Grade 1 Mathematics Curriculum Guide

Grade Level/Course Title: Grade 1	**Trimester 1**	**Academic Year:** 2017-2018

Grade Level Mathematics Focus:
In Grade 1, instructional time should focus on four critical areas: (1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 20; (2) developing understanding of whole number relationships and place value, including grouping in tens and ones; (3) developing understanding of linear measurement and measuring lengths as iterating length units; and (4) reasoning about attributes of, and composing and decomposing geometric shapes.

Essential Questions:
1. How can students develop strategies for adding and subtracting whole numbers based on their prior work with small numbers?
2. How can students use a variety of models, including discrete objects and length-based models (e.g., cubes connected to form lengths), to model add-to, take-from, put-together, take-apart, and compare situations to develop meaning for the operations of addition and subtraction, and to develop strategies to solve arithmetic problems with these operations?

Time Frame	Standard	Standard Description	Content	Resources
(Aug.-Sept.) **Chapter 1:** **Addition Concepts** **(Approx. 21 days)** (Continues on next page)	1.OA.1	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	• Counting forward and backward by ones • Write numbers to represent quantities • Compare numbers • Solve problems using a number line • Using bar models to solve problems • Review 5 + *n* (including on a ten-frame)	**Chapter 1 – Addition Concepts (13 Lessons)** 1-1: Addition Stories 1-2: Model Addition 1-3: Addition Number Sentences 1-4: Add 0 1-5: Vertical Addition 1-6: Problem-Solving Strategy: Write a Number Sentence 1-7: Ways to Make 4 and 5 1-8: Ways to Make 6 and 7 1-9: Ways to Make 8 1-10: Ways to Make 9 1-11: Ways to Make 10 1-12: Find Missing Parts of 10 1-13: True and False Statements Addition/Subtraction Strategies K-7 (GMR) Subitizing [L] Decomposition [L] Bar Models [L] Number Lines [L] Ten Frames [L] Ten Frames [GMR] Side-by-side [L] Addition/Subtraction Game PIG [GMR]
	1.OA.2	Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.		
	1.OA.3	Apply properties of operations as strategies to add and subtract. Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)		
	1.OA.4	Understand subtraction as an unknown-addend problem. For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.		

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Essential Questions:
1. How can students develop strategies for adding and subtracting whole numbers based on their prior work with small numbers?
2. How can students use a variety of models, including discrete objects and length-based models (e.g., cubes connected to form lengths), to model add-to, take-from, put-together, take-apart, and compare situations to develop meaning for the operations of addition and subtraction, and to develop strategies to solve arithmetic problems with these operations?

Time Frame	Standard	Standard Description	Content	Resources
(Aug.-Sept.) **Chapter 1:** **(Continued)** **Addition Concepts**	1.OA.1	Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	• Counting forward and backward by ones • Write numbers to represent quantities • Compare numbers • Solve problems using a number line • Using bar models to solve problems • Review 5 + *n* (including on a ten-frame)	**Chapter 1 – Addition Concepts (13 Lessons)** Three Reads for Word Problems Number Match [L] Number Books [CP] Book [L] Number Books 0 to 9 [L] Complements for Numbers to Ten [L] Fluency to Five (or Ten) [L] Maria's Marbles [IMT] Finding a Chair [IMT] Boys and Girls, Variation 2 [IMT] Daisies in vases [IMT]
	1.OA.2	Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.		
	1.OA.3	Apply properties of operations as strategies to add and subtract. Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)		
	1.OA.4	Understand subtraction as an unknown-addend problem. For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.		

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Essential Questions: (continued from page 1)

3. How can students understand connections between counting and addition and subtraction (e.g., adding two is the same as counting on two)?
4. How can students use properties of addition to add whole numbers and to create and use increasingly sophisticated strategies based on these properties (e.g., "making tens") to solve addition and subtraction problems within 20?
5. How can students, by comparing a variety of solution strategies, build their understanding of the relationship between addition and subtraction?

