KINDERGARTEN CURRICULUM MAP MATHEMATICS

OFFICE OF CURRICULUM AND INSTRUCTION



To: Kindergarten Teachers

From: Jodi Albers October 2, 2017

Kindergarten Math Expressions Curriculum Map Re:

Dear Teachers,

Date:

This is a draft of the Math Expressions curriculum map that correlates the Common Core State Standards in Mathematics. Please note: this is a draft. Your suggestions and feedback should be given to your Math Expressions Lead Teacher so appropriate changes can be made.

This document is divided into the following sections:

- Instructional Focus
- Mathematical Practices
- Scope and Sequence
- Curriculum Map

Instructional Focus

This summary provides a brief description of the critical areas of focus, required fluency for the grade level, major emphasis clusters, and examples of major within-grade dependencies.

The Common Core State Standards for Mathematics begin each grade level from kindergarten through eighth grade with a narrative explaining the Critical Areas for that grade level. The Critical Areas are designed to bring focus to the standards by outlining the essential mathematical ideas for each grade level.

Mathematical Practices

The Common Core State Standards for Mathematics define what students should understand and be able to do in their study of mathematics. The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. The Standards for Mathematical Practice are included first in this document because of their importance and influence in teaching practice.

Scope and Sequence

This table provides the unit sequence and pacing for Math Expressions.

Curriculum Map - By Unit

The curriculum map provides the alignment of the grade level Math Expressions units with state-adopted standards as well as unit specific key elements such as learning progressions, essential questions learning targets, and Assessments.

A special thank you to the Kindergarten Math Expressions Lead Teachers who created these documents for the Red Clay Consolidated School District.

Sincerely. Jodi Albers Red Clay Consolidated School District Department of Curriculum and Instruction (302) 552-3820 jodi.albers@redclay.k12.de.us

2017 - 2018 Math Expressions Lead Teachers

Kindergarten Team

Michelle Finegan, Richardson Park Elementary School Jackie Gallagher, Highlands Elementary School Christine Saggese, Cooke Elementary School Beth Ann Turner, Forest Oak Elementary School

First Grade Team

Samantha Ches, Shortlidge Academy Sara Edler, Marbrook Elementary School Brandy Wilkins, Lewis Dual Language Elementary School

Second Grade Team

Gabriele Adiarte, Mote Elementary School Sherri Brooks, Richey Elementary School Stephanie Fleetwood, Linden Hill Elementary School

Third Grade Team

Sarah Bloom, Brandywine Springs Elementary School Karen Cooper, North Star Elementary School Kathleen Gormley, Highlands Elementary School Kathryn Hudson, Cooke Elementary School Amy Starke, Heritage Elementary School

Fourth Grade Team

Amber Tos, Baltz Elementary School

Fifth Grade Team

Jennifer Greevy, Forest Oak Elementary School Erin McGinnley, Warner Elementary School Stacie Zdrojewski, Richey Elementary School

Instructional Focus

Critical Areas of Focus:

In Kindergarten, instructional time should focus on two critical areas: (1) representing and comparing whole numbers, initially with sets of objects; (2) describing shapes and space. More learning time in Kindergarten should be devoted to number than to other topics.

- 1. Students use numbers, including written numerals, to represent quantities and to solve quantitative problems, such as counting objects in a set; counting out a given number of objects; comparing sets or numerals; and modeling simple joining and separating situations with sets of objects, or eventually with equations such as 5 + 2 = 7 and 7 2 = 5. (Kindergarten students should see addition and subtraction equations, and student writing of equations in kindergarten is encouraged, but it is not required.) Students choose, combine, and apply effective strategies for answering quantitative questions, including quickly recognizing the cardinalities of small sets of objects, counting and producing sets of given sizes, counting the number of objects in combined sets, or counting the number of objects that remain in a set after some are taken away.
- 2. Students describe their physical world using geometric ideas (e.g., shape, orientation, spatial relations) and vocabulary. They identify, name, and describe basic two-dimensional shapes, such as squares, triangles, circles, rectangles, and hexagons, presented in a variety of ways (e.g., with different sizes and orientations), as well as three-dimensional shapes such as cubes, cones, cylinders, and spheres. They use basic shapes and spatial reasoning to model objects in their environment and to construct more complex shapes.

Required Fluency:

K.OA.5 Add and subtract within 5.

Major Emphasis Clusters:

Counting and Cardinality

- Know number names and count sequence.
- Count to tell the number of objects.
- Compare numbers.

Operations and Algebraic Thinking

• Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.

Number and Operations in Base Ten

• Work with numbers 11-19 to gain foundations for place value.

Standards for Mathematical Practices

The Standards for Mathematical Practice describe varieties of expertise that mathematics educators at all levels should seek to develop in their students. These practices rest on important "processes and proficiencies" with longstanding importance in mathematics education. The first of these are the NCTM process standards of problem solving, reasoning and proof, communication, representation, and connections. The second are the strands of mathematical proficiency specified in the National Research Council's report *Adding It Up*: adaptive reasoning, strategic competence, conceptual understanding (comprehension of mathematical concepts, operations and relations), procedural fluency (skill in carrying out procedures flexibly, accurately, efficiently and appropriately), and productive disposition (habitual inclination to see mathematics as sensible, useful, and worthwhile, coupled with a belief in diligence and one's own efficacy).

Connecting the Standards for Mathematical Practice to the Standards for Mathematical Content

The Standards for Mathematical Practice describe ways in which developing student practitioners of the discipline of mathematics increasingly ought to engage with the subject matter as they grow in mathematical maturity and expertise throughout the elementary, middle and high school years. Designers of curricula, assessments, and professional development should all attend to the need to connect the mathematical practices to mathematical content in mathematics instruction. The Standards for Mathematical Content are a balanced combination of procedure and understanding. Expectations that begin with the word "understand" are often especially good opportunities to connect the practices to the content. Students who lack understanding of a topic may rely on procedures too heavily. Without a flexible base from which to work, they may be less likely to consider analogous problems, represent problems coherently, justify conclusions, apply the mathematics to practical situations, use technology mindfully to work with the mathematics, explain the mathematics accurately to other students, step back for an overview, or deviate from a known procedure to find a shortcut. In short, a lack of understanding effectively prevents a student from engaging in the mathematical practices. In this respect, those content standards which set an expectation of understanding are potential "points of intersection" between the Standards for Mathematical Content and the Standards for Mathematical Practice. These points of intersection are intended to be weighted toward central and generative concepts in the school mathematics curriculum that most merit the time, resources, innovative energies, and focus necessary to qualitatively improve the curriculum, instruction, assessment, professional development, and student achievement in mathematics.

Standards for Mathematical Practice

1. Make sense of problems and persevere in solving them

Mathematically proficient students start by explaining to themselves the meaning of a problem and looking for entry points to its solution. They analyze givens, constraints, relationships, and goals. They make conjectures about the form and meaning of the solution and plan a solution pathway rather than simply jumping into a solution attempt. They consider analogous problems, and try special cases and simpler forms of the original problem in order to gain insight into its solution. They monitor and evaluate their progress and change course if necessary. Older students might, depending on the context of the problem, transform algebraic expressions or change the viewing window on their

graphing calculator to get the information they need. Mathematically proficient students can explain correspondences between equations, verbal descriptions, tables, and graphs or draw diagrams of important features and relationships, graph data, and search for regularity or trends. Younger students might rely on using concrete objects or pictures to help conceptualize and solve a problem. Mathematically proficient students check their answers to problems using a different method, and they continually ask themselves, "Does this make sense?" They can understand the approaches of others to solving complex problems and identify correspondences between different approaches.

2. Reason abstractly and quantitatively

Mathematically proficient students make sense of quantities and their relationships in problem situations. They bring two complementary abilities to bear on problems involving quantitative relationships: the ability to *decontextualize*—to abstract a given situation and represent it symbolically and manipulate the representing symbols as if they have a life of their own, without necessarily attending to their referents—and the ability to *contextualize*, to pause as needed during the manipulation process in order to probe into the referents for the symbols involved. Quantitative reasoning entails habits of creating a coherent representation of the problem at hand; considering the units involved; attending to the meaning of quantities, not just how to compute them; and knowing and flexibly using different properties of operations and objects.

3. Construct viable arguments and critique the reasoning of others.

Mathematically proficient students understand and use stated assumptions, definitions, and previously established results in constructing arguments. They make conjectures and build a logical progression of statements to explore the truth of their conjectures. They are able to analyze situations by breaking them into cases, and can recognize and use counterexamples. They justify their conclusions, communicate them to others, and respond to the arguments of others. They reason inductively about data, making plausible arguments that take into account the context from which the data arose. Mathematically proficient students are also able to compare the effectiveness of two plausible arguments, distinguish correct logic or reasoning from that which is flawed, and—if there is a flaw in an argument—explain what it is. Elementary students can construct arguments using concrete referents such as objects, drawings, diagrams, and actions. Such arguments can make sense and be correct, even though they are not generalized or made formal until later grades. Later, students learn to determine domains to which an argument applies. Students at all grades can listen or read the arguments of others, decide whether they make sense, and ask useful questions to clarify or improve the arguments.

