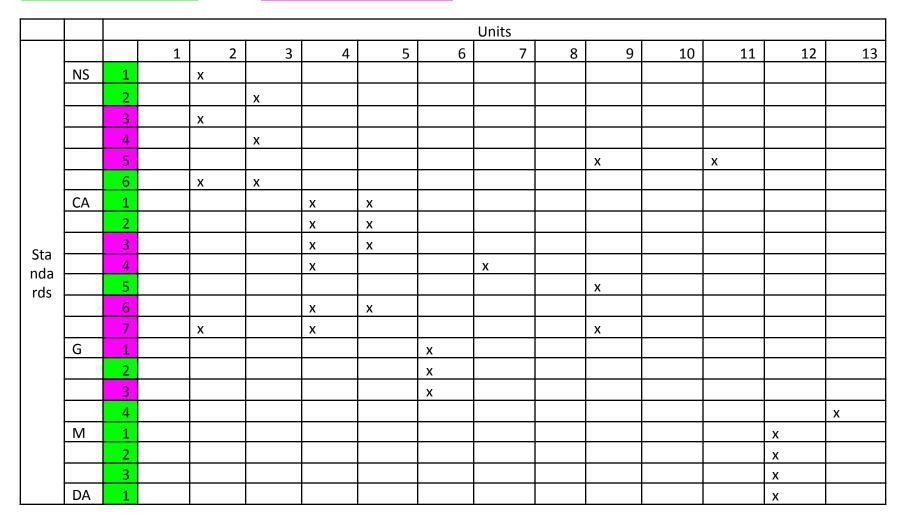# Grade 1 Mathematics

Units of Study * all instructional days include 1 day to assess REVEAL Units of Study	
Unit 1	Unit Math is…. August 15- August 26
Unit 2	Number Patterns (11 days plus 1 assessment date) August 29--September 14th
Unit 3	Place Value (14 days plus 1 assessment date) September 15th- October 5th
Unit 4	Addition within 20: Fact and Strategies (17days plus 1 assessment date) October 6th-November 2nd
Unit 5	Subtraction within 20: Facts and Strategies) (15 days plus 1 assessment date) November 3rd--December 2
Unit 6	Shapes and Solids (9 days plus 1 assessment) December 5-December 16th
Unit 7	Meaning of Addition (10 days plus 1 assessment) January 3rd- January 18th
Unit 8	Meanings of Subtraction (12days plus 1 assessment date) January 19th-February 6th
Unit 9	Addition within 100 (14days plus 1 assessment date) February 7th-February 28th
Unit 10	Compare Using Addition and Subtraction (8 days plus 1 assessment date) March1st-March 13th
Unit 11	Subtraction within 100 (10 days plus 1 assessment date) March 14th- April 4th
Unit 12	Measurement and Data (21 days plus 1 assessment date) April 5th-May 3rd
Unit 13	Equal Shares (10 days plus 1 assessment date) May 4th-May 17th

Standards			Units												
			1	2	3	4	5	6	7	8	9	10	11	12	13
NS	1			x											
	2				x										
	3			x											
	4				x										
	5										x		x		
	6			x	x										
CA	1					x	x								
	2					x	x								
	3					x	x								
	4					x			x						
	5										x				
	6					x	x								
	7			x		x					x				
G	1							x							
	2							x							
	3							x							
	4														x
M	1													x	
	2													x	
	3													x	
DA	1													x	

Unit 1- Math is... August 15th-26th

General Description of the Unit	
The focus of this unit is threefold: ➢ to build students' agency as doers of mathematics ➢ to reintroduce to the habits of mind that are integral to doing mathematics ➢ to build understanding of the norms of interaction that allow for a productive math learning environment where students can develop, refine, and enhance the habits of mind that are integral to doing math.	
	Supporting Standards **K.NS.1** count to at least 100 by ones and tens and count on by one from any number **K.CA.2** Solve real-world problems that involve addition and subtraction within 10 **K.G.2** compares two and three dimensional shapes in different sizes and orientations, using informal language to describe their similarities, differences, parts. **K.CA.3** Use objects, drawings, etc., to decompose numbers less than or equal to 10 into pairs in more than one way, and record each decomposition with a drawing or an equation (e.g., 5 = 2 + 3 and 5 = 4 + 1). [In Kindergarten, students should see equations and be encouraged to trace them, however, writing equations is not required **K.NS.5** Count up to 20 objects arranged in a line, a rectangular array, or a circle. Count up to 10 objects in a scattered configuration. Count out the number of objects, given a number from one to 20.
Proficiency Scales	**Tiered Assessments**

Enduring Understandings ● Students understand that we each have strengths and weaknesses in math. ● Students understand that a problem is a question to answer and that math can often help to answer the question. ● Students understand that mathematics can be used to represent a real-world problem. ● Students understand that sharing their thinking about the mathematics they are using to solve problems is an important part of doing math. ● Students recognized the behaviors that promote a positive math learning environment.	**Essential Questions** ● *What does it mean to do math?* ● *What do you see/notice?* ● *What do you wonder?* ● *What is the largest number you can make using 2 and 5? How do you know?*

Key Concepts	**Related Concepts**	**Math Terms**
● I can recognize that we all have math superpowers. ● I can describe my strengths in math. ● I can explain what a problem is. ● I can explain what question to answer to solve a problem. ● I can describe and extend a pattern. ● I can use patterns to solve problems. ● I can work well on my own and in a group.		● problem ● equation ● tool ● attribute ● vertex/vertices ● pattern **Academic Terms** ● skill ● superpowers ● explain ● model ● listen ● describe ● norms

● I can describe behaviors for a productive learning environment. ● I can represent real world situations using mathematics. ● I can use tools to solve a problem. ● I can explain my thinking. ● I can listen to the thoughts of my classmates.		● promise

Mathematical Processes
- *Make sense of problems and persevere in solving them*
- *model viable arguments and critique the reasoning of others*
- *Model with mathematics*
- *use appropriate tools strategically*
- *construct arguments and critique the reasoning of others*
- *attend to precision*
- *look for and make use of structure*
- *look for and express regularity in repeated reasoning*
- *use appropriate tools strategically*

SEL
- Self-awareness L1
- Self-Management L1
- Social Awareness L6
- Relationship Skills L6
- Responsible decision-making L1 & L6

Resources

		Materials
		● Blank Paper & Crayons or Colored Pencils ● Counters ● Colored tiles in 2 colors-10 each for each student

Unit 2- Number Patterns August 29--September 14th

General Description of the Unit
In this unit, students explore patterns in numbers to 120. Students will draw on their understanding of counting numbers to 100 and extend this understanding to 120. They will notice that numbers greater than 100 follow the same pattern as numbers less than 100.