Time Frame	Standard	Standard Description	Content	Resources
(Sept.-Oct.) **Chapter 2:** **Subtraction Concepts** **(Approx. 21 days)**	1.OA.5	Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).	• Counting forward and backward by ones • Write numbers to represent quantities • Compare numbers • Solve problems using a number line • Using bar models to solve problems • Review 5 + *n* (including on a ten-frame)	**Chapter 2 – Subtraction Concepts (14 Lessons)** 2-1: Subtraction Stories 2-2: Model Subtraction 2-3: Subtraction Number Sentences 2-4: Subtract 0 and All 2-5: Vertical Subtraction 2-6: Problem-Solving Strategy: Draw a Diagram 2-7: Compare Groups 2-8: Subtract from 4 and 5 2-9: Subtract from 6 and 7 2-10: Subtract from 8 2-11: Subtract from 9 2-12: Subtract from 10 2-13: Relate Addition and Subtraction 2-14: True and False Statements Working with Unknowns [L] Exploring Equality [L] 20 Tickets [IMT] Cave Game Subtraction [IMT] Valid Equalities? [IMT] Using lengths to represent equality [IMT] Equality Number Sentences [IMT] Find the Missing Number [IMT] **My Math! Common Assessment 1**
	1.OA.6	Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. 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).		
	1.OA.7	Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, 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.OA.8	Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = __ – 3, 6 + 6 = __.*		

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Grade Level Mathematics Focus:
In Grade 1, instructional time should focus on four critical areas: (1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 20; (2) developing understanding of whole number relationships and place value, including grouping in tens and ones; (3) developing understanding of linear measurement and measuring lengths as iterating length units; and (4) reasoning about attributes of, and composing and decomposing geometric shapes.

Essential Questions: (continued from page 1)

3. How can students understand connections between counting and addition and subtraction (e.g., adding two is the same as counting on two)?
4. How can students use properties of addition to add whole numbers and to create and use increasingly sophisticated strategies based on these properties (e.g., "making tens") to solve addition and subtraction problems within 20?
5. How can students, by comparing a variety of solution strategies, build their understanding of the relationship between addition and subtraction?

Time Frame	Standard	Standard Description	Content	Resources
(Oct.-Nov.) **Chapter 3:** **Addition Strategies to 20** **(Approx. 15 days)**	1.OA.5	Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).	• Counting forward and backward by ones • Write numbers to represent quantities • Compare numbers • Solve problems using a number line • Using bar models to solve problems • Review 5 + *n* (including on a ten-frame)	**Chapter 3 – Addition Strategies to 20 (9 Lessons)** 3-1: Count On 1, 2, and 3 3-2: Count On Using Pennies 3-3: Use a Number Line to Add 3-4: Use Doubles to Add 3-5: Use Near Doubles to Add 3-6: Problem-Solving Strategy: Act It Out 3-7: Make 10 to Add 3-8: Add in Any Order 3-9: Add Three Numbers Fluency to Five (or Ten) [L] Working with Unknowns [L] Exploring Equality [L] Complements for Numbers to Ten [L]
	1.OA.6	Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. 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).		
	1.OA.7	Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, 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.OA.8	Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = __ – 3, 6 + 6 = __.*		

Grade 1 Mathematics Curriculum Guide

Grade Level/Course Title: Grade 1	**Trimester 2**	**Academic Year:** 2017-2018

Grade Level Mathematics Focus:
In Grade 1, instructional time should focus on four critical areas: (1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 20; (2) developing understanding of whole number relationships and place value, including grouping in tens and ones; (3) developing understanding of linear measurement and measuring lengths as iterating length units; and (4) reasoning about attributes of, and composing and decomposing geometric shapes.

Essential Questions: (continued from page 1)

3. How can students understand connections between counting and addition and subtraction (e.g., adding two is the same as counting on two)?
4. How can students use properties of addition to add whole numbers and to create and use increasingly sophisticated strategies based on these properties (e.g., "making tens") to solve addition and subtraction problems within 20?
5. How can students, by comparing a variety of solution strategies, build their understanding of the relationship between addition and subtraction?

