Office of Curriculum & Instruction
2019-2020 Mathematics Curriculum Guide

Newcomers Academy

Grade K Mathematics

Pacing Guide

2019-2020

Math in Focus: Chapter 1: Numbers to 5

Tasks Lessons 1.1-1.6	**Focus Standards:** K.CC.3, K.CC.4a, K.CC.4b, K.CC.4c, K.CC.5 **Additional Standards:** K.MD.1, K.MD.2, K.MD.3

Tasks:

MIF Performance Tasks:

Chapter 1 Student Pages Chapter 1 Teacher Pages

Additional Tasks:

Counting Overview

Counting numbers from 0 - 5 or 5-10

Objects can be Sorted and Counted

Connecting Numbers to Numerals

Rote Counting to 10

The last Number Said

Using a Counting Strip or Number Train

Additional Skills, Strategies, and Concepts:

- *In order to understand that each successive number name refers to a quantity that is one larger, students should have experience counting objects, placing one more object in the group at a time. For example, using cubes, the student should count the existing group, and then place another cube in the set. Some students may need to re-count from one, but the goal is that they would count on from the existing number of cubes. S/he should continue placing one more cube at a time and identify the total number in order to see that the counting sequence results in a quantity that is one larger each time one more cube is placed in the group

- *Draw their own examples of sets and determine the size of each set.

- Incorporate a 5 frame and number line as students are working on counting and making sets up to 5.

	No- Mess Finger Painting: Fill sealable bags with just enough paint or hair gel to form an even layer when laid flat. Children use the bag like a piece of paper, drawing with their fingers or a q-tip to make strokes or numbers by displacing the paint or hair gel. Place the bag on a contrasting sheet of paper to achieve the most visible results. Then "erase" and start over.
	Shaving Cream Fun! Children use their fingers to form strokes or numbers in a small amount of shaving cream in a tray or even just on the table or dark piece of construction paper.

Math in Focus: Chapter 2: Numbers to 10	
Tasks Lessons 2.1- 2.6	**Focus Standards:** K.CC.2, K.CC.3, K.CC.4a, K.CC.4b, K.CC.4c, K.CC.5, K.CC.6 **Additional Standards:** K.MD.1, K.MD.2

Tasks:

MIF Performance Tasks:

Chapter 2 Student Pages Chapter 2 Teacher Pages

Additional Tasks:

Counting numbers from 0 - 5 or 5-10

Connecting Counting to Cardinality

Organizing a Collection

Counting Objects

Connecting Numbers to Numerals

Identifying Numerals

Racing Numerals

Additional Skills, Strategies, and Concepts:

- Students can draw their own examples of sets and determine the size of each set.
- Develop an understanding of inclusion based on understanding that numbers build on by exactly one each time and are nested inside of each other and that the number grows by one each count. For example, 6 is inside of 7 or 7 is 6 and one more. If you remove an object it goes back to 6.
- Incorporate a 10 frame and number line as students are working on counting and making sets up to 10.

Using a Counting Strip

Counting Mat

Math in Focus: Chapter 3: Order by Size, Length, or Weight	
Tasks Lessons 3.1- 3.4	**Focus Standards:** K.MD.1, K.MD.2, K.MD.3

Tasks:

MIF Performance Tasks:

Chapter 3 Student Pages Chapter 3 Teacher Pages

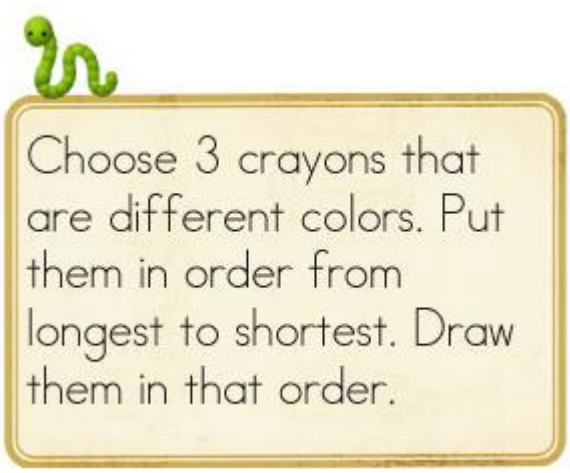
Additional Tasks:

Which is heavier? Longer or Shorter

Which weighs more? Which weighs less? Size Shuffle

Additional Skills, Strategies, and Concepts:

- Use everyday objects such as a bottle of water to point out to students how the objects have measurable attributes.
- Weight, length, and capacity (volume) are different concepts that are most effectively learned one at a time. A single object can have more than one measurable attribute.
- Teachers should have exploratory activities that allow students to "play" with the different measurable concepts, with objects that have those measurable attributes.
- Students need a great deal of exposure to comparative language that is used to make comparisons between two objects in a set. They need ample experiences with comparing objects in order to discover the importance of lining up the ends of objects to assure an accurate measurement.
- Guide students to communicate those comparisons and articulate the differences between two objects.



- Have students select 3 crayons/ pencnils and place them from shortest to tallest. Have them also draw the images in their journals to explain how they noticed which was longer and which was shorter.

Additional activities can be found at:
http://www.kindergartenkindergarten.com/2012/06/problem-solving-measurement.html

Have students sit in a big circle and give them each 1 or 2 objects that I have gathered from around the classroom. (I choose objects that can easily be ordered by length). I tell them that we are going to put all of these objects in order from shortest to longest. I start by putting one object down. We review why it's important to line objects up on one end and come up with a strategy to do that for all of the objects. (Here we used the strip between the carpet and tile).

Math in Focus: Chapter 4: Counting and Numbers 0 to10	
Tasks Lessons 4.1-4.6	**Focus Standards:** K.CC.1, K.CC.2, K.CC.3,K.CC.4a, K.CC.4b, K.CC.4c, K.CC.5

Tasks:

MIF Performance Tasks:

Chapter 4 Student Pages Chapter 4 Teacher Pages

Additional Tasks:

Guess the Marbles in the Bag?

Additional Skills, Strategies, and Concepts:

- Introduce equations to represent the composing and decomposing of numbers with concrete manipulatives and models.
- Present a partial list of numbers and ask students what would come next. 1, 2, __, __, 5, 6, __, 8, 9. Use a hundreds chart or number line to start counting from various numbers to keep track of the number of items. Use counting on strategies. Students take turns counting from an assigned number to a higher one in sequential order.
- Assure correct vocabulary is used when discussing an equation. For example, 3+2= 5 is read as three plus two equals five. Avoid the use of makes as this causes confusion in upper grades.
- Understand addition as putting together and adding to situations. Students can explain the strategy used such as counting by one, or counting on.
- Create addition events with objects (up to 10), with drawings and sounds (up to 10), and by acting out situations and with verbal explanations.
- Use a variety of manipulatives or drawings for counting. Use number bonds, ten frames, number lines, calendar, and hundred chart to count.

Using a Ten Frame

Counting and Building "How many"

Math in Focus: Chapter 5: Size and Position	
Lessons 5.1- 5.3	**Standards:** K.CC.1, K.CC.3, K.CC.4b, K.CC.5, K.CC.6, K.OA.1, K.MD.1, K.MD.2, K.MD.3 K.G.1

Tasks:

MIF Performance Tasks:

Chapter 5 Student Pages Chapter 5 Teacher Pages

Additional Tasks:

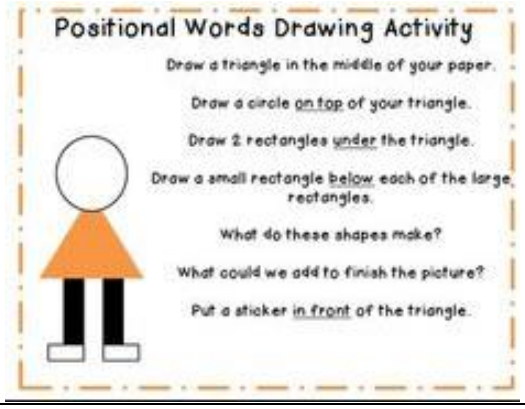
Longer and Shorter Goodie Bags

Additional Skills, Strategies, and Concepts:

- Students need numerous experiences identifying the location and position of actual two- and three-dimensional objects in their classroom prior to describing location and position of two- and three-dimensional representations on paper.
- Using objects in the classroom, show position, such as, the round clock is above the rectangular board.
- Incorporate positional words and phrases in a visual word wall: above, below, beside, in front, behind and next to.
- Identify similarities and differences between objects and use the identified attributes to sort a collection of objects. Then the students count the amount in each set. Finally, the students sort or group each of the sets by the amount in each set so that like amounts are grouped together but not necessarily ordered.

Example:

When exploring a collection of buttons: First, the student separates the buttons into different piles based on color (all the blue buttons are in one pile, all the red buttons are in a different pile, etc.). Then the student counts the number of buttons in each pile: blue (5), green (4), red (3), purple (4). Finally, the student organizes the groups by the quantity. “I put the purple buttons next to the green buttons because purple also had (4). Blue has 5 and red has 3. There aren’t any other colors that have 5 or 3. So they are sitting by themselves.”

	Students can work with different positional activities in which they are following basic instructions to determine their understanding of positional words and sizes.

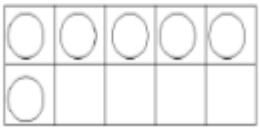
Math in Focus: Chapter 6: Numbers 0 to 20	
Tasks Lessons 6.1- 6.5	**Focus Standards:** K.CC.1, K.CC.2, K.CC.4a, K.CC.4b, K.CC.4c, K.CC.5, K.CC.6, K.CC.7 K.OA.1, K.OA.4 • ***K.NBT.1*** *is not addressed in this chapter but should be introduced and reviewed throughout the year.* ***Numbers in the Teens Song***
Tasks: ***MIF Performance Tasks:*** Chapter 6 Student Pages Chapter 6 Teacher Pages ***Additional Tasks:*** Find Equal Groups Which number is greater? What makes a teen number?	
Additional Skills, Strategies, and Concepts: • Students develop an understanding of part-whole relationships as they recognize a set of objects can be divided into smaller sub-sets and still remain the total amount. Ex. 10 can be broken into 3 and 7 • Students realize that a set of objects can be broken in multiple ways. Ex. 10 as 3 and 7: 4 and 6 Decompose 10 using fingers, ten frames, drawings, red and yellow counters, two-color beans, snap cubes, part-part-whole mats, or an organized list. Then record the equations. • Use vocabulary such as “and” / “same amount as” before symbols (+,+) and equations (5=3+2) are introduced. • If equations are used, a mathematical representation (picture, objects) also needs to be present. Use ten frames, part-part-whole mats, addition, and fact fluency.	

Think Addition

"I counted out 10 counters because I knew there needed to be ten. I pushed these 6 over here because they were in the container. These are left over. So there's 4 missing."

Using a Ten-Frame

"I used a ten frame for the case. Then, I put on 6 counters for juice still in the case. There's no juice in these 4 spaces. So, 4 are missing."