Priority Standards	Supporting Standards
● 1.NS.1: Count to at least 120 by ones, fives, and tens from any given number. In this range, read and write numerals and represent a number of objects with a written numeral.	● 1.CA.7: Create, extend, and give an appropriate rule for number patterns using addition within 100. ● 1.NS.6: Show equivalent forms of whole numbers as groups of tens and ones, and understand that the individual digits of a two-digit number represent amounts of tens and ones. ● 1.NS.3: Match the ordinal numbers first, second, third, etc., with an ordered set up to 10 items.

Proficiency Scales	Tiered Assessments
1.NS.1	

Enduring Understandings	Essential Questions
● Students develop understanding of counting patterns in numbers to 100. ● Students building understanding of counting patterns in numbers to 120. ● Students develop understanding that counting numbers follow a predictable pattern. ● Students extend their understanding of number patterns to read and write numbers to 120.	● *What pattern do you see when you add/subtract 10 to any number?* ● *How do you mentally find a number 10 more or 10 less without having to count?* ● *How are the numbers 27 and 72 alike? How are they different?* ● *What is the largest number you can make using 2 and 5? How do you know?*

● Students develop their understanding of how to represent a group of up to 120 objects with a written numeral.	● *How many different ways can you make the number 63 using tens and ones?* ● *Can you think of an example where 81 would be a big number/amount? Can you think of an example where 81 would be a small number/amount?*

Key Concepts	Related Concepts	Math Terms
● I can identify patterns with numbers to 100. ● I can describe patterns when counting to 100. ● I can identify patterns when counting by 1's to 120. ● I can describe how to identify patterns when counting by 1's to 120. ● I can identify patterns on a number line when counting to 120. ● I can explain how to identify patterns on a number line when counting to 120. ● I can read numbers up to 120. ● I can write numbers to 120. ● I can represent a number of objects with a written numeral. ● I can explain how to represent a number of objects with a written numeral.		count ones pattern tens column number chart row number line how many **Academic Terms** describe order always discuss explain locate begin organize

Mathematical Processes
- *Look for and express regularity in repeated reasoning.*
- *Look for and make use of structure*
- *Model with mathematics.*
- *Use appropriate tools strategically.*
- *Look for and make use of structure.*
- *Look for and express regularity in repeated reasoning.*
- *Make sense of problems and persevere in solving them.*

SEL
- Self-Management - Self Discipline
- Responsible Decision-Making - Identify Problems
- Self-Awareness - Recognize strengths
- Relationship Skills - Communication
- Social Awareness - Respect Others

Resources		
	Digital IDOE Examples/Tasks 1.NS.1 IDOE Examples/Tasks 1.NS.6 iReady/Tens and Ones 1.NS.1 iReady/Patterns on a Hundreds Chart 1.NS.1	**Materials** ● Number Cards 1-120 ● Counters ● string or yarn ● paper clips or tape ● number cubes (prepared) ● Blank number lines ● counting objects

Unit 3 - Place Value

General Description of the Unit

In this unit, students are introduced to the idea of place value. Students will understand that 10 can be thought of as 1 group of ten ones that combined is called a "ten". Students learn how to make teen numbers; composed of that same number of ones or a ten with ones. Students will also explore different ways to represent a number using different but equivalent groupings of tens and ones.

Priority Standards	Supporting Standards

● 1.NS.2 Understand that 10 can be thought of as a group of ten ones - called a "ten." Understand that the numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. Understand that the numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones).	● 1.NS.4 Use place value understanding to compare two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.
	 ● 1.NS.6 Show equivalent forms of whole numbers as groups of tens and ones, and understand that the individual digits of a two-digit number represent amounts of tens and ones.
	  ○ 10 can be thought of as a bundle of ten ones - called a "ten."
	  ○ the numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones.

Proficiency Scales 1.NS.2	**Tiered Assessments**
Enduring Understandings ● Students develop understanding of the structure of 2-digit numbers.	**Essential Questions** ● How can I use place value to represent and compare numbers? ● *What do you already know about 2-digit numbers? How can you identify a 2-digit number?*

● Students develop conceptual understanding of 2-digit numbers by recognizing that ten ones can be grouped as one ten. ● Students develop conceptual understanding of 2-digit numbers being made up of tens and ones. ● Students develop conceptual understanding of 2-digit numbers with different representations. ● Students develop conceptual understanding of 2-digit numbers by decomposing them into different but equivalent groups of tens and ones. ● Students develop conceptual understanding of 2-digit numbers by using place value to compare them. ● Students develop conceptual understanding of 2-digit numbers by locating them on a number line and using this visual to compare the numbers. ● Students develop conceptual understanding of how symbols are used in mathematics to express ideas by using the symbols >(greater than), <(less than), and =(equal to) to compare two 2-digit numbers.	● *How can you compare two 2-digit numbers?* ● *What do you think you will be doing in this unit?*

Key Concepts	Related Concepts	Math Terms
● I can make numbers 11 to 19 using a ten and some ones. ● I can explain that teen numbers are made of one ten and some ones. ● I can show and count tens. ● I can explain that 10 ones can be grouped as 1 ten. ● I can show tens and ones.	● **N/A**	● **group of ten** ● **ones** ● **teen number** ● **ten-frame** ● **ones** ● **tens** ● **place value** ● **place-value chart** ● **compare equal to**

- I can explain how to show tens and ones. - I can show 2-digit numbers with ten and ones. - I can explain how to show 2-digit numbers with tens and ones. - I can show a number in different ways. - I can explain more than one way to show the same number. - I can tell which of two numbers is greater. - I can explain how to tell which of the two numbers is greater. - I can use a number line to compare numbers. - I can explain how to use a number line to compare numbers. - I can use these symbols to compare numbers: <, >, and =. - I can explain how to use symbols to compare numbers.		**greater than (>)** **less than (<)** **compare** **equal to (=)** **number line** **Academic Terms** **organize** **pattern** **discuss** **model** **begin** **explain** **observe** **locate** **relationship** **participate** **symbol**

Mathematical Processes
- Look for and make use of structure.
- Use appropriate tools strategically.
- Model with mathematics.
- Attend to precision.
- Reason abstractly and quantitatively.

