

**Kindergarten: Math Expressions Common Core
2020**

Little Chute
Mathematics
Grade K

Course Overview

In **Math Expressions**, teachers create an inquiry based environment and encourage constructive discussion. Students invent, question, model, represent and explore, but also learn and practice important math strategies. Through daily "Math Talk", students explain their methods and, in turn, become more fluent in them. Mathematics content and models connect and build across the grade levels in **Math Expressions** to provide a progression of teaching and learning that aligns precisely with the Common Core State Standards for Mathematics.
(155 days)

Scope and Sequence

Timeframe	Unit	Instructional Topics
27 Day(s)	Unit 1- Understanding Numbers 1-10	1.1: Literacy Connection 1.2: Preview and Pre-Assess 1.3: Counting and Cardinality 1-5 1.4: Adding, Subtracting, and Comparing Through 5 1.5: Show Numbers 1 Through 10 1.6: Practice Numbers 1 Through 10 1.7: Review and Assess
29 Day(s)	Unit 2- 5-Groups in Numbers 6-10	2.1: Literacy Connection 2.2: Preview and Pre-Assess 2.3: 5-Groups in Numbers 6 to 10 2.4: Addition and Subtraction Stories 2.5: Practice Numbers 1 Through 10, the + pattern 2.6: Numbers 1 Through 10, the - pattern 2.7: Review and Assess
33 Day(s)	Unit 3- Teen Numbers as Tens and Ones	3.1: Literacy Connection 3.2: Preview and Pre-Assess 3.3: Partners of 5 and 6 3.4: Classifying 3.5: Tens and Teen Numbers 3.6: Build Teen Numbers 3.7: Review and Assess
31 Day(s)	Unit 4- Partners, Problem Drawings, and Tens	4.1: Literacy Connections 4.2: Preview and Pre-Assess 4.3: Story Problems and Equations 4.4: Practice and Comparing

		<p>4.5: Equations and Teen Numbers 4.6: Equations of Partners 4.7: Review and Assess</p>
<p>21 Day(s)</p>	<p>Unit 5- Place Value Situations</p>	<p>5.1: Literacy Connection 5.2: Preview and Pre-Assess 5.3: More Partners of 10 5.4: Numbers 1 Through 20 5.5: More Teen Numbers and Partners 5.6: More Story Problems and Equations 5.7: Review and Assess</p>

UNIT 1: Understanding Numbers 1 Through 10

Duration of Unit: 27 Day(s)

Description of Unit: Children develop counting and cardinality skills for numbers 1-10. By using objects and making drawings they represent numbers and develop perceptual subitizing. Children learn to write the numbers 1-10. Addition and subtraction within five is introduced and numbers through 10 are compared. Children learn to identify circles, squares, and rectangles and use attributes to sort and compare these two-dimensional shapes.

Essential Questions and/or Enduring Understandings:

- 1.1: Literacy Connection
- 1.2: Preview and Pre-Assess
- 1.3: Counting and Cardinality 1-5
- 1.4: Adding, Subtracting, and Comparing Through 5
- 1.5: Show Numbers 1 Through 10
- 1.6: Practice Numbers 1 Through 10
- 1.7: Review and Assess

ESSENTIAL Standards	Topics	Learning Targets
	1.1	Students will participate in collaborative conversations with diverse partners about kindergarten math topics with scaffolded support from adults.
		Students will ask and answer questions in order to seek help, get information, or clarify something that is not understood.
		Students will add drawings or other visual displays to descriptions as desired to provide additional detail.
		Students will notice, when speaking, listening and/or writing, if calculations are repeated.
	1.2	Students will demonstrate and apply the basics of number sense.
		Students will take beginning inventory.
	1.3	Students will count objects in the classroom and in a counting book.