Time Frame	Standard	Standard Description	Content	Resources
(Nov.-Dec.) **Chapter 4:** **Subtraction Strategies to 20** **(Approx. 21 days)**	1.OA.5	Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).	• Counting forward and backward by ones • Write numbers to represent quantities • Compare numbers • Solve problems using a number line • Using bar models to solve problems • Review 5 + *n* (including on a ten-frame)	**Chapter 4 – Subtraction Strategies to 20 (8 Lessons)** 4-1: Count Back 1, 2, or 3 4-2: Use a Number Line to Subtract 4-3: Use Doubles to Subtract 4-4: Problem-Solving Strategy: Write a Number Sentence 4-5: Make 10 to Subtract 4-6: Use Related Facts to Add and Subtract 4-7: Fact Families 4-8: Missing Addends Subitizing [L] Decomposition [L] Bar Models [L] Number Lines [L] Ten Frames [L] Ten Frames [GMR] Side-by-side [L] Number Match [L] **My Math! Common Assessment 2**
	1.OA.6	Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. 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).		
	1.OA.7	Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. For example, 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.OA.8	Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = __ – 3, 6 + 6 = __.*		

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Grade Level/Course Title: Grade 1	**Trimester 2**	**Academic Year:** 2017-2018

Grade Level Mathematics Focus:
In Grade 1, instructional time should focus on four critical areas: (1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 20; (2) developing understanding of whole number relationships and place value, including grouping in tens and ones; (3) developing understanding of linear measurement and measuring lengths as iterating length units; and (4) reasoning about attributes of, and composing and decomposing geometric shapes.

Essential Questions:
1. How can students develop, discuss, and use efficient, accurate, and generalizable methods to add within 100 and subtract multiples of 10?
2. How can students compare whole numbers (at least to 100) to develop understanding of and solve problems involving their relative sizes?
3. How can students think of whole numbers between 10 and 100 in terms of tens and ones (especially recognizing the numbers 11 to 19 as composed of a ten and some ones)?
4. How can students, through activities that build number sense, understand the order of the counting numbers and their relative magnitudes?

Time Frame	Standard	Standard Description	Content	Resources
(Dec.-Jan.) **Chapter 5:** **Place Value** **(Approx. 21 days)** (Continues on next page)	1.NBT.1	Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	• Decomposition of 2-digit whole numbers by tens and ones • Inverse relationship between addition and subtraction	**Chapter 5 – Place Value (14 Lessons)** 5-1: Numbers 11 to 19 5-2: Tens 5-3: Count by Tens Using Dimes 5-4: Ten and Some More 5-5: Tens and Ones 5-6: Problem-Solving Strategy: Make a Table 5-7: Numbers to 100 5-8: Ten More, Ten Less 5-9: Count by Fives 5-10: Use Models to Compare Numbers 5-11: Use Symbols to Compare Numbers 5-12: Numbers to 120 5-13: Count to 120 5-14: Read and Write Numbers to 120 Number Books 10 to 20 [L] Hundreds Chart [GMR] Hundreds Chart (Alternative) [GMR] Tackling the Terrific Teens [L] Working with Teens [L] Fact Families [L] "Crossing the Decade" Concentration [IMT]
	1.NBT.2	Understand that the two digits of a two-digit number represent amounts of tens and ones. a. 10 can be thought of as a bundle of ten ones — called a "ten." b. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. c. 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.NBT.3	Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.		

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Essential Questions:
1. How can students develop, discuss, and use efficient, accurate, and generalizable methods to add within 100 and subtract multiples of 10?
2. How can students compare whole numbers (at least to 100) to develop understanding of and solve problems involving their relative sizes?
3. How can students think of whole numbers between 10 and 100 in terms of tens and ones (especially recognizing the numbers 11 to 19 as composed of a ten and some ones)?
4. How can students, through activities that build number sense, understand the order of the counting numbers and their relative magnitudes?