SEL
- Self-Awareness-Identify Emotions; Recognize Strengths; Develop Perspective
- Self-Management - Goal Setting; Manage Stress
- Relationship Skills-Social Engagement; Teamwork
- Responsible Decision-Making - Reflect

Resources		
Textbook	**Digital**	**Materials**
		connecting cubes **counters** **Double Ten Frames** **Number cards 1-9 & 11-19** **Ten frames** **building blocks** **connecting cubes** **Place-Value chart** **number cards 0-120** **base-ten blocks** **number chart 1-100** **blank number lines 2** **index cards**

Unit 4- Addition within 20: Facts and Strategies

General Description of the Unit	
In this unit, students extend their understanding of place value and number sense concepts to include: ➢ Addition fluency ➢ Unknown addends ➢ The equal sign	
Priority Standards ● **1.CA.1** Demonstrate fluency with addition facts and the corresponding subtraction facts within 20. Use strategies such as counting on; making ten (e.g. 8+6=8+2+4=10+4=14); decomposing a number leading to a ten (e.g. 13-4=13-3-1=10-1=9); using the relationship between addition and subtraction (e.g. knowing that 8+4=12, one knows 12-8=4); and creating equivalent but easier or known sums (e.g. adding 6+7 by creating the known equivalent 6+6+1=12+1=13). Understand the role of 0 in addition and subtraction.	**Supporting Standards** ● **1.CA.7** Create, expand, and give an appropriate rule for number patterns using addition within 100. ● **1.CA.3** Create a real-world problem to represent a given equation involving addition and subtraction within 20. ● **1.CA.6** Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false (e.g. Which of the following equations are true and which are false? 6=6, 7=8-1, 5+2=2+5, 4+1=5+2). ● **1.CA.2** Solve real-world problems involving addition and subtraction within 20 in situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all parts of the addition or subtraction problem (e.g. by using objects, drawings, and equations with a symbol for the unknown number to represent the problem).
Proficiency Scales	**Tiered Assessments**

1.CA.1	
Enduring Understandings ● Students understand that addition is a more efficient way of determining a total than by counting. ● Students build their understanding of addition as they use number lines to add. ● Students understand how using doubles can help them to add within 20. ● Students build fluency with addition by using known facts to 20. ● Students build skill in addition within twenty by using ten-frames to solve addition problems. ● Students build on their understanding of addition by choosing a strategy. ● Students build their understanding of how to use the commutative property of addition to add numbers in any order. ● Students apply their understanding of various addition strategies to add three numbers. ● Students build on their own understanding of addition to find unknown values in addition equations. ● Students build on their understanding of addition as they begin to analyze if equations are true. ● Students build on their understanding of addition by determining if an addition equation is true.	**Essential Questions** ● What strategies can I use to add? ● *What do you already know about adding?* ● *What do you think it means to use strategies to add?* ● *What do you think you will be doing in this unit?*

Key Concepts	**Related Concepts**	**Math Terms** ● add ● addend

• I can understand that addition is a more efficient way of determining a total. • I can explain why addition is a more efficient way of determining a total than by counting. • I can count on to add within 20. • I can use a number line to add. • I can use doubles to add numbers within 20. • I can demonstrate how to use doubles to add when the addends are the same. • I can use doubles to find out facts I do not know. • I can explain how doubles can help me solve near doubles problems. • I can use ten frames to add. • I can explain how my ten frames match a problem. • I can choose a strategy to add. • I can explain which strategy I used to add. • I can add numbers in any order. • I can explain why numbers can be added in any order. • I can add three numbers.	• I can create a real-world problem involving addition within 20. (1.CA.3) • I can create a real-world problem involving subtraction within 20. (1.CA.3) • I can add three whole numbers whose sum is within 20 to solve real-world addition problems. (1.CA.4) • I can use objects, drawings, and equations to add three whole numbers whose sum is within 20 to solve real-world problems. (1.CA.4) • I can understand what the equal sign means. (1.CA.6) • I can determine if addition problems are true or false. (1.CA.6) • I can determine if subtraction problems are true or false. (1.CA.6)	• sum • doubles • number bond • ten-frame • unknown • equal sign • equation **Academic Terms** • combined • explain • strategies • useful • compare • explore • similar • almost • build • make • related • represent • strategy • decide • important • information • matter • order • belong • position • represent

		● false
● I can use strategies to decide how to add three numbers. ● I can find the unknown number in addition equation. ● I can explain how three numbers in an addition equation are related. ● I can decide whether two amounts are equal. ● I can explain the meaning of the equal sign.I can determine whether an addition equation is true or false. ● I can explain that in a true equation, the values on each side of the equal sign must be equal.		● true

Mathematical Processes
- Model with mathematics.
- Use appropriate tools strategically.
- Reason abstractly and quantitatively.
- Look for and express regularity in repeated reasoning.
- Look for and make use of structure.
- Construct viable arguments and critique the reasoning of others.
- Make sense of problems and persevere in solving them.

SEL
- Self-Awareness - Self Confidence; Respect Others; Identify Emotions
- Relationship Skills - Communication; Social Engagement

- Self-Management - Self-Motivation; Manage Stress; Control Impulses
- Responsible Decision-Making - Analyze Situations
- Social Awareness - Empathy

Resources		
Textbook	**Digital**	**Materials**
		- counters - number cubes - blank number cubes - connecting cubes - index cards - number cards 0-10 - Number bond 1 - balance scales - Number Line 0-20 - paper bags - Ten-Frames - Number cards 11-19

Unit 5- Subtraction within 20: Facts and Strategies

General Description of the Unit
In this unit, students use various tools and strategies to find differences within 20. Strategies that are explored include: ➢ Count back and count on ➢ Fact families ➢ Equations ➢ Make a 10

Priority Standards	Supporting Standards
● **1.CA.1** Demonstrate fluency with addition facts and the corresponding subtraction facts within 20. Use strategies such as counting on; making ten (e.g. 8+6=8+2+4=10+4=14); decomposing a number leading to a ten (e.g. 13-4=13-3-1=10-1=9); using the relationship between addition and subtraction (e.g. knowing that 8+4=12, one knows 12-8=4); and creating equivalent but easier or known sums (e.g. adding 6+7 by creating the known equivalent 6+6+1=12+1=13). Understand the role of 0 in addition and subtraction.	● **1.CA.3** Create a real-world problem to represent a given equation involving addition and subtraction within 20. ● **1.CA.6** Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false (e.g. Which of the following equations are true and which are false? 6=6, 7=8-1, 5+2=2+5, 4+1=5+2). ● **1.CA.2** Solve real-world problems involving addition and subtraction within 20 in situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all parts of the addition or subtraction problem (e.g. by using objects, drawings, and equations with a symbol for the unknown number to represent the problem).

