



Area: Counting and Cardinality

Big Idea: Know the number names and the count sequence.

PA/Common Core Standards	Assessment Anchors/ Eligible Content	Key Vocabulary	Learning Activities	Materials/ Resources/ Technology Tools	Common Summative Assessments/ Targeted Outcomes
Objective: 1: Count to 100 by ones and by tens.					
• K.CC.1		• place value, ones, tens	• Unit 1 Lesson 17, Unit 2 Lesson 1,2,6-8,10 -12,15,16,18,19, Unit 3 Lesson 1-3 Unit 4 Lesson 17, Unit 5 Lesson 2,3,5,13	• Math Expressions Teacher Manual, Math Expressions Student Activity Book, Student Homework and Remembering	• Math Expression Assessments
Objective: 2: Count forward beginning from a given number within the known sequence (instead of having to begin at 1).					
• K.CC.2		• forward, sequence, count	• Unit 1 Lesson 7, Unit 2 Lesson 9,12,15,16,18,19 Unit 3 Lesson 5,7,11, Unit 4 Lesson 15,20, Unit 5 Lesson 13	• Math Expressions Teacher Manual, Math Expressions Student Activity Book, Student Homework and Remembering	• Math Expression Assessments
Objective: 3: Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects).					
• K.CC.3		• number	• Unit 1 Lesson 14,16, Unit 2 Lesson 1,2,5,7-12,14 -16,18,19, Unit 3 Lesson 1,4 -7, 11-14, 18, Unit 4 Lesson 3,8,16,18,20, Unit 5 Lesson 2,4,5,7,8,10,11,14,16,17,20, 23	• Math Expressions Teacher Manual, Math Expressions Student Activity Book, Student Homework and Remembering	• Math Expression Assessments



Area: Counting and Cardinality

Big Idea: Count to tell the number of objects.

PA/Common Core Standards	Assessment Anchors/ Eligible Content	Key Vocabulary	Learning Activities	Materials/ Resources/ Technology Tools	Common Summative Assessments/ Targeted Outcomes
Objective: 1: Understand the relationship between numbers and quantities; connect counting to cardinality. a. When counting objects, say the number names in the standard order, pairing each object with one and only one.					
• K.CC.4		• number, counting	• Unit 1 Lesson 1-9, 11-17, Unit 2 Lesson 3,6,8,10,11,15,18, Unit 3 Lesson 2, Unit 4 Lesson 1,3,12,16,20 Unit 5 Lesson 3	• Math Expressions Teacher Manual, Math Expressions Student Activity Book, Student Homework and Remembering	• Math Expression Assessments
Objective: 2: Understand the relationship between numbers and quantities; connect counting to cardinality. b. Understand that the last number name said tells the number of objects counted. The number of objects is the same regardless of their arrangement or the order in which they were counted.					
• K.CC.4a		• counting, standard order	• Unit 1 Lesson 1-9, 11-17, Unit 2 Lesson 8, 10,11,15, Unit 3 Lesson 2,15,18-20, Unit 4 Lesson 1,3,12,20	• Math Expressions Teacher Manual, Math Expressions Student Activity Book, Student Homework and Remembering	• Math Expression Assessments
Objective: 3: Understand the relationship between numbers and quantities; connect counting to cardinality. c. Understand that each successive number name refers to a quantity that is one larger.					
• K.CC.4b		• count, Number	• Unit 2 Lesson 12,14,16,19 Unit 3 Lesson 5,7,12,20 Unit 4 Lesson 3,5,7,12,15, Unit 5 Lesson 7,15,19,23	• Math Expressions Teacher Manual, Math Expressions Student Activity Book, Student Homework and Remembering	• Math Expression Assessments



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Big Idea: Count to tell the number of objects.