4. Model with mathematics

Mathematically proficient students can apply the mathematics they know to solve problems arising in everyday life, society, and the workplace. In early grades, this might be as simple as writing an addition equation to describe a situation. In middle grades, a student might apply proportional reasoning to plan a school event or analyze a problem in the community. By high school, a student might use geometry to solve a design problem or use a function to describe how one quantity of interest depends on another. Mathematically proficient students who can apply what they know are comfortable making assumptions and approximations to simplify a complicated situation, realizing that these may need revision later. They are able to identify important quantities in a practical situation and map their relationships using such tools as diagrams, two-way tables, graphs, flowcharts and formulas. They can analyze those relationships mathematically to draw conclusions. They routinely interpret their mathematical results in the context of the situation and reflect on whether the results make sense, possibly improving the model if it has not served its purpose.

5. Use appropriate tools strategically

Mathematically proficient students consider the available tools when solving a mathematical problem. These tools might include pencil and paper, concrete models, a ruler, a protractor, a calculator, a spreadsheet, a computer algebra system, a statistical package, or dynamic geometry software. Proficient students are sufficiently familiar with tools appropriate for their grade or course to make sound decisions about when each of these tools might be helpful, recognizing both the insight to be gained and their limitations. For example, mathematically proficient high school students analyze graphs of functions and solutions generated using a graphing calculator. They detect possible errors by strategically using estimation and other mathematical knowledge. When making mathematical models, they know that technology can enable them to visualize the results of varying assumptions, explore consequences, and compare predictions with data. Mathematically proficient students at various grade levels are able to identify relevant external mathematical resources, such as digital content located on a website, and use them to pose or solve problems. They are able to use technological tools to explore and deepen their understanding of concepts.

6. Attend to precision

Mathematically proficient students try to communicate precisely to others. They try to use clear definitions in discussion with others and in their own reasoning. They state the meaning of the symbols they choose, including using the equal sign consistently and appropriately. They are careful about specifying units of measure, and labeling axes to clarify the correspondence with quantities in a problem. They calculate accurately and efficiently, express numerical answers with a degree of precision appropriate for the problem context. In the elementary grades, students give carefully formulated explanations to each other. By the time they reach high school they have learned to examine claims and make explicit use of definitions.

7. Look for and make use of structure

Mathematically proficient students look closely to discern a pattern or structure. Young students, for example, might notice that three and seven more is the same amount as seven and three more, or they may sort a collection of shapes according to how many sides the shapes have. Later, students will see 7×8 equals the well-remembered $7 \times 5 + 7 \times 3$, in preparation for learning about the distributive property. In the expression $x^2 + 9x + 14$, older students can see the 14 as 2×7 and the 9 as 2 + 7. They recognize the significance of an existing line in a geometric figure and can use the strategy of drawing an auxiliary line for solving problems. They also can step back for an overview and shift perspective. They can see complicated things, such as some algebraic expressions, as single objects or as being composed of several objects. For example, they can see $5 - 3(x - y)^2$ as 5 minus a positive number times a square and use that to realize that its value cannot be more than 5 for any real numbers x and y.

8. Look for and express regularity in repeated reasoning

Mathematically proficient students notice if calculations are repeated, and look both for general methods and for shortcuts. Upper elementary students might notice when dividing 25 by 11 that they are repeating the same calculations over and over again, and conclude they have a repeating decimal. By paying attention to the calculation of slope as they repeatedly check whether points are on the line through (1, 2) with slope 3, middle school students might abstract the equation (y - 2)/(x - 1) = 3. Noticing the regularity in the way terms cancel when expanding (x - 1)(x + 1), $(x - 1)(x^2 + x + 1)$, and $(x - 1)(x^3 + x^2 + x + 1)$ might lead them to the general formula for the sum of a geometric series. As they work to solve a problem, mathematically proficient students maintain oversight of the process, while attending to the details. They continually evaluate the reasonableness of their intermediate results.

Scope and Sequence

Date/	Linit/Dig Idea/Assessments	Davis / Daints
Formative or Summative	Unit/Big Idea/Assessments	Days/Points
August 29 21	Beginning of Year Pre-Test	
August 28-31	Input into DSC by September 15th, 2017	4 days
September 6 th – October 18 th	Unit 1 – Understanding Numbers 1-10	29 days
	Big Idea 1: Counting and Cardinality 1 – 5 (Lessons 1 - 6)	9 days
	Big Idea 2: Adding, Subtracting, and Comparing Through 5 (Lessons 7 - 10)	6 days
	Big Idea 3: Show Numbers 1 Through 10 (Lessons 11-14)	6 days
Formative Input by October 5, 2017	Lesson13: Circling Groups of Objects 1-5	12 points
	Big Idea 4: Practice Numbers 1 Through 10 (Lessons 15-18)	6 days
Formative Input by October 16, 2017	Lesson 15: Circling Groups of Objects that are More/Less	4 points
	Unit 1 Review	1 day
Summative	Unit 1 Assessment	1 day
October 24 th , 2017	Unit 1 Assessment – Input into DSC by October 24th, 2017	21 points
October 19th - December 8th	Unit 2 – 5-Groups in Numbers 6-10	30 days
	Big Idea 1: 5-Groups in Numbers 6 to 10 (Lessons 1 - 5)	7 days
Formative Input by October 27, 2017	Lesson 3: Family Math Stories with circle drawings	16 points
	Big Idea 2: Addition and Subtraction Stories (Lessons 6 – 10)	7 days
Formative Input by November 13, 2017	Lesson 9: Using 5 groups and total	8 points
	Big Idea 3: Practice Numbers 1 Through 10, the + Pattern (Lessons 11 - 15)	7 days
	Big Idea 4: Numbers 1 Through 10, the – Pattern (Lessons 16 – 20)	7 days
	Unit 2 Review	1 day
Summative	Unit 2 Assessment	1 day
December 15 th , 2017	Unit 2 Assessment – Input into DSC by December 15 th , 2017	18 points
December 11 th – February 5 th	Unit 3 – Teen Numbers as Tens and Ones	31 days
	Big Idea 1: Partners of 5 and 6 (Lessons 1 - 9)	12 days
	Big Idea 2: Classifying (Lessons 10 - 12)	4 days
	Big Idea 3: Tens in Teen Numbers (Lessons 13 - 17)	7 days
Formative Input by January 18, 2018	Lesson 13: Build teen Numbers	8 points
	Big Idea 4: Build Teen Numbers (Lessons 18 - 21)	6 days
Formative Input by January 31, 2018	Lesson 19: Drawing Teen Numbers When Given a Number	4 points
	Unit 3 Review	1 day

Summative	Unit 3 Assessment	1 day
February 9 th , 2018	Unit 3 Assessment – Input into DSC by February 9th, 2018	29 points
February 6 th – March 23 rd	Unit 4 – Partners, Problem Drawings, and Tens	32 days
	Big Idea 1: Story Problems and Equations (Lessons 1 - 4)	6 days
	Big Idea 2: Practice with Comparing (Lessons 5 - 8)	6 days
	Big Idea 3: Equations and Teen Numbers (Lessons 9 - 15)	10 days
Formative Input by March 7 th , 2018	Lesson 13: Partners	12 points
Formative Input by March 13th, 2018	Lesson 15: Addition & Subtraction Equations	12 points
	Big Idea 4: Equations for Partners (Lessons 16 - 22)	8 days
Formative Input by March 19th, 2018	Lesson 17: Addition & Subtraction Pictures	8 points
	Unit 4 Review	1 day
Summative	Unit 4 Assessment	1 day
March 29 th , 2018	Unit 4 Assessment – Input into DSC by March 29th, 2018	35 points
March 26 th - May 21 st	Unit 5 – Consolidation of Concepts	34 days
	Big Idea 1: More Partners of 10 (Lessons 1 - 4)	6 days
	Big Idea 2: Numbers 1 Through 20 (Lessons 5 - 7)	5 days
Formative Input by April 20th, 2018	Lesson 7: Addition & Subtraction Equations	12 points
	Big Idea 3: More Teen Numbers and Partners (Lessons 8 - 14)	10 days
	Big Idea 4: More Story Problems and Equations (Lessons 15 - 23)	11 days
Formative Input by May 10th, 2018	Lesson 16: Comparing Totals	8 points
	Unit 5 Review	1 day
Summative	Unit 5 Assessment	1 day
May 25 th 2018	Unit 5 Assessment – Input into DSC by May 25th 2018	34 points
EOY Assess	End of the Year Review	4 days
	End of Year Review	2 days
Summative	End of Year Assessment/Inventory	2 days
June 1 st , 2018	End of Year Assessment – Input into DSC by June 1st, 2018	37 points
	Total Days	164

Unit 1: Understanding Numbers 1 - 10

September 6 - October 18

Learning Progressions:

In my class, students will	Next year, my students will
Become fluent in saying the count sequence and count out a given number of objects.	Use counting-on methods in which a counting word represents a group of objects that are
 Recognize the cardinality of small groups (perceptual subitizing). 	added or subtracted.Add and subtract in comparing situations.
 Understand that the last number name said in counting tells the number of objects counted 	
Compare by matching	
Act out adding and subtracting situations with	
objects, their fingers, and math drawings	

Unit 1: Common Core State Standards:

Content:

CC.K.CC.1 - Know Number Names and the Count Sequence.