Proficiency Scales **1.CA.2**	Tiered Assessments
Enduring Understandings ● Students build on their understanding of subtraction and how it can be used in place of counting to find a difference. ● Students build on their understanding of subtraction and number sense by using a number line to find a difference. ● Students develop their ability to find differences by using a number line to count on to subtract. ● Students build on their understanding of subtraction and number sense by breaking apart numbers to find a difference. ● Students develop their ability to find differences by using doubles and near doubles to subtract. ● Students build on their understanding of addition and subtraction by using the same tool to see how either an addition or subtraction equation can be used to solve the same problem. ● Students build on their understanding of how addition and subtraction are related by exploring how three given numbers are related. ● Students build their understanding of the relationship between addition and subtraction by finding unknown numbers in subtraction equations. ● Students develop their understanding of equations by deciding whether both sides of an equation are the same, or equal.	**Essential Questions** ● What strategies can I use to subtract? ● *What do we already know about subtraction?* ● *How do you think subtraction is like addition? How do you think it is different?*

Note: "Proficiency Scales" and "Tiered Assessments" and "Enduring Understandings" and "Essential Questions" are bold/underlined headings.

Key Concepts ● I can relate counting to subtraction. ● I can explain that subtraction is a more efficient way of determining a difference. ● I can use a number line to count back to subtract. ● I can describe how to use a number line to count back to subtract. ● I can use a number line to count on to subtract. ● I can describe how to use a number line to count on to subtract. ● I can make a 10 to subtract. ● I can explain how to make a 10 to subtract. ● I can use near doubles and doubles to subtract. ● I can explain near doubles and doubles to subtract. ● I can use addition to subtract. ● I can explain how to use addition to subtract. ● I can use a fact family to subtract.	**Related Concepts** ● I can create a real-world problem involving addition within 20. (1.CA.3) ● I can create a real-world problem involving subtraction within 20. (1.CA.3) ● I can understand what the equal sign means. (1.CA.6) ● I can determine if addition problems are true or false. (1.CA.6) ● I can determine if subtraction problems are true or false. (1.CA.6)	**Math Terms** ● difference ● subtract ● total ● number line ● doubles ● unknown addend ● fact family ● fact triangle ● related facts ● equal sign (=) ● equation **Academic Terms** ● appears ● represent ● describe ● different ● share ● observe ● remove ● make sense ● explain ● idea ● relate ● information ● present ● problem

• I can explain how to build a fact family. • I can find an unknown number in a subtraction equation. • I can explain how to find an unknown number in a subtraction equation. • I can show that subtraction equations are true. • I can explain the meaning of the equal sign.		

Mathematical Processes
- Reason abstractly and quantitatively.
- Model with mathematics.
- Use appropriate tools strategically.
- Look for and make use of structure.
- Construct viable arguments and critique the reasoning of others.
- Attend to precision.

SEL
- Responsible Decision-Making - Evaluate; Solve Problems
- Relationship Skills - Communication; Build Relationships
- Self-Awareness - Self Efficacy; Appreciate Diversity
- Self-Management - Self Discipline; Self-Motivation
- Social Awareness - Respect Others

Resources		
Textbook	**Digital**	**Materials**

	IDOE Examples/Tasks 1.NS.3 IDOE Examples/Tasks 1.CA.2 IDOE Examples/Tasks 1.CA.1 IDOE Examples/Tasks 1.CA.3 IDOE Examples/Tasks 1.CA.6 iReady/Ways to Make Ten 1.CA.1 iReady/Count On to Add 1.CA.1 iReady/Doubles Addition Facts 1.CA.1 iReady/Number Pairs for Sums to 10 1.CA.1 iReady/Find Missing Addends 1.CA.2 iReady/Solve Word Problems with Totals to 10 1.CA.2 iReady/True and False Equations 1.CA.6 iReady/Find the Unknown Number 1CA.2	- counters - Number cards 11-19 - number cubes - Number cards 0-120 - Number cards 0-10 - balance scale - connecting cubes - Number line 0-20 - Ten-frames Bear Counters Digital Ten Frames Digital Ten Frames V2 Digital Base Ten Blocks Base Ten Blocks V2 Digital Rekenrek to 20 Two Color Counter Whiteboard Interactive 120's Chart Pan Balance

Unit 6- Shapes and Solids

General Description of the Unit	
In this unit, students identify, describe and 2-D by their attributes. Students also work with defining attributes of 3-D shapes.	
Priority Standards ● **1.G.2** Distinguish between defining attributes of two- and three- dimensional shapes (e.g. triangles are closed and three-sided) versus non-defining attributes (e.g. color, orientation, overall size). Create and draw two-dimensional shapes with defining attributes.	**Supporting Standards** ● **1.G.1** Identify objects as two-dimensional or three-dimensional. Classify and sort two-dimensional and three-dimensional objects by shape, size, roundness, and other attributes. Describe how two-dimensional shapes make up the faces of three-dimensional objects.. ● **1.G.3** Use two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders), to create a composite shape, and compose new shapes from the composite shape. [In Grade 1, students do not need to learn formal names such as "right rectangular prism."]
Proficiency Scales **1.G.2**	**Tiered Assessments**
Enduring Understandings ● Students define 2-dimensional shapes. ● Students understand that shapes are defined by attributes such as numbers of sides and vertices. ● Students understand that shapes have defining and non-defining attributes.	**Essential Questions** ● What are shapes and solids? ● *What do you already know about shapes and solids?* ● *How do you think a shape is like a solid? How do you think it is different?*

- Students understand that shapes can be joined to create new shapes with different properties.
- Students understand that shapes can be joined to create new shapes with different properties.
- Students understand that solid shapes have defining and non-defining attributes.
- Students understand that solids can be combined to build new solids.