		Students will identify, order, and count numbers one (1) through five (5).
		Students will discuss number relationships and tell and model story problems.
		Students will identify from the number words, count, and order numbers one (1) through five (5).
		Students will identify, order, and count numbers one (1) through five (5) and draw 4 and 5 objects.
		Students will count, visualize, and draw one (1) through five (5) objects.
	1.4	Students will identify from a number word, count, and order the numbers 1 through 5, and draw 1 through 5 objects.
		Students will add and subtract orally to totals of two (2) and three (3).
		Students will describe circles.
		Students will add and subtract to five (5).
		Students will identify, order, and compare (two) numbers one (1) through five (5).
		Students will identify and classify rectangles by their attributes.
	1.5	Students will identify and order numbers 1 through 10, and count 1 through 10 objects.
		Students will compare two numbers.
		Students will identify, order, and count with numbers one (1) through ten (10).
		Students will write the numbers 1, 2, and 3
		Students will identify and order numbers 1 through 10, count 1 through 10 objects, and compare two numbers.
		Students will represent addition and subtraction with fingers.
	1.6	Students will identify, order, and count numbers one (1) through ten (10).
		Students will compare two numbers.

		Students will identify groups with 1 through 5 items.
		Students will count, write, and draw the numeral five (5).
		Students will identify groups of five (5).
		Students will identify, order, and compare (two) numbers one (1) through ten (10).
		Students will apply in a meaningful context.
		Students will reinforce mathematical practices to solve problems.
	1.7	Students will identify, order, and count numbers 1-10.
		Students will write numbers 1-5.
		Students will identify circles, squares, and rectangles.
NICE TO KNOW Standards		Learning Targets

UNIT 2: 5-Groups in Numbers 6-10

Duration of Unit: 29 Day(s)

Description of Unit: Children continue their study of numbers from 1-10 and simple shapes. They build on their knowledge of numbers 1 through 10 to understand the numbers 6-10 as composed of a 5-group and some ones. They explore number order, the +1 and -1 relationships, and partners for numbers 1-10. Children explore and use the attributes for triangles and hexagons.

Essential Questions and/or Enduring Understandings:

- 2.1: Literacy Connection
- 2.2: Preview and Pre-Assess
- 2.3: 5-Groups in Numbers 6 to 10
- 2.4: Addition and Subtraction Stories
- 2.5: Practice Numbers 1 Through 10, the + pattern
- 2.6: Numbers 1 Through 10, the - pattern
- 2.7: Review and Assess

ESSENTIAL Standards	Topics	Learning Targets
	2.1	Students will participate in collaborative conversations with diverse partners about kindergarten math topics with scaffolded support from adults.
		Students will ask and answer questions in order to seek help, get information, or clarify something that is not understood.
		Students will add drawings or other visual displays to descriptions as desired to provide additional detail.
		Students will notice, when speaking, listening and/or writing, if calculations are repeated.
	2.2	Students will demonstrate and apply prior knowledge of identifying, counting, ordering and writing numbers 1-10.
		Students will demonstrate and apply prior knowledge of addition and subtraction.
		Students will demonstrate and apply prior knowledge of triangles and hexagons.
	2.3	Students will find groups of 1 through 10 and identify 5-groups.

		Students will build concepts of and subitize numbers 1-10 using a Counting Mat.
		Students will identify from the number word, count, and order numbers one (1) through ten (10).
		Students will make the numbers 6 through 10 with 5-groups.
		Students will identify groups of 6 through 10 objects.
		Students will count out and make numbers 6 through 10 with 5-groups.
		Students will build concepts of and subitize numbers 1-10 using a Counting Mat.
		Students will act out addition and subtraction stories from family experiences.
		Students will draw 6 objects and write the numeral six (6).
	2.4	Students will create addition and subtraction stories.
		Students will count and order numbers through ten (10).
		Students will compare numbers 1 through 10 and identify if they are equal or not equal.
		Students will write and represent numbers one (1) through ten (10).
		Students will draw seven (7) objects and write the numeral seven (7).
		Students will order numbers one (1) through ten (10).
		Students will identify from the number word and order numbers 1-10.
		Students will count out and make groups of 6 through 10 with 5-groups.
		Students will act out addition and subtraction stories with partners.
		Students will write the number 10 and draw 10 objects.
	2.5	Students will create and solve addition and subtraction stories.
		Students will write the numeral 9 and draw 9 objects.