Count to 100 by ones and by tens

CC.K.CC.2 - Know Number Names and the Count Sequence.

Count forward beginning from a given number within the known sequence (instead of having to begin at 1).

CC.K.CC.3 - Know Number Names and the Count Sequence.

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).

CC.K.CC.4a - Count to Tell the Number of Objects.

Understand the relationship between the number and quantities; connect to cardinality.

a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.

CC.K.CC.4b - Count to Tell the Number of Objects.

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.

CC.K.CC.5 - Count to Tell the Number of Objects.

Count to answer "how many?" question about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects.

CC.K.CC.6 - Compare Numbers.

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.

CC.K.OA.1 - Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking From.

Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g. claps), acting out situations, verbal explanations, expressions, or equations.

CC.K.OA.2 - Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking From.

Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.

CC.K.MD.3 - Classify Objects and Count the Number of Objects in Each Category.

Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

CC.K.G.1 - Identify and Describe Shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

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*.

CC.K.G.2 - Identify and Describe Shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

Correctly name shapes regardless of their orientations or overall size.

CC.K.G.3 - Identify and Describe Shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").

CC.K.G.4 - Analyze, Compare, Create, and Compose Shapes.

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).

CC.K.G.5 - Analyze, Compare, Create, and Compose Shapes.

Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.

Practices:

- 1. Make sense of problems and persevere in solving them.
- 2. Reason abstractly and quantitatively.
- 3. Construct viable arguments and critique the reasoning of others.
- 4. Model with mathematics
- 5. Use appropriate tools strategically.
- 6. Attend to precision.
- 7. Look for and make use of structure.
- 8. Look for and express regularity in repeated reasoning

Beginning of the year Pre-test (Give Between: August 28th - September 5th, 2017) DSC: Input Beginning of the Year Inventory by September 15th, 2017

Unit 1: Big Idea 1: Counting and Cardinality 1 - 5 (Lessons 1-6)

Number of days: 9 days

Daily Routine:

- Counting Tens and Ones Using the 120 Poster, the Tens and Ones Flip Chart, and the Giant Number Cards

Quick Practice:

- Oral Counting 1-10
- Show Fingers 1-10
- Giant Number Cards 1-5
- Creative Movements and Sounds

Vocabulary: number, counting, Number Parade, one, two, three, four, five, arrangement, partners, group, scene, zero

Essential Questions:

- 1. How can you count objects in the classroom and in a counting book, through identifying the number word, ordering, and counting numbers 1 through 5?
- 2. In what ways can you discuss number relationships and tell model story problems, through counting, visualizing, and drawing 1 through 5 objects?

Learning Targets:

- Lesson 1 Count objects in the classroom and in a counting book.
- Lesson 2 Identify, order, and count numbers 1-5.
- Lesson 3 Discuss number relationships and tell and model story problems.
- Lesson 4 Identify from the number word, count, and order numbers 1-5.
- Lesson 5 Identify, order, and count numbers 1-5 and draw 4 and 5 objects.
- Lesson 6 Count, visualize, and draw 1-5 objects.

Common Core Standards: CC.K.CC.4a, CC.K.CC.4b

Unit 1: Big Idea 2: Adding, Subtracting, and Comparing Through 5 (Lessons 7 - 10)

Number of days: 6 days

Daily Routine:

- Counting Tens and Ones Using the 120 Poster, the Tens and Ones Flip Chart, and the Giant Number Cards

Ouick Practice:

- Oral Counting 1-10
- Show Fingers 1-10
- Giant Number Cards 1-5
- Creative Movements and Sounds

Vocabulary: partners, circle, flat shape, above, below, beside, behind, in front of, next to, compare, vertical, horizontal, taller, more, shorter, less, longer, left, right, rectangle, square, side, corner

Essential Questions:

- 1. How can you identify, classify, and contrast circles, squares, and rectangles?
- 2. How can you identify from a number word, count, and order the numbers 1 through 5?

- 3. How can you add and subtract to totals 2 and 3?
- 4. In which ways can you identify, order, and compare two numbers in numbers 1 through 5?

Learning Targets:

Lesson 7 - Identify from a number word, count, and order the numbers 1-5, and draw 1-5 objects; Add and subtract to totals of 2 and 3.

Lesson 8 - Describe circles; Add and subtract to 5

Lesson 9 - Identify, order, and compare (two) numbers 1-5.

Lesson 10 - Identify and classify squares and rectangles; Compare and classify circles

Common Core Standards: CC.K.CC.2, CC.K.CC.4a, CC.K.CC.4b, CC.K.CC.6, CC.K.OA.1, CC.K.MD.3, CC.K.G.1, CC.K.G.2, CC.K.G.5

Unit 1: Big Idea 3: Show Numbers 1 Through 10 (Lessons 11-14)

Number of days: 6 days

Daily Routine:

- Counting Tens and Ones Using the 120 Poster, the Tens and Ones Flip Chart, and the Giant Number Cards

Ouick Practice:

- Oral Counting 1-10
- Show Fingers 1-10
- Giant Number Cards 1-5
- Creative Movements and Sounds

Vocabulary: vertical, horizontal, more, fewer, pair, group

Essential Ouestions:

- 1. How can you identify, count, and order numbers 1 through 10?
- 2. How can you compare two numbers from 1 through 10 and write the numbers?
- 3. In which ways can you represent addition and subtraction with fingers?
- 4. How can you write the number 4 and identify groups of 4?

Learning Targets:

Lesson 11 - Identify and order numbers 1-10, and count 1-10 objects; Compare two numbers Lesson 12 - Identify, order, and count with numbers 1-10, Compare two numbers; Write the

numbers 1, 2, and 3

Lesson 13 - Identify and order numbers 1-10, count 1-10 objects, and compare two numbers

Lesson 14 - Represent addition and subtraction with fingers; Write the number 4 and identify groups of 4

Assessments: Lesson 13: Circling Groups of Objects 1-5 (12 points)

Common Core Standards: CC.K.CC.3, CC.K.CC.4a, CC.K.CC.4b, CC.K.CC.5, CC.K.CC.6, CC.K.OA.1, CC.K.OA.2

Unit 1: Big Idea 4: Practice Numbers 1 Through 10 (Lessons 15 - 18)

Number of days: 6 days

Daily Routine:

- Counting Tens and Ones Using the 120 Poster, the Tens and Ones Flip Chart, and the Giant Number Cards

Quick Practice: Oral Counting 1-10, Show Fingers 1-10, Giant Number Cards 1-5, Creative Movements and Sounds

Vocabulary: more, fewer, same, alike, different, vertical, horizontal, order, straight line, diagonal

Essential Questions:

- 1. How can you identify, count, and order numbers 1 through 10?
- 2. In which ways can you compare two numbers within 10?
- 3. How can you count, write, and draw the number 5 and identify groups of 5?
- 4. How can you solve a variety of real world problem in certain situations?

Learning Targets:

Lesson 15 - Identify, order, and count numbers 1-10; Compare two numbers; Identify groups with 1-5 items

Lesson 16 - Count, write, and draw the numeral 5; Identify groups of 5

Lesson 17 - Identify, order, and compare (two) numbers 1-10

Lesson 18 - Use the Common Core Content Standards and Practices in a variety of real world problem solving situations

Assessments: Lesson 15: Circling Groups of Objects that are More or Less (4 points)

Common Core Standards: CC.K.CC.1, CC.K.CC.3, CC.K.CC.4a, CC.K.CC.4b, CC.K.CC.5, CC.K.CC.6, CC.K.G.1, CC.K.G.2, CC.K.G.3, CC.K.G.4

DSC: Input Unit 1 Lesson 13 Formative by October 5th, 2017 (12 points)

Input Unit 1 Lesson 15 Formative by October 16th, 2017

Input Unit 1 Assessment by October 24th, 2017 (21 points)

Unit 2: 5-Groups in Numbers 6 - 10

October 19 - December 8

Learning Progressions:

Learning Frogressions.	
In my class, students will	Next year, my students will
 Use subitizing to see that numbers from 6-10 are composed of a 5-group and more ones. Order and identify numbers from 1-10 and use the information to create and answer questions about objects. Understand that a number is 1 greater than 	 Represent a situation or numerical problem with groups of objects, a drawing, fingers, or equations. Model the situation by comparing two addend groups or decomposing a total group.
the number before it and 1 less than the	Work toward fluency for addition and
number after it.	subtraction within 10.