Key Concepts	Related Concepts	Math Terms
- I can tell if a 2-dimensional shape is closed. - I can describe 2-dimensional shapes by the attributes they always have. - I can identify 2-dimensional shapes of different colors, sizes, and direction. - I can explain why changing the color, size, or direction does not change the type of shape. - I can use 2-dimensional shapes to make other 2-dimensional shapes. - I can explain how to use shapes to make other shapes. - I can take shapes apart and put them together to make a new shape.	- I can identify objects as two- or three-dimensional. (1.G.1) - I can classify and sort two- and three-dimensional objects by shape, size, roundness, and other attributes. (1.G.1) - I can describe how two-dimensional shapes make up the faces of three-dimensional objects. (1.G.1) - I can combine three-dimensional shapes to create new, composite shapes. (1.G.3) - I can compose new shapes from composite shapes. (1.G.3)	2-dimensional (2-D) shape - attribute - closed - defining attribute - side - vertex 3-dimensional (3-D) shape - apex - base - edge - face - rectangular prism **Academic Terms** - describe - explain - decide - consist - predict - observe

● I can explain how to take shapes apart and put them together to make a new shape. ● I can describe 3-dimensional shapes by the attributes they always have. ● I can recognize that color, size, and direction are non-defining attributes of 3-dimensional shapes. ● I can combine 3-dimensional shapes to make new 3-dimensional shapes. ● I can take apart 3-dimensional composite shapes and make new 3-dimensional shapes.		

Mathematical Processes
- Look for and make use of structure.
- Construct viable arguments and critique the reasoning of others.
- Attend to precision.
- Make sense of problems and persevere in solving them.
- Model with mathematics.
- Use appropriate tools strategically.

SEL
- Responsible Decision-Making: Ethical Responsibility
- Self-Awareness: Accurate Self-Perception; Self-Confidence
- Self-Management: Control Impulses
- Social Awareness: Appreciate Diversity

- Relationship Skills: Build Relationships

Resources		

Textbook	Digital	Materials
	IDOE Examples/Tasks 1.G.1 IDOE Examples/Tasks 1.G.2 IDOE Examples/Tasks 1.G.3 iReady/Defining Attributes of Shapes 1.G.2 iReady/Making NewShapes1.G.2 iReady/Making New Shapes 1.G.3 Pattern Blocks Pattern Blocks Geoboard Tangrams Shape Counters Geometric Solids Interactive Prisms Interactive Triangular/ Rectangular Pyramids Interactive Cylinder Interactive Cone Interactive Spheres Geogebra	● 4 straws of the same length and 2 straws of the same length but longer than the other 4 straws ● pattern blocks ● attribute blocks ● Pattern blocks 3 ● poster board ● tangrams ● geometric solids (cones, cubes, cylinders, rectangular prisms, and spheres) ● real-life solids ● geometric solids (cones, cubes, cylinders, and rectangular prisms)

Unit 7 - Meanings of Addition

General Description of the Unit	
In this unit, students represent and solve addition word problems. Students will extend their understanding of strategies to solve addition word problems.	
Priority Standards ● **1.CA.4** Solve real-world problems that call for addition of three whole numbers whose sum is within 20 (e.g. by using objects, drawings, and equations with a symbol for the unknown number to represent the problem).	**Supporting Standards** ● **1.CA.2** Solve real-world problems involving addition and subtraction within 20 in situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all parts of the addition or subtraction problem (e.g. by using objects, drawings, and equations with a symbol for the unknown number to represent the problem).
Proficiency Scales	**Tiered Assessments**
Enduring Understandings ● Students build on their proficiency for solving addition word problems by representing and solving add to word problems within 20 using objects and equations. ● Students build on their proficiency for solving addition word problems by applying their experience solving add to problems with unknown results to solving add to problems with unknown addends.	**Essential Questions** ● How can I solve addition problems? ● *What do you already know about solving addition problems?* ● *What strategies can you use to add?* ● *What tools can you use to help you add?*

● Students build on their proficiency for solving addition word problems by representing and solving put together word problems within 20 using objects and equations. ● Students build on their proficiency for solving addition word problems by using objects and equations to represent and solve put together word problems within 20 when both addends are unknown or when one addend is unknown. ● Students build on their proficiency for solving addition word problems with three addends. ● Students build on their proficiency for solving addition word problems.	

Key Concepts	**Related Concepts**	**Math Terms**
● I can add one part to another to find the result. ● I can represent a word problem to show adding two parts to find the result. ● I can solve a word problem that has an unknown addend. ● I can represent a word problem that has an unknown addend. ● I can put together two parts to find the total. ● I can represent a word problem to show putting together two parts to find the total.		● addend ● sum ● total ● unknown ● word problem ● part ● whole **Academic Terms** ● affect ● observation ● describe ● explore ● discuss information

● I can solve an addition problem with both addends unknown. ● I can solve an addition problem with one addend unknown. ● I can represent an addition problem with an equation when there are three addends. ● I can solve an addition problem with three addends. ● I can solve different kinds of addition word problems. ● I can explain how to represent different kinds of addition word problems.		● begin ● explain ● organize ● compare ● identify ● select

Mathematical Processes
- Model with mathematics.
- Reason abstractly and quantitatively.
- Construct viable arguments and critique the reasoning of others.
- Look for and make use of structure.
- Look for and express regularity in repeated reasoning.
- Make sense of problems and persevere in solving them.
- Use appropriate tools strategically.
-

SEL
- Self-Management: Organizational Skills
- Responsible Decision-Making: Identify Problems; Analyze Situations
- Self-Awareness: Recognize Strengths; Develop Perspective
- Relationship Skills: Teamwork