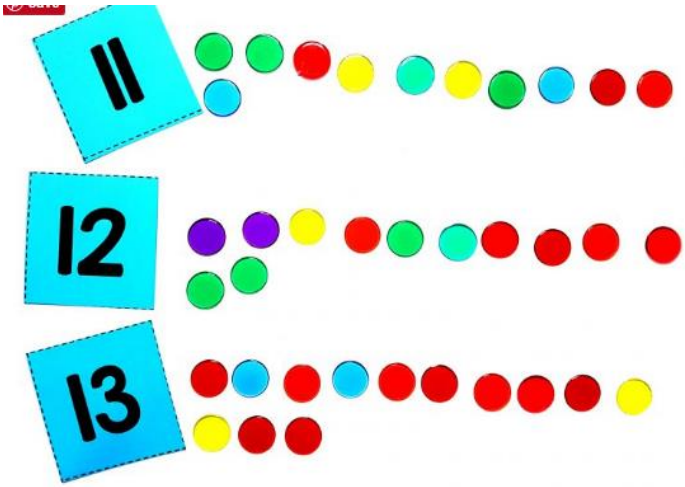
- Students should master the ability to use concrete groupable materials (e.g., connecting cubes, snap cubes, etc.) to represent the combination of one ten and ones for each number and record the representations of 11 through 19 in pictures, numbers, and/or equations by the end of the year.

Create a number booklet.

Have students choose 2 colors of paint and dot the number that is indicated on each page by choosing one color for 1-10 and another for the amount that is above 10.

For example:

12 would be 10 in red and 2 blue



Provide materials for kids to count and connect with objects and numbers. This encourages children to see that numbers are more than words. Teach children that numbers have many representations, such as dots, fingers, counters, numerals, objects, ten frames, etc.

Additional activities can be found at: https://proudtobeprimary.com/building-number-sense-to-20/

Math in Focus: Chapter 8: Numbers to 100	
Tasks Lessons 8.3 – 8.7 *Lesson 8.1 and 8.2 will be addressed in 1st grade.*	**Focus Standards:** K.CC.1, K.CC.4a,b,c

Tasks:

MIF Performance Tasks:

Additional Tasks:

Which is heavier?

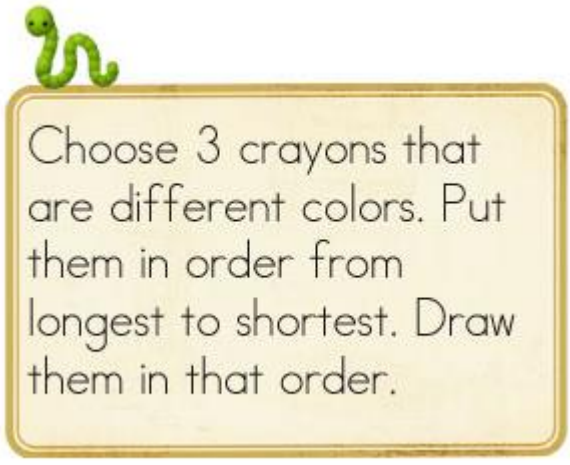
Which weighs more? Which weighs less?

Longer or Shorter

Size Shuffle

Additional Skills, Strategies, and Concepts:

- Use everyday objects such as a bottle of water to point out to students how the objects have measurable attributes.
- Weight, length, and capacity (volume) are different concepts that are most effectively learned one at a time. A single object can have more than one measurable attribute.
- Teachers should have exploratory activities that allow students to "play" with the different measurable concepts, with objects that have those measurable attributes.
- Students need a great deal of exposure to comparative language that is used to make comparisons between two objects in a set. They need ample experiences with comparing objects in order to discover the importance of lining up the ends of objects to assure an accurate measurement.
- Guide students to communicate those comparisons and articulate the differences between two objects.



- Have students select 3 crayons/ pencnils and place them from shortest to tallest. Have them also draw the images in their journals to explain how they noticed which was longer and which was shorter.

Additional activities can be found at:
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Have students sit in a big circle and give them each 1 or 2 objects that I have gathered from around the classroom. (I choose objects that can easily be ordered by length). I tell them that we are going to put all of these objects in order from shortest to longest. I start by putting one object down. We review why it's important to line objects up on one end and come up with a strategy to do that for all of the objects. (Here we used the strip between the carpet and tile).