Unit 2: Common Core State Standards

Content

CC.K.CC.1 - Know Number Names and the Count Sequence.

Count to 100 by ones and by tens

CC.K.CC.2 - Know Number Names and the Count Sequence.

Count forward beginning from a given number within the known sequence (instead of having to begin at 1).

CC.K.CC.3 - Know Number Names and the Count Sequence.

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).

CC.K.CC.4a - Count to Tell the Number of Objects.

Understand the relationship between the number and quantities; connect to cardinality.

a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.

CC.K.CC.4b - Count to Tell the Number of Objects.

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.

CC.K.CC.4c - Count to Tell the Number of Objects.

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.

CC.K.CC.5 - Count to Tell the Number of Objects.

Count to answer "how many?" question about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects.

CC.K.CC.6 - Compare Numbers.

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.

CC.K.CC.7 - Compare Numbers.

Compare two numbers between 1 and 10 presented as written numerals.

CC.K.OA.1 - Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking From.

Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g. claps), acting out situations, verbal explanations, expressions, or equations.

CC.K.OA.2 - Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking From.

Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.

CC.K.OA.3 - Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking From.

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).

CC.K.MD.3 - Classify Objects and Count the Number of Objects in Each Category.

Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

CC.K.G.1 - Identify and Describe Shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

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.

CC.K.G.2 - Identify and Describe Shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

Correctly name shapes regardless of their orientations or overall size.

CC.K.G.3 - Identify and Describe Shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").

CC.K.G.5 - Analyze, Compare, Create, and Compose Shapes.

Model shapes in the world by building shapes from components (e.g., sticks and clay balls) and drawing shapes.

Practices

- 1. Make sense of problems and persevere in solving them.
- 2. Reason abstractly and quantitatively.
- 3. Construct viable arguments and critique the reasoning of others.
- 4. Model with mathematics
- 5. Use appropriate tools strategically.
- 6. Attend to precision.
- 7. Look for and make use of structure.
- 8. Look for and express regularity in repeated reasoning

Unit 2: Big Idea 1: 5-Groups in Numbers 6 to 10 (Lessons 1-5)

Number of days: 7 days

Daily Routine:

- Counting Tens and Ones Using the 120 Poster, the Tens and Ones Flip Chart, and the Giant Number Cards

Quick Practice:

- Automatic Fingers 1-5
- Groups of 5 in Numbers 6-10
- Movements and Sounds Using Groups of 5
- Finger Freezes
- Say Numbers 11-20 in Order

Vocabulary: 5-group, more, fewer, how many, 5-Counter Strip, straight, curved, straight lines

Essential Questions:

- 1. How can you find groups of ten and identify 5 groups?
- 2. How can you identify from the number word, count and order numbers 1 through 10?
- 3. How can you act out addition and subtraction stories from family experiences?

Learning Targets:

Lesson 1 - Find groups of 1-10 and identify 5-groups; Build concepts of and subitize numbers 1-10 using a Counting Mat

Lesson 2 - Identify from the number word, count, and order numbers 1-10; Make the numbers 6-10 with 5-groups

Lesson 3 - Identify groups of 6-10 objects

Lesson 4 - Count out and make numbers 6-10 with 5-groups; Build concepts of and subitize numbers 1-10 using a Counting Mat

Lesson 5 - Act out addition and subtraction stories from family experiences; Draw 6 objects and write the numeral 6

Assessments: Lesson 3: Family Math Stories with Circle Drawings (16 points)

Common Core Standards: CC.K.CC.1, CC.K.CC.3, CC.K.CC.4a, CC.K.CC.5, CC.K.CC.6, CC.K.OA.1, CC.K.OA.2, CC.K.OA.3, CC.K.OA.5

Unit 2: Big Idea 2: Addition and Subtraction Stories (Lessons 6 - 10)

Number of days: 7 days

Daily Routine:

- Counting Tens and Ones Using the 120 Poster, the Tens and Ones Flip Chart, and the Giant Number Cards

Quick Practice:

- Automatic Fingers 1-5
- Groups of 5 in Numbers 6-10
- Movements and Sounds Using Groups of 5
- Finger Freezes
- Say Numbers 11-20 in Order

Vocabulary: before, after, equal, not equal, more, fewer, slanted, longer, shorter, partners, zero, teens, tens, ones, in total, left, altogether, plus sign, equal sign (=)

Essential Questions:

- 1. How can you count and order numbers 0 through 10?
- 2. In which ways can you compare numbers 1 through 10 and identify if they are equal or not?
- 3. How can you count out and make 6 through 10 with 5-groups?

Learning Targets:

Lesson 6 - Create addition and subtraction stories; Count and order numbers 1-10

Lesson 7 - Compare numbers 1-10 and identify if they are equal or not equal; Write and represent numbers 1-10

Lesson 8 - Draw 7 objects and write the numeral 7; Order numbers 1-10

Lesson 9 - Identify from the number word and order numbers 1-10; Count out and make 6-10 with 5-groups

Lesson 10 - Act out math stories for addition, subtraction, and partners; Draw 8 objects and write the numeral 8

Assessments: Lesson 9: Using 5 Groups and a Total (8 points)

Common Core Standards: CC.K.CC.1, CC.K.CC.2, CC.K.CC.3, CC.K.CC.4a, CC.K.CC.4b, CC.K.CC.5, CC.K.CC.6, CC.K.CC.7, CC.K.OA.1, CC.K.OA.2, CC.K.OA.3, CC.K.OA.4, CC.K.OA.5

Unit 2: Big Idea 3: Practice Numbers 1 Through 10, the + Pattern (Lessons 11-15)

Number of days: 7 days

Daily Routine:

- Counting Tens and Ones Using the 120 Poster, the Tens and Ones Flip Chart, and the Giant Number Cards

Quick Practice:

- Automatic Fingers 1-5
- Groups of 5 in Numbers 6-10
- Movements and Sounds Using Groups of 5
- Finger Freezes
- Say Numbers 11-20 in Order

Vocabulary: triangle, addition sign (+), equal sign (=), ten, ones, subtraction sign (-), hexagon

Essential Questions:

- 1. In which ways can you create and solve addition and subtraction stories?
- 2. How can you identify and classify triangles by their attributes?
- 3. In which ways can you explore the +1 relationship between numbers?

Learning Targets:

Lesson 11 - Create and solve addition and subtraction stories; Write the numeral 9 and draw 9 objects

Lesson 12 - Build concepts of numbers 1-10; Explore the +1 relationship between numbers

Lesson 13 - Identify and classify triangles by their attributes

Lesson 14 - Build concepts of numbers 1-10; Explore the +1 relationship between numbers

Lesson 15 - Act out addition, subtraction, and partners situations; Write the number 10 and draw 10 objects

Common Core Standards: CC.K.CC.1, CC.K.CC.2, CC.K.CC.3, CC.K.CC.4a, CC.K.CC.4b, CC.K.CC.4c, CC.K.CC.5, CC.K.OA.1, CC.K.OA.2, CC.K.OA.3, CC.K.OA.4, CC.K.OA.5, CC.K.MD.3, CC.K.G.1, CC.K.G.3, CC.K.G.5

Unit 2: Big Idea 4: Numbers 1 Through 10, the - Pattern (Lessons 16 - 20)

Number of days: 7 days

Daily Routine:

- Counting Tens and Ones Using the 120 Poster, the Tens and Ones Flip Chart, and the Giant Number Cards

Quick Practice:

- Automatic Fingers 1-5
- Groups of 5 in Numbers 6-10
- Movements and Sounds Using Groups of 5
- Finger Freezes
- Say Numbers 11-20 in Order

Vocabulary: similar, different, subtract, in order

Essential Questions:

- 1. How can you identify and classify hexagons by their attributes?
- 2. How can you identify, count, and order numbers 1 through 10?
- 3. In what ways can you compare two numbers?