	Resources	
Textbook	**Digital**	**Materials**
	IDOE Examples/Tasks 1.CA.2 IDOE Examples/Tasks 1.CA.4 iReady/Use Strategies to Add 3 Numbers 1.CA.4 Ten Frame Digital Base Ten Blocks Base Ten Blocks V2 Digital Rekenrek to 20 Two Color Counter Whiteboard Interactive 120's Chart Pan Balance	● connecting cubes ● counters ● Double Ten-Frames ● Number Cards 0-10 ● Number Line 0-20 ● Part-Part Whole Mat ● Number Bond 1 ● paper clips ● number cubes

Unit 8 - Meaning of Subtraction

General Description of the Unit	
In this unit, students develop concepts of subtraction within 20 through the context of take from and take apart. Students use models and drawings to illustrate those situations. The part-part whole mat is used to visualize the take apart concept.	
Priority Standards	**Supporting Standards**
● **1.CA.2:** Solve real-world problems involving addition and subtraction within 20 in situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all parts of the addition or subtraction problem (e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem).	● **1.CA.1** Demonstrate fluency with addition facts and the corresponding subtraction facts within 20. Use strategies such as counting on; making ten (e.g. 8+6=8+2+4=10+4=14); decomposing a number leading to a ten (e.g. 13-4=13-3-1=10-1=9); using the relationship between addition and subtraction (e.g. knowing that 8+4=12, one knows 12-8=4); and creating equivalent but easier or known sums (e.g. adding 6+7 by creating the known equivalent 6+6+1=12+1=13). Understand the role of 0 in addition and subtraction.
Proficiency Scales 1.CA.2	**Tiered Assessments**
Enduring Understandings ● Students write equations to solve real-world problems. ● Students apply their knowledge of subtracting when either the change or the total is unknown to solve real-world problems. ● Students apply strategies to solve real-world problems in which the totals are unknown.	**Essential Questions** ● How can I solve subtraction problems? ● *What do we already know about solving subtraction problems?* ● *What strategies can you use to subtract? What tools can you use to help you subtract?*

- Students solve real-world problems in which both parts are unknown.
- Students apply strategies to solve real-world problems in which one part is unknown.
- Students apply subtraction strategies to solve real-world problems with different situations.
- Students use both addition and subtraction to solve real-world problems.

Key Concepts	**Related Concepts**	**Math Terms**
- I can take from the total when the difference is unknown. - I can represent a subtraction problem when the difference is unknown. - I can represent a subtraction problem when the difference is unknown. - I can solve for an unknown number that is taken from the total. - I can represent a subtraction problem when the change is unknown. - I can solve for the total in subtraction problems.	- I can create a real-world problem involving addition within 20. (1.CA.3) - I can create a real-world problem involving subtraction within 20. (1.CA.3) - I can add three whole numbers whose sum is within 20 to solve real-world addition problems. (1.CA.4) - I can use objects, drawings, and equations to add three whole numbers whose sum is within 20 to solve real-world problems. (1.CA.4) - I can understand what the equal sign means. (1.CA.6)	difference part total unknown word problem whole **Academic Terms** related represent describe explore discuss explain decide

● I can represent subtraction problems when the total is unknown. ● I can solve for both parts in subtraction problems. ● I can represent subtraction problems when both parts are unknown. ● I can solve for one part in subtraction problems. ● I can explain how to solve for one part in subtraction problems. ● I can solve different kinds of subtraction word problems. ● I can make representations to show word problems. ● I can solve problems using addition or subtraction. ● I can explain how to solve problems using addition or subtraction.	● I can determine if addition problems are true or false. (1.CA.6) ● I can determine if subtraction problems are true or false. (1.CA.6)	

Mathematical Processes
- Reason abstractly and quantitatively.
- Model with mathematics.
- Construct viable arguments and critique the reasoning of others.
- Use appropriate tools strategically.
- Make sense of problems and persevere in solving them.
- Look for and make use of structure.

SEL
- Self-Management: Self-Motivation
- Social Awareness: Empathy; Appreciate Diversity
- Self-Awareness: Self-Efficacy; Identify Emotions
- Responsible Decision-Making: Identify Problems
- Relationship Skills: Build Relationships

Resources

	Digital	**Materials**
	IIDOE Examples/Tasks 1.CA.2	● connecting cubes ● counter ● Number Cards 0-10 ● Number Cards 11-19 ● Number Line 0-20 ● Double Ten-Frame ● Number Bond 1 ● Part-Part Whole Mat

Unit 9 - Addition within 100

General Description of the Unit	
In this unit, students will build on the knowledge they gained from previous units as they work through these concepts: ➢ Add Multiples of 10 ➢ Regrouping ➢ Equations	
Priority Standards ● **1.CA.5** 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 models or drawings and strategies based on place value; properties of operations, and/or the relationship between addition and subtraction; describe the strategy and explain the reasoning used. Understand that in adding two-digit numbers , one adds tens and tens, ones and ones, and that sometimes it is necessary to compose a ten.	**Supporting Standards** ● **1.NS.5** Find mentally 10 more or 10 less than a given two-digit number without having to count, and explain the thinking process used to get the answer. ● **1.CA.7** Create, extend, and give an appropriate rule for number patterns using addition within 100.
Proficiency Scales **1.CA.5**	**Tiered Assessments**
Enduring Understandings ● Students extend their understanding of place value by identifying the relationship between the tens and ones places, then adding ten to a number.	**Essential Questions** ● How do I use strategies to add 2-digit numbers? ● *What do you already know about addition?* ● *What does it mean to add 2-digit numbers?* ● *What do you think you will be doing in the unit?*

- Students build fluency with addition by using number patterns, representations, charts, and number lines to add multiples of 10 to any number less than 100.
- Students build fluency with addition by using number patterns, representations, and base-ten blocks to add 2-digit and 1-digit numbers less than 100.
- Students build fluency with addition by decomposing numbers and using representations with base-ten blocks to add 2-digit numbers.
- Students build fluency with addition by using representations and number lines to add 2-digit numbers.
- Students solve 2-digit addition problems that include regrouping.
- Students develop proficiency in adding 2-digit and 1-digit numbers with regrouping.
- Students solve 2-digit addition problems that include regrouping.
-