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<ul style="list-style-type: none"> K.CC.5 	<p>Objective: 4: Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle or as many as 10 things in scattered configuration. Given a number form 1-20, count out that many objects.</p>	<ul style="list-style-type: none"> count, line, array, circle 	<ul style="list-style-type: none"> Unit 1 Lesson 13,15,16 Unit 2 Lesson 1-5, 7-10, 12,14,16,18,20 Unit 3 Lesson 1,2,8,10-15, 18-21 Unit 4 Lesson 5-8, 16, Unit 5 Lesson 1-4, 7,14-17, 19, 20 	<ul style="list-style-type: none"> Math Expressions Teacher Manual, Math Expressions Student Activity Book, Student Homework and Remembering 	<ul style="list-style-type: none"> Math Expression Assessments



Area: Counting and Cardinality

Big Idea: Compare numbers.

PA/Common Core Standards	Assessment Anchors/ Eligible Content	Key Vocabulary	Learning Activities	Materials/ Resources/ Technology Tools	Common Summative Assessments/ Targeted Outcomes
Objective: 1: Identify whether the number of objects in one group is greater than, less than, or equal to the number of objects in another group (e.g., by using matching and counting strategies).					
• K.CC.6		• group, greater,less,equal	• Unit 1 Lesson 9, 11-13, 15 -17, Unit 2 Lesson 4,9, Unit 3 Lesson 10,12, Unit 4 Lesson 6,10,20 Unit 5 Lesson 16,17,20	• Math Expressions Teacher Manual, Math Expressions Student Activity Book, Student Homework and Remembering	• Math Expression Assessments
Objective: 2: Compare two numbers between 1 and 10 presented as written numerals.					
• K.CC.7		• compare, numerals	• Unit 2 Lesson 9,18, Unit 3 Lesson 12,14, Unit 5 Lesson 2,17,20	• Math Expressions Teacher Manual, Math Expressions Student Activity Book, Student Homework and Remembering	• Math Expression Assessments



Area: Operations and Algebraic Thinking

Big Idea: Understand addition as putting together and adding to and understanding subtraction as taking apart and taking from.

PA/Common Core Standards	Assessment Anchors/ Eligible Content	Key Vocabulary	Learning Activities	Materials/ Resources/ Technology Tools	Common Summative Assessments/ Targeted Outcomes
Objective: 1: Represent addition and subtraction with objects, fingers, mental images, drawings (drawings need not show details, but should show the mathematics in the problem), sounds (e.g., claps), acting out situations, verbal explanations, expressions, or equations.					
• K.OA.1		<ul style="list-style-type: none"> • addition • subtraction 	<ul style="list-style-type: none"> • Unit 1-Lessons 6, 7, 21, Unit 2 - Lessons 2, 3, 5-7, 9 -12, 14-16, 19, Unit 3 - Lessons 3, 6, 7, 11, 15-20, Unit 4 - Lessons 1-7, 10, 12, 13, 15, 17, 19, Unit 5- Lessons 3, 6-8, 10, 14-16, 19 	<ul style="list-style-type: none"> • Math Expressions Student Activity Book 	<ul style="list-style-type: none"> • Math Expressions Assessments
Objective: 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.2		<ul style="list-style-type: none"> • addition • subtraction • word problems • drawings 	<ul style="list-style-type: none"> • Unit 1 - Lesson 14, Unit 2- Lessons 1, 2, 4, 6, 9-12, 14 -16, 19, Unit 3 - Lessons 1, 3, 4, 7, 11, 16, Unit 4- Lessons 2, 4-7, 10, 12, 15, Unit 5 - Lessons 1, 3, 4, 6, 7, 10, 12, 13, 15, 16, 19 	<ul style="list-style-type: none"> • Math Expressions Student Activity Book 	<ul style="list-style-type: none"> • Math Expressions Assessments
Objective: 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., $5 = 2 + 3$ and $5 = 4 + 1$).					
• K.OA.3		<ul style="list-style-type: none"> • pairs • decompose 	<ul style="list-style-type: none"> • Unit 2 - Lessons 2, 5, 10, 12, 14, 16, 19, 20, Unit 3 - Lessons 3, 4, 6, 16-18, Unit 4 - Lessons 2, 4, 5, 7, 8, 11, 13, 18, 19, Unit 5- Lessons 3 -15, 18 	<ul style="list-style-type: none"> • Math Expressions Student Activity Book 	<ul style="list-style-type: none"> • Math Expressions Assessments



Area: Operations and Algebraic Thinking

Big Idea: Understand addition as putting together and adding to and understanding subtraction as taking apart and taking from.