Learning Targets:

Lesson 16 - Build concepts of numbers 1-10; Explore the -1 relationship between numbers

Lesson 17 - Identify and classify hexagons by their attributes

Lesson 18 - Write numbers 1-10; Compare two numbers

Lesson 19 - Build concepts of numbers 1-10 and explore the -1 relationship between numbers; Order numbers through 10

Lesson 20 - Use the Common Core Content Standards and Practices in a variety of real world problem solving situation

Common Core Standards: CC.K.CC.1, CC.K.CC.2, CC.K.CC.3, CC.K.CC.4a, CC.K.CC.4c, CC.K.CC.5, CC.K.CC.7, CC.K.OA.1, CC.K.OA.2, CC.K.OA.3, CC.K.OA.4, CC.K.MD.3, CC.K.G.1, CC.K.G.2, CC.K.G.3, CC.K.G.5

DSC: Input Unit 2 Lesson 3 Formative by October 27th, 2017 (16 points) Input Unit 2 Lesson 9 Formative by November 13th, 2017 (8 points) Input Unit 2 Assessment by December 15th, 2017 (18 points)

Unit 3: Teen Numbers as Tens and Ones

December 6 - January 30

Learning Progressions:

In my class, students will... Next year, my students will... • Recognize that a collection of objects is • See the first addend as embedded in the composed of two subcollections and combine total, using counting on as a strategy. their cardinalities to find the cardinality of the • Compare two quantities to find "How many collection (conceptual subitizing). more" or "How many less." • Identify which of two groups has or than (or • Represent problems with equations, called fewer than, or the same amount as) the other. situation equations. Act out adding and subtracting situations by • Learn to view ten ones as a unit called a representing quantities with objects, their ten and to view the numbers 11 to 19 as fingers, and math drawings. composed of 1 ten and some ones. • Compose and decompose numbers from 11 to • Organize and represent categorical data 19 into ten ones and some further ones (the and compare the categories. first step in understanding base-ten notation). Classify objects into categories and compare the categories to determine which has more or

Unit 3: Common Core State Standards

Content

fewer

CC.K.CC.1 - Know Number Names and the Count Sequence.

Count to 100 by ones and by tens

CC.K.CC.2 - Know Number Names and the Count Sequence.

Count forward beginning from a given number within the known sequence (instead of having to begin at 1).

CC.K.CC.3 - Know Number Names and the Count Sequence.

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).

CC.K.CC.4 - Count to Tell the Number of Objects.

Understand the relationship between numbers and quantities; connect counting to cardinality. CC.K.CC.4a - Count to Tell the Number of Objects.

Understand the relationship between the number and quantities; connect to cardinality. a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object.

CC.K.CC.4b - Count to Tell the Number of Objects.

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.

CC.K.CC.4c - Count to Tell the Number of Objects.

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.

CC.K.CC.5 - Count to Tell the Number of Objects.

Count to answer "how many?" question about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects.

CC.K.CC.6 - Compare Numbers.

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.

CC.K.CC.7 - Compare Numbers.

Compare two numbers between 1 and 10 presented as written numerals.

CC.K.OA.1 - Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking From.

Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g. claps), acting out situations, verbal explanations, expressions, or equations.

CC.K.OA.2 - Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking From.

Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.

CC.K.OA.3 - Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking From.

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).

CC.K.OA.5 - Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking From.

Fluently add and subtract within 5.

CC.K.NBT.1 - Work with Numbers 11-19 to Gain Foundations for Place Value Compose and decompose number 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 (e.g., 18=10+8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

CC.K.MD.3 - Classify Objects and Count the Number of Objects in Each Category.

Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

CC.K.G.1 - Identify and Describe Shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

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*.

CC.K.G.2 - Identify and Describe Shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

Correctly name shapes regardless of their orientations or overall size.

CC.K.G.4 - Analyze, Compare, Create, and Compose Shapes.

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).

CC.K.G.6 - Analyze, Compare, Create, and Compose Shapes.

Compose simple shapes to form larger shapes. For example, "Can you join these two triangles with full sides touching to make a rectangle?"

Practices

- 1. Make sense of problems and persevere in solving them.
- 2. Reason abstractly and quantitatively.
- 3. Construct viable arguments and critique the reasoning of others.
- 4. Model with mathematics
- 5. Use appropriate tools strategically.
- 6. Attend to precision.
- 7. Look for and make use of structure.
- 8. Look for and express regularity in repeated reasoning

Unit 3: Big Idea 1: Partners of 5 and 6 (Lessons 1-9)

Number of days: 12 days

Daily Routine:

- Counting Tens and Ones Using the 120 Poster, the Tens and Ones Flip Chart, and the Giant Number Cards

Quick Practice:

- 10 and 1 Make 11
- Fast Fingers 6-10
- Count By 1s From 20 Through 60

Vocabulary: add, subtract, unknown, teen number, 10-Counter Strip, switch the partners, doubles, 120 Poster, column, plus sign (+), minus sign (-), equal sign (=), 5-group, 10-group

Essential Ouestions:

- 1. How can you find groups of 1 through ten and identify partners.
- 2. In which ways can you identify 10-groups within teen numbers?
- 3. In which ways can you tell and solve addition and subtraction story problems?
- 4. How can you draw numbers 0 through 10 using 5-groups?
- 5. How can you make teen numbers using 5 groups?
- 6. How can you compose 2-dimensional shapes?

Learning Targets:

Lesson 1 - Find groups of 1-10 and identify partners

Lesson 2 - Identify 10-groups within teen numbers

Lesson 3 - Find partners of numbers 2-6

Lesson 4 - Tell and solve addition and subtraction story problems

Lesson 5 - Show tens in teen numbers; Draw numbers 6-10 using 5-groups

Lesson 6 - Find partners of numbers 2-6; Show teen numbers as a group of ten ones and extra ones

Common Core Standards: CC.K.CC.1, CC.K.CC.2, CC.K.CC.3, CC.K.CC.4a, CC.K.CC.4b, CC.K.CC.4c, CC.K.CC.5, CC.K.OA.1, CC.K.OA.2, CC.K.OA.3, CC.K.OA.5, CC.K.NBT.1, CC.K.G.2, CC.K.G.6,

Unit 3: Big Idea 2: Classifying (Lessons 10-12)

Number of days: 4 days

Daily Routine:

- Counting Tens and Ones Using the 120 Poster, the Tens and Ones Flip Chart, and the Giant Number Cards

Quick Practice:

- 10 and 1 Make 11
- Fast Fingers 6-10
- Count By 1s From 20 Through 60

Vocabulary: 5-group, rectangle, square, triangle, hexagon, flip, Sorting Cards, circle, sort, classify, more, fewer, equal sign (=), is not equal to sign (≠), attribute, sorting

Essential Questions:

- 1. In which ways can you classify using various attributes, and compare and order the categories by number?
- 2. In which ways can you use the = and ≠ signs?
- 3. How can you show numbers 6 through 10 using 5-groups?

Learning Targets:

Lesson 7 - Tell and solve addition and subtraction stories; Show numbers 6-10 using 5-groups

Lesson 8 - Make teen numbers using 5-groups

Lesson 9 - Compose 2-dimensional shapes

Lesson 10 - Classify using various attributes, and compare and order the categories by numbers

Lesson 11 - Tell and solve addition and subtraction stories; Show numbers 6-10 using 5-groups

Lesson 12 - Classify using various attributes, and compare and order the categories by number; Use = and \neq signs

Common Core Standards: CC.K.CC.2, CC.K.CC.3, CC.K.CC.4c, CC.K.CC.5, CC.K.CC.6, CC.K.CC.7, CC.K.OA.1, CC.K.OA.2, CC.K.OA.5, CC.K.MD.3, CC.K.G.1, CC.K.G.2

Unit 3: Big Idea 3: Tens in Teen Numbers (Lessons 13-17)

Number of days: 7 days

Daily Routine:

- Counting Tens and Ones Using the 120 Poster, the Tens and Ones Flip Chart, and the Giant Number Cards

Quick Practice:

- 10 and 1 Make 11
- Fast Fingers 6-10
- Count By 1s From 20 Through 60

Vocabulary: teen numbers, equal sign (=), is not equal to sign (≠), partners, total, just after, unknown

Essential Questions:

- 1. How can you practice using 5-groups and making teen numbers?
- 2. How can you show ten numbers as a group of ten ones and further ones?
- 3. How can you match partners and totals for teen numbers?
- 4. How can you tell and solve addition and subtraction stories, showing partners for numbers 2 through 7?
- 5. How can you match partner expressions with teen numbers?