Key Concepts	Related Concepts	Math Terms
- I can add 10 more than a number using mental math. - I can explain how to add 10 more than a number using mental math. - I can add tens to any number - I can explain how to add tens to any number. - I can count on to add 2-digit and 1-digit numbers. - I can use place value to add 2-digit and 1-digit numbers. - I can use place value to break apart numbers to help me add. - I can explain how breaking apart numbers can help me add. - I can add any 2-digit numbers using an open number line. - I can explain how to add 2-digit numbers using an open number line. - I can break apart an addend to add 2-digit and 1-digit numbers on an open number line. - I can explain how to add 2-digit and 1-digit numbers on an open number line.	- I can mentally find 10 more than a two-digit number. (1.NS.5) - I can mentally find 10 less than a two-digit number. (1.NS.5) - I can explain how to mentally find 10 more than a two-digit number. (1.NS.5) - I can explain how to mentally find 10 less than a two-digit number. (1.NS.5) - I can create number patterns using addition within 100. (1.CA.7) - I can extend number patterns using addition within 100. (1.CA.7) - I can state appropriate rules for number patterns using addition within 100. (1.CA.7)	2-digit number addend digit equation ones place value sum tens value open number line regroup **Academic Terms** mental pattern change explain break apart explore tool describe notice strategies

● I can regroup to add 2-digit and 1-digit numbers. ● I can explain how to regroup to add 2-digit and 1-digit numbers. ● I can add 2digit numbers with regrouping. ● I can explain how to add 2-digit numbers with regrouping.		

Mathematical Processes
- Reason abstractly and quantitatively.
- Look for and make use of structure.
- Use appropriate tools strategically.
- Construct viable arguments and critique the reasoning of others.
- Model with mathematics.
-

SEL
- Relationship Skills: Social Engagement; Communication
- Responsible Decision-Making: Reflect; Solve Problems
- Self-Awareness: Recognize Strengths; Accurate Self Perception
- Social-Awareness: Empathy
- Self-Management: Goal Setting

Resources		
Textbook	**Digital**	**Materials**
	IDOE Examples/Tasks 1.CA.5 IDOE Examples/Tasks 1.NS.5	● base-ten blocks ● number cubes

	IDOE Examples/Tasks 1.CA.7 iReady/Adding Tens to Two Digit Numbers 1.NS.5 Rekenrek 100 Interactive 120's Chart Base Ten Blocks Ten Frame Place-Value Discs	● Number Cards 0-10 ● Blank Open Number Lines ● counters

Unit 10 - Compare Using Addition and Subtraction

General Description of the Unit	
In this unit, students will build on the knowledge they gained from previous units as they work through compare situations: ➢ Difference Unknown ➢ Greater Unknown ➢ Lesser Unknown	

Priority Standards	Supporting Standards
● **1.CA.2** Solve real world problems involving addition and subtraction within 20 in situations of adding to, taking from, putting together, taking apart, and comparing with unknown in all parts of the addition or subtraction problem.	● **1.CA.2** Solve real world problems involving addition and subtraction within 20 in situations of adding to, taking from, putting together, taking apart, and comparing with unknown in all parts of the addition or subtraction problem.

Proficiency Scales	Tiered Assessments

Enduring Understandings	Essential Questions
● Students develop conceptual understanding that quantities can be compared to solve word problems. ● Students develop conceptual understanding that knowing the lesser quantity in comparison word problems help solve them. ● Students develop conceptual understanding that knowing the greater quantity in comparison word problems can be helpful to solve the word problems.	● How can I compare using addition and subtraction? ● *What do we already know about solving addition and subtraction word problems?* ● *What words do you think compare word problems will use?*

● Students develop conceptual understanding that knowing either the greater or lesser quantity in comparison word problems helps solve them.	

Key Concepts	Related Concepts	Math Terms
● I can solve compare problems with the difference unknown using addition to subtraction equations. ● I can explain how to solve compare problems with the difference unknown. ● I can solve compare problems with the greater quantity unknown using addition equations. ● I can explain how to solve compare problems with the greater quantity unknown. ● I can solve compare problems with the lesser quantity unknown using addition or subtraction equations. ● I can explain how to solve compare problems with the lesser quantity unknown.	● N/A	addend compare difference equation unknown word problem sum **Academic Terms** different observations apparently represent consider provided purpose represent continued displayed scoreboard

● I can solve compare problems using addition or subtraction equations. ● I can explain how to solve compare problems using addition or subtraction equations.		

Mathematical Processes
SEL
- Relationship Skills: Social Engagement
- Self-Management: Organizational Skills
- Social Awareness: Develop Perspective
- Self-Awareness: Self-Confidence

Resources		
Textbook	**Digital**	**Materials**
		● connecting cubes ● counters ● Double-Ten Frames ● Number Line 0-20

Unit 11 - Subtraction within 100

General Description of the Unit	
In this unit, students build on the knowledge they gained from previous units as they work through these concepts: ➢ Subtract Multiples of 10 ➢ Subtraction Patterns ➢ Equations	
Priority Standards ● **1.NS.5** Find mentally 10 more or 10 less than a given two-digit number without having to count, and explain the thinking process used to get the answer.	**Supporting Standards** ● **1.NS.5** Find mentally 10 more or 10 less than a given two-digit number without having to count, and explain the thinking process used to get the answer.
Proficiency Scales	**Tiered Assessments**
Enduring Understandings ● Students build on their understanding of subtraction and how they can use mental math to understand and identify patterns when finding 10 less than a number. ● Students build on their understanding of place value as they subtract multiples of 10. ● Students build on their understanding of place value as they use number charts and number lines to subtract multiples of 10. ● Students build on their understanding of the inverse relationship between addition and subtraction as they use known addition facts as a strategy to subtract multiples of 10.	**Essential Questions** ● What do you already know about subtraction? ● What does it mean to use a strategy? ● What do you think you will be doing in this unit?

● Students build on their understanding of subtraction by being able to explain the various strategies that can be used to subtract multiples of 10.	

Key Concepts	Related Concepts	Math Terms
● I can find 10 less than a number. ● I can explain the patterns I see when finding 10 less. ● I can use blocks and drawings to subtract tens. ● I can explain how to use blocks and drawings to subtract tens. ● I can use a number chart and number lines to subtract tens. ● I can explain how to use a number chart and number lines to subtract tens. ● I can use addition to subtract tens. ● I can explain how to use known addition facts to subtract tens. ● I can explain the strategies used to determine the difference of a multiple of 10 from a larger multiple of 10.	● N/A	2-digit number difference digit equation ones place value tens open number line place value total **Academic Terms** pattern realize relate imply information packages represent column decreasing relates operation related represent

Mathematical Processes
- *PS.6 Attend to precision*
  - o Identify and use symbols and vocabulary appropriately.
  - o Identify the appropriate mathematical language in another student's explanation of a problem.