		Students will build concepts of numbers one (1) through ten (10).
		Students will explore the +1 relationship between numbers.
		Students will identify and classify triangles by their attributes.
		Students will explore the +1 relationship between numbers.
		Students will build concepts of number 1-10.
		Students will act out addition and subtraction stories with partners situations.
		Students will write the number 10 and draw 10 objects.
	2.6	Students will apply in a meaningful context.
		Students will reinforce mathematical practices to solve problems.
		Students will build concepts of number 1-10.
		Students will explore the -1 relationship between numbers.
		Students will identify and classify hexagons by their attributes.
		Students will write numbers one (1) through ten (10).
		Students will compare two numbers.
		Students will build concepts of numbers 1-10 and explore the -1 relationship between numbers.
		Students will order numbers through ten (10).
	2.7	Students will identify, count, and order numbers 1-10.
		Students will write numbers 0-10.
		Students will explore, explain, and represent addition and subtraction.
		Students will identify, describe and name triangles and hexagons.

NICE TO KNOW Standards		Learning Targets

UNIT 3: Teen Numbers as Tens and Ones

Duration of Unit: 33 Day(s)

Description of Unit: Children develop counting and cardinality skills for numbers 11-20 and explore teen numbers as tens and some more ones. They deepen their understanding of addition and subtraction, develop conceptual subitizing and fluency with 5, tell and solve addition and subtraction story problems, and show expressions that represent the problems. Children compose new shapes with two-dimensional shapes. They classify items according to attributes and compare the categories.

Essential Questions and/or Enduring Understandings:

- 3.1: Literacy Connection
- 3.2: Preview and Pre-Assess
- 3.3: Partners of 5 and 6
- 3.4: Classifying
- 3.5: Tens and Teen Numbers
- 3.6: Build Teen Numbers
- 3.7: Review and Assess

ESSENTIAL Standards	Topics	Learning Targets
	3.1	Students will participate in collaborative conversations with diverse partners about kindergarten math topics with scaffolded support from adults.
		Students will ask and answer questions in order to seek help, get information, or clarify something that is not understood.
		Students will add drawings or other visual displays to descriptions as desired to provide additional detail.
		Students will notice, when speaking, listening and/or writing, if calculations are repeated.

	3.2	Students will demonstrate and apply prior knowledge of identifying, counting, ordering and writing numbers 1-10.
		Students will demonstrate and apply prior knowledge of teen numbers.
		Students will demonstrate and apply prior classifying skills.
		Students will demonstrate and apply prior knowledge of addition and subtraction.
		Students will demonstrate and apply prior knowledge of identifying, composing and describing shapes.
	3.3	Students will find groups of 1 through 10 and identify partners.
		Students will identify 10-groups within teen numbers.
		Students will find partners of number two (2) through six (6).
		Students will tell and solve addition and subtraction story problems.
		Students will show tens in teen numbers.
		Students will draw numbers 6 through 10 using 5-groups.
		Students will find partners of numbers two (2) through six (6).
		Students will show teen numbers as a group of ten ones and extra ones.
		Students will tell and solve addition and subtraction stories.
		Students will show numbers six (6) through ten (10) using 5-groups.
		Students will make teen numbers using 5-groups.
		Students will compare 2-dimensional shapes.
	3.4	Students will classify using various attributes, and compare and order the categories by number.
		Students will show numbers six (6) through ten (10) using 5-groups.
		Students will tell and solve addition and subtraction stories.

		Students will classify using various attributes, and compare and order the categories by number.
		Students will use = and \neq signs.
	3.5	Students will practice using 5-groups and making teen numbers.
		Students will review using 5-groups.
		Students will use = and \neq signs.
		Students will show teen numbers as a group of ten ones and further ones.
		Students will match partners and totals for teen numbers.
		Students will tell and solve addition and subtraction stories.
		Students will show partners for numbers two (2) through seven (7).
		Students will show all partners for numbers two (2) through seven (7).
		Students will match partner expressions with teen numbers.
	3.6	Students will apply in a meaningful context.
		Students will reinforce mathematical practices to solve problems.
		Students will show a group of ten when building a teen number.
		Students will see and record for 5, 6, and 7.
		Students will show a group of ten when making a teen number.
		Students will match partners and totals for teen numbers.
		Students will make teen numbers with ten ones and further ones.
		Students will match partners and totals for teen numbers.
	3.7	Students will write numbers and show and compare numbers in groups and as 5 groups.