Learning Targets:

Lesson 13 - Practice using 5-groups and making teen numbers

Lesson 14 - Review using 5-groups; Use = and ≠ signs

Lesson 15 - Show teen numbers as a group of ten ones and further ones; Match partners and totals for teen numbers

Lesson 16 - Tell and solve addition and subtraction stories; Show partners for numbers 2-7

Lesson 17 - Show all partners for numbers 2-7; Match partner expressions with teen numbers

Assessments: Lesson 13: Build teen Numbers (8 points)

Common Core Standards: CC.K.CC.3, CC.K.CC.4, CC.K.CC.5, CC.K.CC.7, CC.K.OA.1, CC.K.OA.2, CC.K.OA.3, CC.K.OA.5

Unit 3: Big Idea 4: Build Teen Numbers (Lessons 18-21)

Number of days: 6 days

Daily Routine:

- Counting Tens and Ones Using the 120 Poster, the Tens and Ones Flip Chart, and the Giant Number Cards

Ouick Practice:

- 10 and 1 Make 11
- Fast Fingers 6-10
- Count By 1s From 20 Through 60

Vocabulary: equal, total

Essential Questions:

- 1. How can you show a group of ten when building a teen number?
- 2. How can you see and record partners for 5, 6, and 7?
- 3. How can you match partners and totals for teen numbers?

Learning Targets:

Lessons 18 - Show a group of ten when building a teen number; See and record partners for 5, 6, and 7

Lesson 19 - Show a group of ten when making a teen number; Match partners and totals for teen numbers

Lesson 20 - Make teen numbers with ten ones and further ones; Match partners and totals for teen numbers

Lesson 21 - Use the Common Core Content Standards and Practices in a variety of real world problem solving situation

Assessments: Lesson 19: Drawing Teen Numbers When Given a Number (4 points)

Common Core Standards: CC.K.CC.3, CC.K.CC.4, CC.K.CC.4b, CC.K.CC.5, CC.K.OA.1, CC.K.OA.3, CC.K.OA.5, CC.K.NBT.1, CC.K.MD.3, CC.K.G.1, CC.K.G.2, CC.K.G.4

DSC: Input Unit 3 Lesson 13 Formative by January 18th, 2018 (8 points) Input Unit 3 Lesson 19 Formative by January 31st, 2018 (4 points) Input Unit 3 Assessment by February 9th, 2018 (29 points)



Unit 4: Partners, Problem Drawings, and Tens

January 31 - March 23

Learning Progressions:

In my class, students will...

- Recognize that a collection of objects is composed of two subcollections and combine their cardinalities to find the cardinality of the collection (conceptual subitizing).
- Identify which of two groups has more than (or fewer than, or the same amount as) the other.
- Act out adding and subtracting situations by representing quantities with objects, their fingers, and math drawings.
- Compose and decompose numbers from 11 to 19 into ten ones and some further ones (the first step in understanding base-ten notation).

Next year, my students will...

- See the first addend as embedded in the total, using counting on as a strategy.
- Compare two quantities to find "How many more" or "How many less."
- Represent problems with equations called situation equations.
- Learn to view ten ones as a unit called a ten and to view the numbers 11 to 19 as composed of 1 ten and some ones.

Unit 4: Common Core State Standards

Content

CC.K.CC.1 - Know Number Names and the Count Sequence.

Count to 100 by ones and by tens

CC.K.CC.2 - Know Number Names and the Count Sequence.

Count forward beginning from a given number within the known sequence (instead of having to begin at 1).

CC.K.CC.3 - Know Number Names and the Count Sequence.

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).

CC.K.CC.4a - Count to Tell the Number of Objects.

Understand the relationship between the number and quantities; connect to cardinality.

a. When counting objects, say the number names in the standard order, pairing each object with one and only one number name and each number name with one and only one object. CC.K.CC.4b - Count to Tell the Number of Objects.

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. CC.K.CC.4c - Count to Tell the Number of Objects.

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.

CC.K.CC.5 - Count to Tell the Number of Objects.

Count to answer "how many?" question about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects.

CC.K.CC.6 - Compare Numbers.

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.

CC.K.CC.7 - Compare Numbers.

Compare two numbers between 1 and 10 presented as written numerals.

CC.K.OA.1 - Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking From.

Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g. claps), acting out situations, verbal explanations, expressions, or equations.

CC.K.OA.2 - Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking From.

Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.

CC.K.OA.3 - Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking From.

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).

CC.K.OA.4 - Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking From.

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.

CC.K.OA.5 - Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking From.

Fluently add and subtract within 5.

CC.K.NBT.1 - Work with Numbers 11-19 to Gain Foundations for Place Value Compose and decompose number 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 (e.g., 18=10+8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

CC.K.MD.3 - Classify Objects and Count the Number of Objects in Each Category. Classify objects into given categories; count the numbers of objects in each category and sort the categories by count.

CC.K.G.1 - Identify and Describe Shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

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*.

CC.K.G.2 - Identify and Describe Shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

Correctly name shapes regardless of their orientations or overall size.

CC.K.G.3 - Identify and Describe Shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres).

Identify shapes as two-dimensional (lying in a plane, "flat") or three-dimensional ("solid").

CC.K.G.4 - Analyze, Compare, Create, and Compose Shapes.

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).

CC.K.G.6 - Analyze, Compare, Create, and Compose Shapes.

Compose simple shapes to form larger shapes. For example, "Can you join these two triangles with full sides touching to make a rectangle?"

Practices

- 1. Make sense of problems and persevere in solving them.
- 2. Reason abstractly and quantitatively.
- 3. Construct viable arguments and critique the reasoning of others.
- 4. Model with mathematics
- 5. Use appropriate tools strategically.
- 6. Attend to precision.
- 7. Look for and make use of structure.
- 8. Look for and express regularity in repeated reasoning

Unit 4: Big Idea 1: Story Problems and Equations (Lessons 1 - 4)

Number of days: 6 days

Daily Routine:

- Counting Tens and Ones Using the 120 Poster, the Tens and Ones Flip Chart, and the Giant Number Cards, Making Teen Numbers

Quick Practice:

- Repeated Quick Practice
- Practice + 1 Orally
- Fast Fingers for 10-19
- Patterns in 60-100
- Partners of 6
- Partners of 5
- Partners of 4
- Partners of 7
- Partners of 4, 5, 6, or 7
- Count to 100 by tens
- Practice -1 Orally

Vocabulary: story problem, partners, equal sign (=), addition sign (+), equation, addition, total, subtraction, subtraction sign (-), teen equation, matching, extra, greater/greater than, less/less than

Essential Questions:

- 1. In what ways can objects be sorted?
- 2. How can you identify partners of 6-10?

- 3. How can you show teen numbers as a group of ten ones and extra ones?
- 4. How can you explore and express addition and subtraction story problems?

Learning Targets:

Lesson 1 - Experience adding and subtracting situations in the real world; Define ways to sort objects

Lesson 2 - Identify partners of 6, 7, and 10

Lesson 3 - Show teen numbers as a group of ten ones and extra ones and as 10 + a 1-digit number

Lesson 4 - Explore and express addition and subtraction story problems in buying and selling experiences

Common Core Standards: CC.K.CC.3, CC.K.CC.4a, CC.K.CC.4b, CC.K.CC.4c, CC.K.OA.1, CC.K.OA.2, CC.K.OA.3, CC.K.OA.5, CC.K.NBT.1, CC.K.MD.3, CC.K.G.1

Unit 4: Big Idea 2: Practice with Comparing (Lessons 5 - 8)

Number of days: 6 days

Daily Routine:

- Counting Tens and Ones Using the 120 Poster, the Tens and Ones Flip Chart, and the Giant Number Cards, Making Teen Numbers

Quick Practice:

- Repeated Quick Practice
- Practice + 1 Orally
- Fast Fingers for 10-19
- Patterns in 60-100
- Partners of 6
- Partners of 5
- Partners of 4
- Partners of 7
- Partners of 4, 5, 6, or 7
- Count to 100 by tens
- Practice -1 Orally

Vocabulary: teen equation, partner, unknown partner, Tiny Tumbler, Math Mountain, three-dimensional, shape, solid shape, sphere, roll, stack, addition, subtraction, fewer, more, greater than, less than, 5-frame, equation, add, equal, equal sign (=), addition sign (+)

Essential Questions:

- 1. In what ways can you show teen numbers as a group of ten ones and extra ones?
- 2. How can you decompose numbers up to 7 into pairs in more than one way and record the pairs?
- 3. How can you find and record sets of partners for 10?
- 4. How can you use drawings and write expressions to solve addition and subtraction story problems?