Resources

Textbook	Digital	Materials
	IDOE Examples/Tasks 1.CA.5 IDOE Examples/Tasks 1.NS.5 IDOE Examples/Tasks 1.CA.7 iReady/Adding Tens to Two Digit Numbers 1.NS.5 Rekenrek 100 Interactive 120's Chart Base Ten Blocks Ten Frame Place-Value Discs	● counters ● Number Cards 0-120 ● Number Chart 1-100 ● base ten blocks ● Tens Cards ● Blank Open Number lines ● Number Bond 1

Unit 12 - Measurement and Data

General Description of the Unit	
In this unit, students learn about measuring and comparing length, about telling time to the nearest hour and half-hour, and about collecting, organizing, representing, and displaying data.	

Priority Standards	**Supporting Standards**
● **1.M.2** Tell and write time to the nearest half-hour and relate time to events (before/after, shorter/longer) using analog clocks. Understand how to read hours and minutes using digital clocks. ● **1.M.3** Identify the value of a penny, nickel, dime, and a collection of pennies, nickels. and dimes.	● **1.DA.1** Organize and interpret data with up to three choices(What is your favorite fruit? apples, bananas, oranges); ask and answer questions about the total number of data points, how many in each choice, and how many more or less in one choice compared to another. ● **1.M.1** Use direct comparison or a nonstandard unit to compare and order objects according to length, area, capacity, weight, and temperature.
Proficiency Scales **1.M.2** **1.M.3**	**Tiered Assessments**
Enduring Understandings ● Students build on their understanding of comparing objects by using a measurable attribute, such as length. ● Students build on their understanding of measuring and comparing lengths by using indirect measurement to measure and compare.	**Essential Questions** ● What are some ways you can measure length? ● What are some ways you can collect data? ● What do you think you will be doing in this unit?

- Students build on their understanding of length and comparing lengths by finding the lengths of an object when using same-size length units.
- Students build on their understanding of length and comparing lengths by describing why different-length units give different measurements.
- Students learn about the parts of a clock and how to tell time to the nearest hour.
- Students build on their understanding of telling time to the hour by telling time to the half hour.
- Students learn how to organize data by identifying attributes and arranging the data into categories.
- Students understand how to organize data by using tally charts.
- Students expand their understanding of interpreting tally charts and use them to answer questions about the data they represent.
-

	Related Concepts	**Math Terms**
	● **N/A**	compare
		length
		longer
		longest
		shorter
		shortest
		measure
		unit

		analog/digital clock hour hour hand minute minute hand data tally chart tally marks dollar $ ¢ nickel penny quarter heavier lighter weight capacity holds less holds more temperature **Academic Terms** order process arrangement purpose accurate challenging overlap

		alignment different represent attribute categorize organize important reason title category represent occupy purpose value order image represent value

Mathematical Processes

- *PS.5 Use tools appropriately.*
  - o Consider a variety of tools necessary to solve a specific math problem.
- *PS.6 Attend to precision.*
  - o Accurately determine the unit of measure of a given problem.

Resources

Textbook	Digital	Materials
		- assorted objects (school supplies) - connecting cubes - counters - paper clips - large paper clips - brad clips - cardstock paper (2 colors) - paper plates - student clocks - Clocks Teaching Resource - Number Cards 0-10 & 11-19 - brown paper bags - Tally Chart 2 - unit cubes - coins - index cards - one-dollar bills - pennies - nickels - dimes - quarters - index cards - hundred chart - paper bags - bucket balance - large & small container - half-gallon container - dry cereal

		- half-pint container - red color tiles - small cups - connecting cubes - counters - objects of different temperatures

Unit 13 - Equal Shares

General Description of the Unit
In this unit, students learn to determine if a 2-D has been partitioned into equal shares. They also partition 2-D shapes to create equal shares (halves and quarters) and explain why or why not they show equal shares.

Priority Standards	Supporting Standards
● **1.G.4** Partition circles and rectangles into two and four equal parts; describe the parts using the words halves, fourths, and quarters; and use the phrases half of, fourth of, and quarter of. Describe the whole as two of, or four of, the parts. Understand for partitioning circles and rectangles into two and four equal parts that decomposing into equal parts creates smaller parts.	

Proficiency Scales	Tiered Assessments

Enduring Understandings	Essential Questions
● Students develop conceptual understanding of equal shares by identifying whether given shapes are decomposed into identical parts. ● Students develop conceptual understanding of halves by identifying whether shapes are decomposed into two identical parts. ● Students develop conceptual understanding of fourths by identifying whether shapes are decomposed into four identical parts.	● What do you already know about equal shares? ● What does it mean to have equal shares of an object? ● What do you think you will be doing in the unit?

- Students develop conceptual understanding of identifying a whole shape that is partitioned as two halves or four fourths.
- Students develop conceptual understanding that in identical shapes, more equal shares create smaller shares.

Key Concepts	**Related Concepts**	**Math Terms**
- I can tell if parts of a shape are equal. - I can describe equal shares. - I can identify halves. - I can partition shapes to create halves. - I can identify fourths. - I can partition shapes to create fourths. - I can describe a whole shape with 2 equal shares as having two halves. - I can describe a whole shape with 4 equal shares as having four fourths. - I can identify a whole cut into halves as having fewer equal	**N/A**	equal equal shares whole half (halves) half of fourth fourth of quarter quarter of **Academic Terms** compare relate different explain combine describe notice

shares than the same whole cut into fourths. ● I can describe the shares of a whole cut into fourths as having smaller equal shares than the same whole cut into halves.		

Mathematical Processes
- *PS.1 Make sense of problems and persevere in solving them.*
    - o   Explain the meaning of a given problem by analyzing explicit evidence.

- *PS.7 Look for and make use of structure.*
    - o   Use what I already know about math to solve new problems.

Resources

Textbook	Digital	Materials
		● Pattern Blocks 3 Teaching Resource

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