Time Frame	Standard	Standard Description	Content	Resources
(Dec.-Jan.) **Chapter 5:** **(Continued)** **Place Value**	1.NBT.1	Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	• Decomposition of 2-digit whole numbers by tens and ones • Inverse relationship between addition and subtraction	**Chapter 5 – Place Value (14 Lessons)** Adding and Subtracting — Inverse Operations [L] Adding By Finding Tens [L] Number of the Day [IMT] Where Do I Go? [IMT] Roll & Build [IMT] Ordering Numbers [IMT] Comparing Numbers [IMT]
	1.NBT.2	Understand that the two digits of a two-digit number represent amounts of tens and ones. d. 10 can be thought of as a bundle of ten ones — called a "ten." e. The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. f. 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.NBT.3	Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.		

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Essential Questions:
1. How can students develop, discuss, and use efficient, accurate, and generalizable methods to add within 100 and subtract multiples of 10?
2. How can students compare whole numbers (at least to 100) to develop understanding of and solve problems involving their relative sizes?
3. How can students think of whole numbers between 10 and 100 in terms of tens and ones (especially recognizing the numbers 11 to 19 as composed of a ten and some ones)?
4. How can students, through activities that build number sense, understand the order of the counting numbers and their relative magnitudes?

Time Frame	Standard	Standard Description	Content	Resources
(Jan.-Feb.) **Chapter 6: Two-Digit Addition and Subtraction** **(Approx. 14 days)**	1.NBT.4	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 and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten.	• Decomposition of 2-digit whole numbers by tens and ones • Inverse relationship between addition and subtraction	**Chapter 6 – Two-Digit Addition and Subtraction (8 Lessons)** 6-1: Add Tens 6-2: Count On Tens and Ones 6-3: Add Tens and Ones 6-4: Problem-Solving Strategy: Guess, Check, and Revise 6-5: Add Tens and Ones with Regrouping 6-6: Subtract Tens 6-7: Count Back by 10s 6-8: Relate Addition and Subtraction of Tens Adding and Subtracting Within 100 [L] Adding and Subtracting — Inverse Operations [L] Adding By Finding Tens [L] Subtraction — Comparison Model [L] Sums of 10, 100, and 1,000 [L] Working with Teens [L] Ford and Logan Add 45+36 [IMT]
	1.NBT.5	Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used.		
	1.NBT.6	Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used.		

Grade 1 Mathematics Curriculum Guide

Grade Level/Course Title: Grade 1	**Trimester 3**	**Academic Year:** 2017-2018

Grade Level Mathematics Focus:
In Grade 1, instructional time should focus on four critical areas: (1) developing understanding of addition, subtraction, and strategies for addition and subtraction within 20; (2) developing understanding of whole number relationships and place value, including grouping in tens and ones; (3) developing understanding of linear measurement and measuring lengths as iterating length units; and (4) reasoning about attributes of, and composing and decomposing geometric shapes.

Essential Questions:
1. How can students develop an understanding of the meaning and processes of measurement, including underlying concepts such as iterating (the mental activity of building up the length of an object with equal-sized units) and the transitivity principle for indirect measurement? (Students should apply the principle of transitivity of measurement to make indirect comparisons, but they need not use this technical term.)

Time Frame	Standard	Standard Description	Content	Resources
(Feb.-March) **Chapter 7:** **Organize and Use Graphs** **(Approx. 12 days)**	1.MD.4	Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.	• Organize data	**Chapter 7 – Organize and Use Graphs (6 Lessons)** 7-1: Tally Charts 7-2: Problem-Solving Strategy: Make a Table 7-3: Make Picture Graphs 7-4: Read Picture Graphs 7-5: Make Bar Graphs 7-6: Read Bar Graphs Classify and Organize [L] Measurement in the Primary Grades [L] Graphing in the Primary Grades [L] **My Math! Common Assessment 3**

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Essential Questions:
1. How can students develop an understanding of the meaning and processes of measurement, including underlying concepts such as iterating (the mental activity of building up the length of an object with equal-sized units) and the transitivity principle for indirect measurement? (Students should apply the principle of transitivity of measurement to make indirect comparisons, but they need not use this technical term.)