Learning Targets:

Lesson 5 - Show teen numbers as a group of ten ones and extra ones and as 10 + a 1-digit number; Decompose numbers up to 7 into pairs in more than one way and record the pairs

Lesson 6 - Use drawings and write expressions to solve addition and subtraction story problems; Use matching and counting as strategies for comparing the number of objects in groups

Lesson 7 - Show teen numbers as a group of ten ones and extra ones and as 10 + a 1-digit number; Decompose numbers up to 7 into pairs in more than one way and record the pairs

Lesson 8 - Find sets of partners for 10; Record sets of partners for 5-7 and 10

Common Core Standards: CC.K.CC.3, CC.K.CC.4, CC.K.CC.4c, CC.K.CC.5, CC.K.CC.6, CC.K.CC.7, CC.K.OA.1, CC.K.OA.2, CC.K.OA.3, CC.K.OA.4, CC.K.NBT.1

Unit 4: Big Idea 3: Equations and Teen Numbers (Lessons 9 - 15)

Number of days: 10 days

Daily Routine:

- Counting Tens and Ones Using the 120 Poster, the Tens and Ones Flip Chart, and the Giant Number Cards, Making Teen Numbers

Ouick Practice:

- Repeated Quick Practice
- Practice + 1 Orally
- Fast Fingers for 10-19
- Patterns in 60-100
- Partners of 6
- Partners of 5
- Partners of 4
- Partners of 7
- Partners of 4, 5, 6, or 7
- Count to 100 by tens
- Practice -1 Orally

Vocabulary: 5-frame, Tiny Tumbler, Math Mountain, cube, above, below, in front of, behind, addition sign (+), subtraction sign (-), add, teen numbers, equation, partner equation

Essential Questions:

- 1. How can you compare numbers of objects in a group using matching and counting strategies?
- 2. How can you identify and record partners of 2-5; How can you find and record partners of 6-10 using 5-groups?
- 3. How can you show teen numbers as a group of ten ones and extra ones, add within 6-10, and practice addition and subtraction fluency within 5?
- 4. How can you tell, draw, and solve addition and subtraction story problems for numbers from 6-10?
- 5. How can you describe and classify three-dimensional shapes?

Learning Targets:

Lesson 9 - Describe and classify three-dimensional shapes

Lesson 10 - Tell, draw, and solve addition and subtraction story problems; Compare numbers of objects in a group using matching and counting strategies

Lesson 11 - Find partners of 10 in 5-groups; Record sets of partners for 10, 6, 5, 4, 3, and 2

Lesson 12 - Show teen numbers as a group of ten ones and extra ones and as 10 and a 1-digit number; Add within 6-10 and practice addition and subtraction fluency within 5

Lesson 13 - Find partners of 10 and review partners of 7, 8, and 9

Lesson 14 - Describe a cube and identify relative positions of shapes

Lesson 15 - Create and solve addition and subtraction story problems and equations for numbers 6-10 and for fluency within 5; Order numbers 1-20

Assessments: Lesson 13: Partners (12 points)

Lesson 15: Addition & Subtraction Equations (12 points)

Common Core Standards: CC.K.CC.2, CC.K.CC.4a, CC.K.CC.4b, CC.K.CC.4c, CC.K.CC.6, CC.K.CC.7, CC.K.OA.1, CC.K.OA.2, CC.K.OA.3, CC.K.OA.4, CC.K.OA.5, CC.K.NBT.1, CC.K.MD.3, CC.K.G.1, CC.K.G.2, CC.K.G.3, CC.K.G.4

Unit 4: Big Idea 4: Equations for Partners (Lessons 16 - 22)

Number of days: 8 days

Daily Routine:

- Counting Tens and Ones Using the 120 Poster, the Tens and Ones Flip Chart, and the Giant Number Cards, Making Teen Numbers

Quick Practice:

- Repeated Quick Practice
- Practice + 1 Orally
- Fast Fingers for 10-19
- Patterns in 60-100
- Partners of 6
- Partners of 5
- Partners of 4
- Partners of 7
- Partners of 4, 5, 6, or 7
- Count to 100 by tens
- Practice -1 Orally

Vocabulary: partners, teen number, cone, cylinder

Essential Questions:

- 1. In what ways can you model teen numbers as a group of ten ones and extra ones, and order numbers 1-19?
- 2. In what ways can you write equations for partners and solve addition equations within 5?
- 3. In what ways can you solve subtraction equations within 6 to 10?
- 4. How can you match pictures to numbers, compare groups, and practice addition within 10?
- 5. How can you identify and describe cones and cylinders and compose three-dimensional shapes?

Learning Targets:

Lesson 16 - Model teen numbers as a group of ten ones and extra ones and order numbers 1-19

Lesson 17 - Solve addition equations within 5 and explore addition strategies

Lesson 18 - Write equations for partners; Show teen numbers as a group of ten ones and extra ones

Lesson 19 - Find and equations for partners; Solve subtraction equations within 6-10

Lesson 20 - Model teen numbers as a group of ten ones and extra ones; Match pictures to numbers, compare groups, and practice addition within 10

Lesson 21 - Describe cones and cylinders and compose three-dimensional shapes

Lesson 22 - Use the Common Core Content Standards and Practices in a variety of real world problem solving situations

Assessments: Lesson 17: Addition & Subtraction pictures (8 points)

Common Core Standards: CC.K.CC.1, CC.K.CC.2, CC.K.CC.3, CC.K.CC.4a, CC.K.CC.4b,

CC.K.CC.5, CC.K.CC.6, CC.K.CC.7, CC.K.OA.1, CC.K.OA.3, CC.K.OA.4, CC.K.OA.5, CC.K.NBT.1,

CC.K.MD.3, CC.K.G.1, CC.K.G.2, CC.K.G.3, CC.K.G.4, CC.K.G.6

DSC: Input Unit 4 Lesson 13 Formative by March 7th, 2018 (12 points)

Input Unit 4 Lesson 15 Formative by March 13th, 2018 (12 points)

Input Unit 4 Lesson 17 Formative by March 19th, 2018 (8 points)

Input Unit 4 Assessment by March 29th, 2018 (35 points)



Unit 5: Consolidation of Concepts

March 26 - May 21

Learning Progressions:

In my class, students will	Next year, my students will
 Create and solve story problems and make drawings or write equations to represent problem situations. Identify all partners of numbers from 2-10 and teen numbers and write addition equations to represent the partners. Achieve fluency adding and subtracting within 5. 	 Represent a situation or numerical problem with groups of objects, a drawing, or fingers. Model the situation by composing two addend groups or decomposing a total group. Use subitizing with 5-groups to omit the counting of one addend. Work toward fluency for addition and
	subtraction within 10.

Unit 5: Common Core State Standards

Content

CC.K.CC.1 - Know Number Names and the Count Sequence.

Count to 100 by ones and by tens

CC.K.CC.2 - Know Number Names and the Count Sequence.

Count forward beginning from a given number within the known sequence (instead of having to begin at 1).

CC.K.CC.3 - Know Number Names and the Count Sequence.

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).

CC.K.CC.4 - Count to Tell the Number of Objects

Understand the relationship between numbers and quantities; connect counting to cardinality.

CC.K.CC.4c - Count to Tell the Number of Objects.

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.

CC.K.CC.5 - Count to Tell the Number of Objects.

Count to answer "how many?" question about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration; given a number from 1-20, count out that many objects.

CC.K.CC.6 - Compare Numbers.

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.

CC.K.CC.7 - Compare Numbers.

Compare two numbers between 1 and 10 presented as written numerals.

CC.K.OA.1 - Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking From.

Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g. claps), acting out situations, verbal explanations, expressions, or equations.

CC.K.OA.2 - Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking From.

Solve addition and subtraction word problems, and add and subtract within 10, e.g., by using objects or drawings to represent the problem.

CC.K.OA.3 - Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking From.

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).

CC.K.OA.4 - Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking From.

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.

CC.K.OA.5 - Understand Addition as Putting Together and Adding to, and Understand Subtraction as Taking Apart and Taking From.

Fluently add and subtract within 5.

CC.K.NBT.1 - Work with Numbers 11-19 to Gain Foundations for Place Value Compose and decompose number 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 (e.g., 18=10+8); understand that these numbers are composed of ten ones and one, two, three, four, five, six, seven, eight, or nine ones.

CC.K.MD.1 - Describe and Compare Measurable Attributes.

Describe measurable attributes of objects, such as length or weight. Describe several measurable attributes of a single object.

CC.K.MD.2 - Describe and Compare Measurable Attributes.

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.

Practices

- 1. Make sense of problems and persevere in solving them.
- 2. Reason abstractly and quantitatively.
- 3. Construct viable arguments and critique the reasoning of others.
- 4. Model with mathematics
- 5. Use appropriate tools strategically.
- 6. Attend to precision.
- 7. Look for and make use of structure.
- 8. Look for and express regularity in repeated reasoning

Unit 5: Big Idea 1: More Partners of 10 (Lessons 1 - 4)

Number of days: 6 days

Daily Routine:

- Counting Tens and Ones Using the 120 Poster, the Tens and Ones Flip Chart, and the Giant Number Cards, Making Teen Numbers

Quick Practice:

- - 1 Orally
- Count to 100 by tens
- Partner Peek: Tell the Unknown Partner
- Count to 100 by Tens and Tell How Many
- Say Groups of 10 and Decade Numbers (and Reverse)
- The Partner Peek on the 10-Partner Showcase

Vocabulary: partners, addition, subtraction, teen number(s), big, small, decade numbers, ten, one, equation

Essential Ouestions:

- 1. How can you create addition and subtraction story problems through visualizing and representing teen numbers as ten ones and extra ones?
- 2. How can you count the number of objects in a group through 20?
- 3. In which ways can you tell, retell, and solve addition and subtraction story problems with drawings and equations?
- 4. How can you write equations to show partners of 10 and identify an unknown partner of 10?
- 5. In which ways can you show numbers 1-20 as a group of ten ones and more ones and find the unknown partner when the total and one partner are known?