PA/Common Core Standards	Assessment Anchors/ Eligible Content	Key Vocabulary	Learning Activities	Materials/ Resources/ Technology Tools	Common Summative Assessments/ Targeted Outcomes
Objective: 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.4		<ul style="list-style-type: none"> • makes 10 • drawing • equation 	<ul style="list-style-type: none"> • Unit 2- Lessons 10, 12, 14, 16, 19, Unit 4 - Lessons 2, 4, 8, 11, 13, 18, 19, Unit 5- Lessons 2-4, 6, 8, 9, 11-13, 18 	<ul style="list-style-type: none"> • Math Expressions Student Activity Book 	<ul style="list-style-type: none"> • Math Expressions Assessments
Objective: 5: Fluently add and subtract within 5.					
• K.OA.5		<ul style="list-style-type: none"> • add • subtract 	<ul style="list-style-type: none"> • Unit 2- Lessons 4, 6, 9, 10, 15, Unit 3 - Lessons 4-7, 12, 14, 18, 19, Unit 4 - Lessons 3, 12, 15, 17, Unit 5 - Lessons 1, 3, 7, 12-15, 18 	<ul style="list-style-type: none"> • Math Expressions Student Activity Book 	<ul style="list-style-type: none"> • Math Expressions Assessments



Area: Number and Operations in Base Ten

Big Idea: Work with numbers 11-19 to gain foundations for place value.

PA/Common Core Standards	Assessment Anchors/ Eligible Content	Key Vocabulary	Learning Activities	Materials/ Resources/ Technology Tools	Common Summative Assessments/ Targeted Outcomes
<p>Objective: 1: Compose and decompose numbers from 11 to 19 into ten ones and some further ones (e.g., by using objects or drawings), and record each composition or decomposition by a drawing or equation (such as $18 = 10 + 8$). Understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.</p>					
<ul style="list-style-type: none"> • K.NBT.1 		<ul style="list-style-type: none"> • compose • decompose • tens • ones 	<ul style="list-style-type: none"> • Unit 3- Lessons 2, 3, 5, 6, 8, 13, 15, 17-20, Unit 4 - Lessons 3, 5, 7, 12, 16, 18, 20, Unit 5 - Lessons 1, 3-7, 9, 10, 15, 17-20, 23 	<ul style="list-style-type: none"> • Math Expressions Student Activity Book 	<ul style="list-style-type: none"> • Math Epressions Assessments



Area: Measurement and Data

Big Idea: Describe and compare measurable attributes.

PA/Common Core Standards	Assessment Anchors/ Eligible Content	Key Vocabulary	Learning Activities	Materials/ Resources/ Technology Tools	Common Summative Assessments/ Targeted Outcomes
Objective: 1: Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.					
• K.MD.1		<ul style="list-style-type: none"> • measurable • length • weight • attributes 	• Unit 5 - Lessons 21-23	<ul style="list-style-type: none"> • Math Expressions Student Activity Book 	<ul style="list-style-type: none"> • Math Expressions Assessments
Objective: 2: Directly compare two objects with a measurable attribute in common to see which object has “more of”/“less of” the attribute and describe the difference. For example, directly compare the heights of two children and describe one child as taller/shorter.					
• K.MD.2		<ul style="list-style-type: none"> • compare • measurable • attribute • difference • height 	• Unit 5 - Lessons 21-23	<ul style="list-style-type: none"> • Math Expressions Student Activity Book 	<ul style="list-style-type: none"> • Math Expressions Assessments



Area: Measurement and Data

Big Idea: Classify objects and count the number of objects in each category.

