. tally chart - a data display in which tally marks are used to represent the number of data in each category.	Order three objects by length; compare the lengths of two objects indirectly by using a third object. Use standard and non-standard units of measure to express the length of an object a whole number of length units. Understand that the length measurement of an object is the number of same-size length units. Understand that the length measurement of an object is the number of same-size length units. Tell and write time in hours and half hours using analog and digital clocks.

| | | | | Lesson 29 Content Objectives • Define meaningful categories for a given set of objects and sort the objects according to the categories. • Count to find the number of objects in each category. • Represent categorical data using tally charts, charts with numbers, and picture graphs. Language Objectives • Identify and describe the sorting rule or categories used when given objects are sorted into different groups. • Interpret data to complete tally charts, charts with numbers, and picture graphs. • Recognize and list more than one way to sort a group of objects. Lesson 30 Content Objectives • Answer questions about data in charts and graphs. • Compare quantities represented in charts and graphs. Language Objectives • Read data in a tally chart or picture graph and tell what it represents. • Record answers to comparison questions (more and fewer) about data in a tally chart or picture graph. | | tally marks - marks used to show pieces of data being counted. length - the distance from one point to another. longer - describes the greater length of two objects being compared. longest - greatest in distance. shorter - describes the lesser length or height of two objects being compared. shortest - least in distance or height. taller - describes the greater height of two objects being compared. | Organize, represent, and interpret data with up to three categories. Ask and answer questions about the data. |

| | | | | • Listen to the ideas of others about how to make sense of the data in tally charts or picture graphs and compare their Strategies.

Lesson 31
Content Objectives
• Order three objects by length.

Language Objectives
• Order three classroom objects by length (shortest to longest or longest to shortest).
• Orally explain why one end of all the objects being ordered by length must be aligned.
• Draw a line that is shorter or longer than two given objects.

Lesson 32
Content Objectives
• Recognize that sometimes it is not possible to compare length directly.
• Compare two objects by comparing their lengths to a third, reference, object.
• Use logical reasoning to indirectly compare the lengths of objects.

Language Objectives
• Tell which object is shorter or longer than a given object.
• Use a paper strip to find classroom objects that are longer, shorter, and the same size as the paper strip.
• Describe why an item that is shorter than a given object | | tallest - describes the greatest height when ordering three or more objects by height.

compare - to decide if amounts or sizes are greater than, less than, or equal to each other.

Measure - the process of finding a number that shows the size or quantity.

unit - that which is used to measure the height or length of an object.

analog clock - a clock that uses hour and minute hand positions to show time.

digital clock - a clock that uses the number of | |

| | | | must also be shorter than a second item that is longer than the given object.

Lesson 33
Content Objectives
• Measure a length using non-standard units of measure.
• Understand that the number of iterated units from end to end is a measure.
• Iterate units with no gaps or overlaps.
• Understand that unit implies uniformity in length.

Language Objectives
• Lay same-sized objects end-to-end without gaps or overlaps to measure the length of a given object.
• Draw an object, measure it with two different units, and record the number of units used.
• Listen to the ideas of others when measuring an object using two different sized units, and discuss whether more or fewer of the larger unit will be used to measure the object.

Lesson 34
Content Objectives
• Tell time to the hour and half hour, using analog and digital clocks.
• Write the time to the hour and half hour.
• Understand that 30 minutes is the same as a half hour. | | hours and minutes to show time.

half hour - 30 minutes, or a unit of time that is half as long as one hour.

half past - a way of referring to the time that is one half hour after a given hour (e.g., half past 3 is the same as 3:30).

hour - a unit of time equal to 60 minutes.

hour hand - the shorter indicator (or hand) on an analog clock, which shows the hours.

minute - a unit of time equal to 60 seconds.

minute hand - the longer indicator (or | |

			Language Objectives • Draw the hour hand on an analog clock to show a given time to the hour. • Tell time to the half hour more than one way using words and numbers. • Show the same time on an analog clock (draw) and a digital clock (write).		hand) on an analog clock, which shows the minutes. o'clock - literally means of the clock; used to tell that the current time is a particular hour.	