Math in Focus: Chapter 9: Comparing Sets	
Tasks Lessons 9.1- 9.4	**Focus Standards:** K.CC.1, K.CC.2, K.CC.3, K.CC.4a,b,c K.CC.6 K.OA.1, K.OA.2, K.OA.5

Tasks:

MIF Performance Tasks:

Chapter 4 Teacher Pages

Additional Tasks:

Guess the Marbles in the Bag?

Additional Skills, Strategies, and Concepts:

- Introduce equations to represent the composing and decomposing of numbers with concrete manipulatives and models.
- Present a partial list of numbers and ask students what would come next. 1, 2, __, __, 5, 6, __, 8, 9. Use a hundreds chart or number line to start counting from various numbers to keep track of the number of items. Use counting on strategies. Students take turns counting from an assigned number to a higher one in sequential order.
- Assure correct vocabulary is used when discussing an equation. For example, 3+2= 5 is read as three plus two equals five. Avoid the use of makes as this causes confusion in upper grades.
- Understand addition as putting together and adding to situations. Students can explain the strategy used such as counting by one, or counting on.
- Create addition events with objects (up to 10), with drawings and sounds (up to 10), and by acting out situations and with verbal explanations.
- Use a variety of manipulatives or drawings for counting. Use number bonds, ten frames, number lines, calendar, and hundred chart to count.

Using a Ten Frame

Counting and Building "How many"

Math in Focus: Chapter 12: Counting On and Counting Back	
Lessons 12.1 -12.3	**Standards:** K.CC.2, K.CC.3, K.CC.4, K.CC.6, K.CC.7, K.OA.1,K.OA.3, K.OA.4

Tasks:

MIF Performance Tasks:

Chapter 5 Student Pages Chapter 5 Teacher Pages

Additional Tasks:

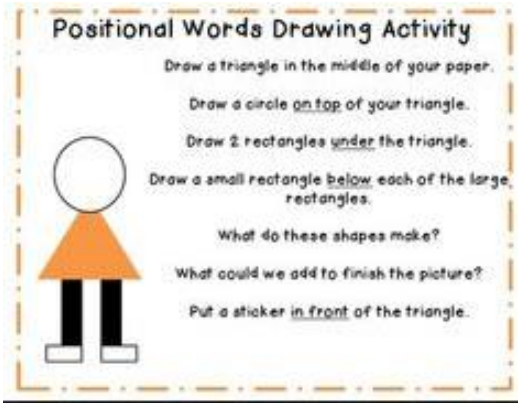
Longer and Shorter Goodie Bags

Additional Skills, Strategies, and Concepts:

- Students need numerous experiences identifying the location and position of actual two- and three-dimensional objects in their classroom prior to describing location and position of two- and three-dimensional representations on paper.
- Using objects in the classroom, show position, such as, the round clock is above the rectangular board.
- Incorporate positional words and phrases in a visual word wall: above, below, beside, in front, behind and next to.
- Identify similarities and differences between objects and use the identified attributes to sort a collection of objects. Then the students count the amount in each set. Finally, the students sort or group each of the sets by the amount in each set so that like amounts are grouped together but not necessarily ordered.

Example:

When exploring a collection of buttons: First, the student separates the buttons into different piles based on color (all the blue buttons are in one pile, all the red buttons are in a different pile, etc.). Then the student counts the number of buttons in each pile: blue (5), green (4), red (3), purple (4). Finally, the student organizes the groups by the quantity. "I put the purple buttons next to the green buttons because purple also had (4). Blue has 5 and red has 3. There aren't any other colors that have 5 or 3. So they are sitting by themselves."



Students can work with different positional activities in which they are following basic instructions to determine their understanding of positional words and sizes.