Learning Targets:

Lesson 1 - Create addition and subtraction story problems; Visualize and represent teen numbers as ten ones and extra ones

Lesson 2 - Create and count stars to make partners of 10 for a classroom display; Count the number of objects in a group through 20

Lesson 3 - Write equations to show partners of 10 and identify an unknown partner of 10; Count by tens to 100 and show teen numbers as a group of ten ones and extra ones

Lesson 4 - Tell, retell, and solve addition and subtraction story problems with drawings and equations; Visualize teen numbers as 10 (two 5-groups) and extra ones

Lesson 5 - Show numbers 1-20 as a group of ten ones and more ones; Practice partners for numbers 7-9, and find the unknown partner when the total and one partner are known

Common Core Standards: CC.K.CC.1, CC.K.CC.3, CC.K.CC.5, CC.K.CC.7, CC.K.OA.2, CC.K.OA.3, CC.K.OA.4, CC.K.OA.5, CC.K.NBT.1

Unit 5: Big Idea 2: Numbers 1 Through 20 (Lessons 5 - 7)

Number of days: 5 days

Daily Routine:

- Counting Tens and Ones Using the 120 Poster, the Tens and Ones Flip Chart, and the Giant Number Cards, Making Teen Numbers

Quick Practice:

- - 1 Orally
- Count to 100 by tens
- Partner Peek: Tell the Unknown Partner
- Count to 100 by Tens and Tell How Many
- Say Groups of 10 and Decade Numbers (and Reverse)
- The Partner Peek on the 10-Partner Showcase

Vocabulary: total, ten, teen number, equation, partner, Tiny Tumblers, Math Mountain, known partner, unknown partner, equal sign (=), is not equal to sign (≠), equal, unequal, extra ones

Essential Questions:

- 1. How can you create addition and subtraction story problems through visualizing and representing teen numbers as ten ones and extra ones?
- 2. In which ways can you show numbers 1-20 as a group of ten ones and more ones and find the unknown partner when the total and one partner are known?

Learning Targets:

Lesson 6 - Tell, retell, and write equations for addition and subtraction stories; Visualize teen numbers as ten ones and extra ones

Lesson 7 - Show numbers 1-20; show the teen numbers as a group of ten ones and further ones; Find the unknown partner when the total and one partner are known

Lesson 8 - Find all the partners of 2, 3, 4, 5, 6, and 10; View teen numbers as ten ones and extra ones, and practice finding 10-partners

Lesson 9 - Visualize teen numbers in sequence as ten ones and extra ones and find the unknown partner when the total and one partner are known; Identify partners of the numbers 6-9 Lesson 10 - Solve addition and subtraction story problems, and visualize teen numbers as ten ones and extra ones; Use = and ≠ signs in comparing

Lesson 11 - Visualize teen numbers as ten ones and extra ones, and find 10-partners

Assessments: Lesson 7: Addition & Subtraction Equations (12 points)

Common Core Standards: CC.K.CC.1, CC.K.CC.3, CC.K.CC.4, CC.K.CC.4c, CC.K.CC.5, CC.K.OA.1, CC.K.OA.2, CC.K.OA.3, CC.K.OA.4, CC.K.OA.5, CC.K.NBT.1

Unit 5: Big Idea 3: More Teen Numbers and Partners (Lessons 8 - 14)

Number of days: 10 days

Daily Routine:

- Counting Tens and Ones Using the 120 Poster, the Tens and Ones Flip Chart, and the Giant Number Cards, Making Teen Numbers

Quick Practice:

- - 1 Orally
- Count to 100 by tens
- Partner Peek: Tell the Unknown Partner
- Count to 100 by Tens and Tell How Many
- Say Groups of 10 and Decade Numbers (and Reverse)
- The Partner Peek on the 10-Partner Showcase

Vocabulary: rectangle, one hundred, more, less, equal, unequal, partner, total

Essential Questions:

1. How can you find all the partners of 2, 3, 4, 5, 6, and 10?

- 2. How can you view teen numbers as ten ones and extra ones and practice finding 10-partners?
- 3. In which ways can you visualize teen numbers in sequence as ten ones and extra ones and find the unknown partner when the total and one partner are known?
- 4. How can you identify the partners the numbers of 6 through 9?
- 5. In which ways can you solve addition and subtraction story problems and visualize teen numbers as ten ones and extra ones, using the = and not= signs in comparing?
- 6. How can you relate 10-partner drawings to addition equations and find changes in partners of ten?
- 7. How can you count to 100 by ones and tens?
- 8. How can you equalize groups adding, and find partners of 7, 8, and 9?
- 9. How can you show 1-20 as a group of ten ones and further ones?
- 10. In which ways can you find the unknown partner when the total and one partner are known and find the total of two partners?

Learning Targets:

Lesson 12 - Relate 10-partner drawings to addition equations and find changes in the partners of 10

Lesson 13 - Count by ones and tens to 100; Find partners of 10 and write and discuss 7-partners

Lesson 14 - Equalize groups by adding, and find partners of 7, 8, and 9

Lesson 15 - Show numbers 1-20; show the teen numbers as a group of ten ones and further ones; Find the unknown partner when the total and one partner are known and find the total of two partners

Common Core Standards: CC.K.CC.1, CC.K.CC.2, CC.K.CC.3, CC.K.CC.5, CC.K.OA.1, CC.K.OA.2, CC.K.OA.3, CC.K.OA.4, CC.K.OA.5, CC.K.NBT.1

Unit 5: Big Idea 4: More Story Problems and Equations (Lessons 15 - 23)

Number of days: 11 days

Daily Routine:

- Counting Tens and Ones Using the 120 Poster, the Tens and Ones Flip Chart, and the Giant Number Cards, Making Teen Numbers

Quick Practice:

- - 1 Orally
- Count to 100 by tens
- Partner Peek: Tell the Unknown Partner
- Count to 100 by Tens and Tell How Many
- Say Groups of 10 and Decade Numbers (and Reverse)
- The Partner Peek on the 10-Partner Showcase

Vocabulary: add, subtract, greater than, less than, equal, greater, less, teen number

Essential Ouestions:

- 1. How can you show numbers 1-20?
- 2. In which ways can you find the unknown partner when the total and one partner are known and find total of two partners?
- 3. How can you compare the numbers of objects in two groups, and take away objects to make groups equal?
- 4. How can you visualize teen numbers as a group of ten ones and further ones?

- 5. In which ways can you tell, retell, and solve addition and subtraction stories?
- 6. How can you compare two objects and tell which is heavier or lighter?
- 7. How can you compare two containers and identify which has more or less capacity?

Learning Targets:

Lesson 16 - Tell, retell, and solve addition and subtraction stories; Compare the number of objects in two groups, and take away objects to make groups equal

Lesson 17 - Visualize teen numbers as ten ones and further ones; Compare the number of objects in groups and compare numbers

Lesson 18 - Visualize teen numbers as a group of ten ones and further ones

Lesson 19 - Tell, retell, and solve addition and subtraction stories; Show teen numbers as a group of ten ones and further ones

Lesson 20 - Compare the number of objects in groups and compare numbers; Visualize teen numbers as ten ones and extra ones

Lesson 21 - Compare two objects and identify which is longer or shorter; Compare two objects and identify which is taller or shorter

Lesson 22 - Compare two objects and identify which is heavier or lighter; Compare two containers and identify which has more or less capacity

Lesson 23 - Apply mathematical concepts and skills in meaningful contexts; Reinforce the Common Core Mathematical Content Standards and Mathematical Practices with a variety of problem-solving situations.

Assessments: Lesson 16- Comparing Totals (8 points)

Common Core Standards: CC.K.CC.3, CC.K.CC.4, CC.K.CC.4c, CC.K.CC.5, CC.K.CC.6, CC.K.CC.7, CC.K.OA.1, CC.K.OA.2, CC.K.OA.3, CC.K.OA.4, CC.K.OA.5, CC.K.NBT.1, CC.K.MD.1, CC.K.MD.2

DSC Assessments:

Input Unit 5 Lesson 7 Formative by April 20th, 2018 (12 points)

Input Unit 5 Lesson 16 Formative by May 10th, 2018 (8 points)

Input Unit 5 Assessment by May 25th, 2018 (34 points)

Input End of Year Assessment by June 1st, 2018 (37 points)