PA/Common Core Standards	Assessment Anchors/ Eligible Content	Key Vocabulary	Learning Activities	Materials/ Resources/ Technology Tools	Common Summative Assessments/ Targeted Outcomes
Objective: 1: Classify objects into given categories, count the numbers of objects in each category, and sort the categories by count. (Limit category counts to be less than or equal to 10.)					
• K.MD.3		• classify • categories	• Unit 1- Lesson 10, Unit 2- Lessons 13, 17, 20, Unit 3- Lessons 10, 12, 21, Unit 4 - Lessons 1, 9, 22	• Math Expressions Student Activity Book	• Math Expressions Assessments



Area: Geometry

Big Idea: Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

PA/Common Core Standards	Assessment Anchors/ Eligible Content	Key Vocabulary	Learning Activities	Materials/ Resources/ Technology Tools	Common Summative Assessments/ Targeted Outcomes
Objective: 1: Describe objects in the environment using names of shapes and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to.					
• K.G.1		<ul style="list-style-type: none"> • describe • shapes • above • below • beside • in front of • behind • next to 	<ul style="list-style-type: none"> • Unit 1- Lessons 8, 10, 18, Unit 2 - Lessons 13, 17, 20, Unit 3 - Lessons 10, 12, 21, Unit 4 - Lessons 1, 9, 14, 21, 22 	<ul style="list-style-type: none"> • Math Expressions Student Activity Book 	<ul style="list-style-type: none"> • Math Expressions Assessments
Objective: 2: Correctly name shapes regardless of their orientations or overall size.					
• K.G.2		<ul style="list-style-type: none"> • shapes • size 	<ul style="list-style-type: none"> • Unit 1 - Lessons 8, 10, 18, Unit 2 - Lessons 13, 17, 20, Unit 3 - Lessons 9-12, 21, Unit 4 - Lessons 9, 14, 21, 22 	<ul style="list-style-type: none"> • Math Expressions Student Activity Book 	<ul style="list-style-type: none"> • Math Expressions Assessments
Objective: 3: Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").					
• K.G.3		<ul style="list-style-type: none"> • two-dimensional • three-dimensional • plane • solid 	<ul style="list-style-type: none"> • Unit 1- Lesson 18, Unit 4 - Lessons 9, 14, 21 	<ul style="list-style-type: none"> • Math Expressions Student Activity Book 	<ul style="list-style-type: none"> • Math Expressions Assessments



Area: Geometry

Big Idea: Analyze, compare, create, and compose shapes.

PA/Common Core Standards	Assessment Anchors/ Eligible Content	Key Vocabulary	Learning Activities	Materials/ Resources/ Technology Tools	Common Summative Assessments/ Targeted Outcomes
Objective: 1: Analyze and compare two- and three-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts (e.g., number of sides and vertices/corners) and other attributes (e.g., having sides of equal length).					
• K.G.4		<ul style="list-style-type: none"> • analyze • compare • two-dimensional • three-dimensional • size 	<ul style="list-style-type: none"> • Unit 1 - Lesson 18, Unit 2 - lessons 13, 17, 20, Unit 3 - Lesson 21, Unit 4- Lessons 9, 14, 22 	<ul style="list-style-type: none"> • Math Expressions Student Activity Book 	<ul style="list-style-type: none"> • Math Expressions Assessments
Objective: 2: Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.					
• K.G.5		<ul style="list-style-type: none"> • model • shapes 	<ul style="list-style-type: none"> • Unit 1 - Lessons 8, 10, Unit 4 - lesson 9 	<ul style="list-style-type: none"> • Math Expressions Student Activity Book 	<ul style="list-style-type: none"> • Math Expressions Assessments
Objective: 3: Compose simple shapes to form larger shapes. For example, "can you join these two triangles with full sides touching to make a rectangle?"					
• K.G.6		<ul style="list-style-type: none"> • compose • shapes • join 	<ul style="list-style-type: none"> • Unit 3 - Lesson 9, Unit 4 - Lesson 21 	<ul style="list-style-type: none"> • Math Expressions Student Activity Book 	<ul style="list-style-type: none"> • Math Expressions Assessments