Math in Focus: Chapter 14: Number Facts	
Tasks Lessons 14.1- 14.4	**Focus Standards:** K.CC.2, K.CC.4, K.CC.6, K.OA.1, K.OA.3, K.OA.4 K.NBT.1 • ***K.NBT.1*** *is not addressed in this chapter but should be introduced and reviewed throughout the year.* ***Numbers in the Teens Song***

Tasks:

MIF Performance Tasks:

Chapter 6 Student Pages Chapter 6 Teacher Pages

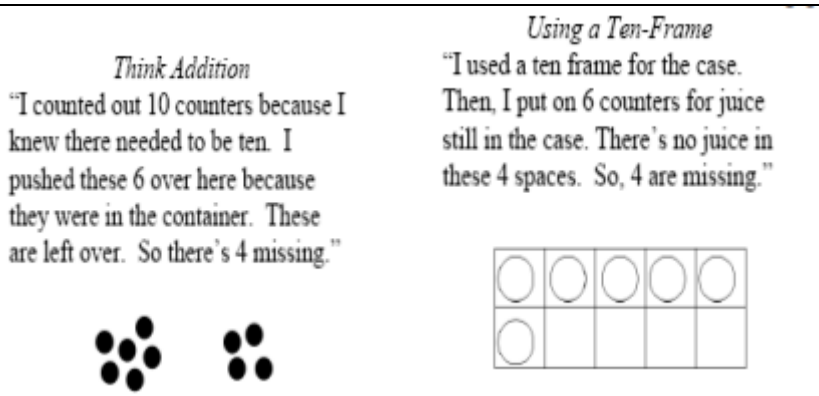
Additional Tasks:

Find Equal Groups Which number is greater?

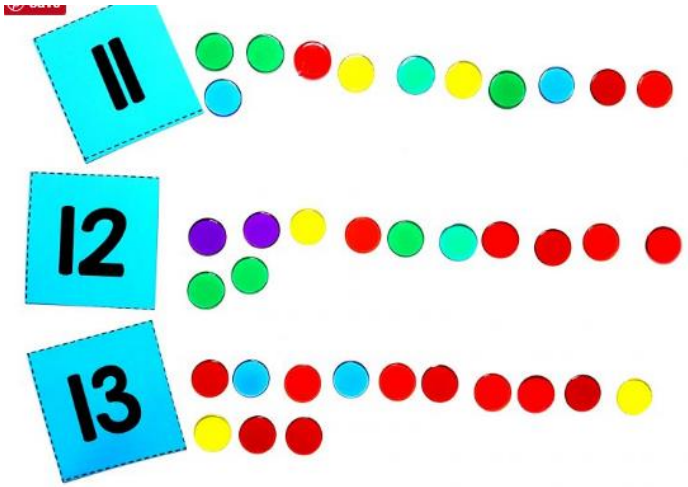
What makes a teen number?

Additional Skills, Strategies, and Concepts:

- Students develop an understanding of part-whole relationships as they recognize a set of objects can be divided into smaller sub-sets and still remain the total amount. Ex. 10 can be broken into 3 and 7
- Students realize that a set of objects can be broken in multiple ways. Ex. 10 as 3 and 7: 4 and 6 Decompose 10 using fingers, ten frames, drawings, red and yellow counters, two-color beans, snap cubes, part-part-whole mats, or an organized list. Then record the equations.
- Use vocabulary such as “and” / “same amount as” before symbols (+,+) and equations (5=3+2) are intro-duced.
- If equations are used, a mathematical representation (picture, objects) also needs to be present. Use ten frames, part-part-whole mats, addition, and fact fluency.



- Students should master the ability to use concrete groupable materials (e.g., connecting cubes, snap cubes, etc.) to represent the combination of one ten and ones for each number and record the representations of 11 through 19 in pictures, numbers, and/or equations by the end of the year.