Time Frame	Standard	Standard Description	Content	Resources
(March-April) **Chapter 8:** **Measurement and Time** **(Approx. 15 days)**	1.MD.1	Order three objects by length; compare the lengths of two objects indirectly by using a third object.	• Organize data	**Chapter 8 – Measurement and Time (9 Lessons)** 8-1: Compare Lengths 8-2: Compare and Order Lengths 8-3: Nonstandard Units of Length 8-4: Problem-Solving Strategy: Guess, Check, and Revise 8-5: Time to the Hour: Analog 8-6: Time to the Hour: Digital 8-7: Time to the Half Hour: Analog 8-8: Time to the Half Hour: Digital 8-9: Time to the Hour and Half Hour Classify and Organize [L] Measurement in the Primary Grades [L] How Long? [IMT]
	1.MD.2	Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.*		
	1.MD.3	Tell and write time in hours and half-hours using analog and digital clocks.		
	1.MD.4	Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.		

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Essential Questions:
1. How can students compose and decompose plane or solid figures (e.g., put two triangles together to make a quadrilateral) and build understanding of part-whole relationships as well as the properties of the original and composite shapes?
2. How can students, as they combine shapes, recognize them from different perspectives and orientations, describe their geometric attributes, and determine how they are alike and different, to develop the background for measurement and for initial understandings of properties such as congruence and symmetry?

Time Frame	Standard	Standard Description	Content	Resources
(April-May) **Chapter 9:** **Two-Dimensional Shapes and Equal Shares** **(Approx. 17 days)**	1.G.1	Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.	• Attributes of two dimensional shapes • Decomposition and re-composition of two dimensional shapes • Congruence • Symmetry	**Chapter 9 – Two-Dimensional Shapes and Equal Shares (10 Lessons)** 9-1: Squares and Rectangles 9-2: Triangles and Trapezoids 9-3: Circles 9-4: Compare Shapes 9-5: Composite Shapes 9-6: More Composite Shapes 9-7: Problem-Solving Strategy: Use Logical Reasoning 9-8: Equal Parts 9-9: Halves 9-10: Quarters and Fourths Where's Shape-O? [L] Geometry and Justifying [L] Decomposing/Recomposing Geometric Shapes [L] All vs. Only some [IMT] Overlapping Rectangles [IMT] Counting Squares [IMT] Make Your Own Puzzle [IMT] Equal Shares [IMT]
	1.G.2	Compose 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.		
	1.G.3	Partition circles and rectangles into two and four equal shares, describe the shares 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 shares. Understand for these examples that decomposing into more equal shares creates smaller shares.		

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Essential Questions:
1. How can students compose and decompose plane or solid figures (e.g., put two triangles together to make a quadrilateral) and build understanding of part-whole relationships as well as the properties of the original and composite shapes?
2. How can students, as they combine shapes, recognize them from different perspectives and orientations, describe their geometric attributes, and determine how they are alike and different, to develop the background for measurement and for initial understandings of properties such as congruence and symmetry?

Time Frame	Standard	Standard Description	Content	Resources
(May-June) **Chapter 10:** **Three-Dimensional Shapes** **(Approx. 10 days)**	1.G.1	Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes.	• Attributes of two dimensional shapes • Decomposition and re-composition of two dimensional shapes • Congruence • Symmetry	**Chapter 10 – Three-Dimensional Shapes (4 Lessons)** 10-1: Cubes and Prisms 10-2: Cones and Cylinders 10-3: Problem-Solving Strategy: Look for a Pattern 10-4: Combine Three-Dimensional Shapes Attributes of 3-D Shapes [L] Where's Shape-O? [L] Geometry and Justifying [L] Decomposing/Recomposing Geometric Shapes [L] 3-D Shape Sort [IMT] **My Math! Common Assessment 4**
	1.G.2	Compose 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.		