		Students will identify partners of numbers.
		Students will decompose teen numbers into a group of ten ones and extra ones.
		Students will add and subtract.
		Students will identify, compose, and describe shapes in relative positions.
		Students will classify, count, and sort shapes into categories.
NICE TO KNOW Standards		Learning Targets

UNIT 4: Partners, Problem Drawings, and Ten

Duration of Unit: 31 Day(s)

Description of Unit: Children continue to develop skills with addition and subtraction, telling story problems and representing them with drawings, expressions, and equations. Children decompose numbers within 10 by finding partners. Children identify, describe, and name three-dimensional shapes including cubes, cones, cylinders, and spheres, as well as describe relative positions of shapes.

Essential Questions and/or Enduring Understandings:

- 4.1: Literacy Connections
- 4.2: Preview and Pre-Assess
- 4.3: Story Problems and Equations
- 4.4: Practice and Comparing
- 4.5: Equations and Teen Numbers
- 4.6: Equations of Partners
- 4.7: Review and Assess

ESSENTIAL Standards	Topics	Learning Targets
	4.1	Students will participate in collaborative conversations with diverse partners about kindergarten math topics with scaffolded support from adults.
		Students will ask and answer questions in order to seek help, get information, or clarify something that is not understood.
		Students will add drawings or other visual displays to descriptions as desired to provide additional detail.
		Students will notice, when speaking, listening and/or writing, if calculations are repeated.
	4.2	Students will demonstrate prior knowledge and application of how to add and subtract within 10 by composing and decomposing numbers.
		Students will demonstrate prior knowledge and application of how to count objects and compare the number of objects in groups.
		Students will demonstrate prior knowledge and application of how to decompose teen numbers into a group of ten ones and extra ones.
		Students will explore and express addition and subtraction story problems in buying and selling experiences.
	4.3	Students will experience adding and subtracting situations in the real world.
		Students will define ways to sort objects.
		Students will identify partners of 6, 7, and 10.
		Students will show teen numbers as a group of ten ones and extra ones as 10 +1-digit numbers.
		Students will explore and express addition and subtraction story problems in buying and selling experiences.
	4.4	Students will show teen numbers as a group of ten ones and extra ones as 10+1-digit numbers.
		Students will decompose numbers up to 7 into pairs in more than one way and record the pairs.

		Students will use drawings and write expressions to solve addition and subtraction story problems.
		Students will use matching and counting as strategies for comparing the number of objects in a group.
		Students will find sets of partners for 10 and record sets of partners for 5-7 and 10.
	4.5	Students will describe and classify three-dimensional shapes.
		Students will tell, draw, and solve addition and subtraction story problems.
		Students will compare numbers of objects in a group using matching and counting strategies.
		Students will find partners of 10 in 5-groups.
		Students will record sets of partners for 10, 6, 5, 4, 3, and 2.
		Students will show teen numbers as a group of ten ones and extra ones as 10+1-digit numbers.
		Students will add within 6 through 10 and practice addition and subtraction fluency within.
		Students will find partners of 10 and review partners of 7, 8, and 9.
		Students will describe a cube and identify relative positions of shapes.
		Students will create and solve addition and subtraction story problems and equations for numbers within 6-10 and for fluency within 5.
	4.6	Students will model teen numbers as a group of ten ones and extra ones and numbers 1-19.
		Students will write equations for partners and show teen numbers as a group of 10 ones and extra ones.
		Students will solve addition equations within 5 and explore addition strategies.
		Students will find and write equations for partners.
		Students will solve subtraction equations within 6 to 10.
		Students will match pictures to numbers, compare groups, and practice addition within 10.
		Students will describe cones and cylinders and compare three-dimensional shapes.

		Students will identify and describe three-dimensional shapes, and describe shapes in relative positions.
	4.7	Students will count objects and compare the number of objects in groups.
		Students will add and subtract within 10 by composing and decomposing numbers.
		Students will decompose teen numbers into groups of ten ones and extra ones.
		Students will identify and describe three-dimensional shapes, and describe shapes in relative positions.
NICE TO KNOW Standards		Learning Targets

UNIT 5: Consolidation of Concepts

Duration of Unit: 35 Day(s)

Description of Unit: Children deepen their understanding of addition and subtraction story problems, analyzing problems and solutions. They compare groups and numerals. Children are introduced to and compare the measurable attributes of length, weight, and capacity.