	Create a number booklet. Have students choose 2 colors of paint and dot the number that is indicated on each page by choosing one color for 1-10 and another for the amount that is above 10. For example: 12 would be 10 in red and 2 blue
	Provide materials for kids to count and connect with objects and numbers. This e encourages children to see that numbers are more than words. Teach children that numbers have many representations, such as dots, fingers, counters, numerals, objects, ten frames, etc. Additional activities can be found at: https://proudtobeprimary.com/building-number-sense-to-20/

Math in Focus: Chapter 17: Addition Stories	
Tasks Lessons 17.1 – 17.2	**Focus Standards:** K.MD.1, K.MD.2, K.MD.3

Tasks:

MIF Performance Tasks:

Chapter 3 Student Pages Chapter 3 Teacher Pages

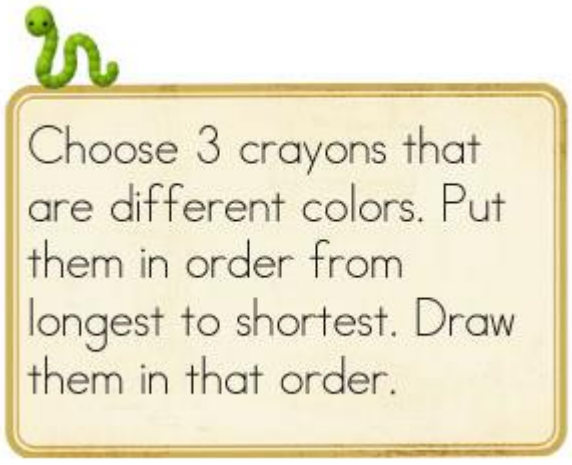
Additional Tasks:

Which is heavier? Longer or Shorter

Which weighs more? Which weighs less? Size Shuffle

Additional Skills, Strategies, and Concepts:

- Use everyday objects such as a bottle of water to point out to students how the objects have measurable attributes.
- Weight, length, and capacity (volume) are different concepts that are most effectively learned one at a time. A single object can have more than one measurable attribute.
- Teachers should have exploratory activities that allow students to "play" with the different measurable concepts, with objects that have those measurable attributes.
- Students need a great deal of exposure to comparative language that is used to make comparisons between two objects in a set. They need ample experiences with comparing objects in order to discover the importance of lining up the ends of objects to assure an accurate measurement.
- Guide students to communicate those comparisons and articulate the differences between two objects.



- Have students select 3 crayons/ pencnils and place them from shortest to tallest. Have them also draw the images in their journals to explain how they noticed which was longer and which was shorter.

Additional activities can be found at: http://www.kindergartenkindergarten.com/2012/06/problem-solving-measurement.html

	Have students sit in a big circle and give them each 1 or 2 objects that I have gathered from around the classroom. (I choose objects that can easily be ordered by length). I tell them that we are going to put all of these objects in order from shortest to longest. I start by putting one object down. We review why it's important to line objects up on one end and come up with a strategy to do that for all of the objects. (Here we used the strip between the carpet and tile).

Math in Focus: Chapter 18: Subtraction Stories	
Tasks Lessons 18.1- 18.3	**Focus Standards:** K.CC.1, K.CC.2, K.CC.3,K.CC.4a, K.CC.4b, K.CC.4c, K.CC.5

Tasks:

MIF Performance Tasks:

Chapter 4 Student Pages Chapter 4 Teacher Pages

Additional Tasks:

Guess the Marbles in the Bag?

Additional Skills, Strategies, and Concepts:

- Introduce equations to represent the composing and decomposing of numbers with concrete manipulatives and models.
- Present a partial list of numbers and ask students what would come next. 1, 2, __, __, 5, 6, __, 8, 9. Use a hundreds chart or number line to start counting from various numbers to keep track of the number of items. Use counting on strategies. Students take turns counting from an assigned number to a higher one in sequential order.
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- Understand addition as putting together and adding to situations. Students can explain the strategy used such as counting by one, or counting on.
- Create addition events with objects (up to 10), with drawings and sounds (up to 10), and by acting out situations and with verbal explanations.
- Use a variety of manipulatives or drawings for counting. Use number bonds, ten frames, number lines¸ calendar, and hundred chart to count.