Essential Questions and/or Enduring Understandings:

- 5.1: Literacy Connection
- 5.2: Preview and Pre-Assess
- 5.3: More Partners of 10
- 5.4: Numbers 1 Through 20
- 5.5: More Teen Numbers and Partners
- 5.6: More Story Problems and Equations
- 5.7: Review and Assess

ESSENTIAL Standards	Topics	Learning Targets
	5.1	Students will participate in collaborative conversations with diverse partners about kindergarten math topics with scaffolded support from adults.

		Students will ask and answer questions in order to seek help, get information, or clarify something that is not understood.
		Students will add drawings or other visual displays to descriptions as desired to provide additional detail.
		Students will notice, when speaking, listening and/or writing, if calculations are repeated.
	5.2	Students will demonstrate and apply prior knowledge of how to add and subtract within 10 by composing and decomposing numbers.
		Students will demonstrate and apply prior knowledge of how to count objects and compare the number of objects in groups.
		Students will demonstrate and apply prior knowledge of how to decompose teen numbers into a group of ten ones and extra ones.
		Students will demonstrate and apply prior knowledge of how to identify and compare measurable attributes.
	5.3	Students will create addition and subtraction story problems.
		Students will visualize and represent teen numbers as ten ones and extra ones.
		Students will create and count stars to make partners of 10 for a classroom display.
		Students will count the number of objects in a group through 20.
		Students will write equations to show partners of two and identify missing partners of 10.
		Students will count by tens to 100 and show teen numbers as a group of ten ones and extra ones.
		Students will tell, retell, and solve addition and subtraction story problems with drawings and equations.
	5.4	Students will show numbers 1-20 as a group of ten ones and more ones.
		Students will practice partners for numbers 7-9 and find the unknown partner when the total and one partner are known.
		Students will tell, retell, and write equations for addition and subtraction stories.

		Students will visualize teen numbers as ten ones and extra ones.
		Students will show numbers 1-20; show the teen numbers as groups of ten ones and extra ones.
		Students will find the unknown partner when the total and one partner are known.
	5.5	Students will find all the partners of 2, 3, 4, 5, 6, and 10.
		Students will view teen numbers as ten ones and extra ones, and practice finding 10-partners.
		Students will visualize teen numbers in sequence as ten ones and extra ones and find the unknown partner when the total and one partner are known.
		Students will identify partners of the numbers 6 through 9.
		Students will solve addition and subtraction story problems, and visualize teen numbers as ten ones and extra ones.
		Students will use the = and \neq signs in comparing.
		Students will visualize teen numbers as ten ones and extra ones, and find 10-partners.
		Students will relate 10-partner drawings to addition equations and find changes in the partners of 10.
		Students will count by ones and tens to 100.
		Students will find partners of 10 and write and discuss 7-partners.
		Students will equalize groups by adding, and finding partners of 7, 8, and 9.
	5.6	Students will show numbers 1-20; show the teen number as a group of ten ones and extra ones and further ones.
		Students will find the unknown partner when the total and one partner are known and find the total of two partners.
		Students will tell, retell, and solve addition and subtraction stories.
		Students will compare the number of objects in two groups and take away objects to make groups equal.

		Students will visualize teen numbers as ten ones and further ones.
		Students will compare the number of objects in groups and compare numbers.
		Students will visualize teen numbers as a group of ten ones and further ones.
		Students will tell, retell, and solve addition and subtraction stories.
		Students will show teen numbers as a group of ten ones and further ones.
		Students will compare the number of objects in groups and compare numbers.
		Students will compare two objects and identify which is longer or shorter.
		Students will compare two objects and identify which is taller or shorter.
		Students will compare two objects; and identify which is heavier or lighter.
		Students will compare two containers and identify which has more or less capacity.
		Students will practice solutions in various real world situations.
		Students will reinforce mathematical practices to solve problems.
	5.7	Students will count objects and compare the number of objects in groups.
		Students will add and subtract within 10 by composing and decomposing numbers.
		Students will decompose teen numbers into a group of ten ones and extra ones.
		Students will identify and compare measurable attributes.
NICE TO KNOW Standards		Learning Targets