Using a Ten Frame

Counting and Building "How many"

Math in Focus: Chapter 7: Solid and Flat Shapes	
Lessons 7.1-7.5	**Standards:** K.CC.1, K.CC.3, K.CC.4b, K.CC.5, K.CC.6, K.OA.1, K.MD.1, K.MD.2, K.MD.3 K.G.1

Tasks:

MIF Performance Tasks:

Chapter 5 Student Pages Chapter 5 Teacher Pages

Additional Tasks:

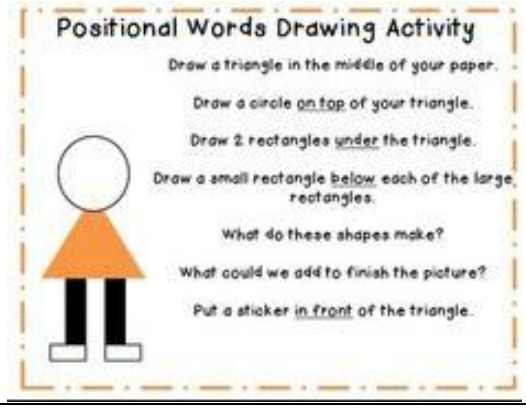
Longer and Shorter Goodie Bags

Additional Skills, Strategies, and Concepts:

- Students need numerous experiences identifying the location and position of actual two- and three-dimensional objects in their classroom prior to describing location and position of two- and three-dimensional representations on paper.
- Using objects in the classroom, show position, such as, the round clock is above the rectangular board.
- Incorporate positional words and phrases in a visual word wall: above, below, beside, in front, behind and next to.
- Identify similarities and differences between objects and use the identified attributes to sort a collection of objects. Then the students count the amount in each set. Finally, the students sort or group each of the sets by the amount in each set so that like amounts are grouped together but not necessarily ordered.

Example:

When exploring a collection of buttons: First, the student separates the buttons into different piles based on color (all the blue buttons are in one pile, all the red buttons are in a different pile, etc.). Then the student counts the number of buttons in each pile: blue (5), green (4), red (3), purple (4). Finally, the student organizes the groups by the quantity. “I put the purple buttons next to the green buttons because purple also had (4). Blue has 5 and red has 3. There aren’t any other colors that have 5 or 3. So they are sitting by themselves.”

	Students can work with different positional activities in which they are following basic instructions to determine their understanding of positional words and sizes.

Math in Focus: Chapter 16: Classifying and Sorting	
Tasks Lessons 16.1 – 16.2	**Focus Standards:** K.CC.1, K.CC.2, K.CC.4a, K.CC.4b, K.CC.4c, K.CC.5, K.CC.6, K.CC.7 K.OA.1, K.OA.4

Tasks:

MIF Performance Tasks:

Chapter 6 Student Pages Chapter 6 Teacher Pages

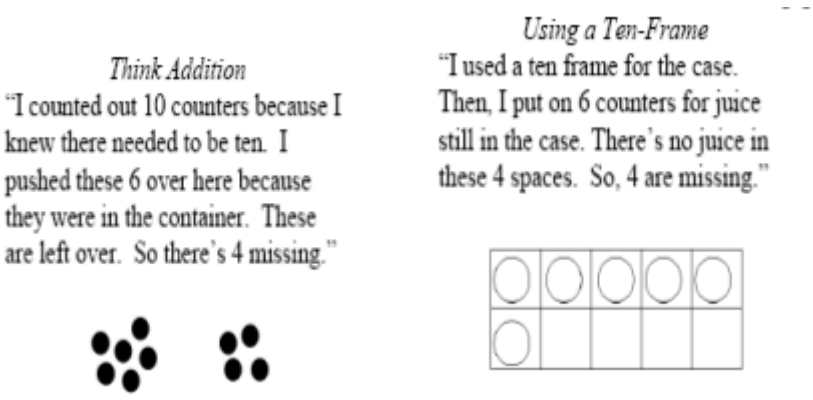
Additional Tasks:

Find Equal Groups Which number is greater?

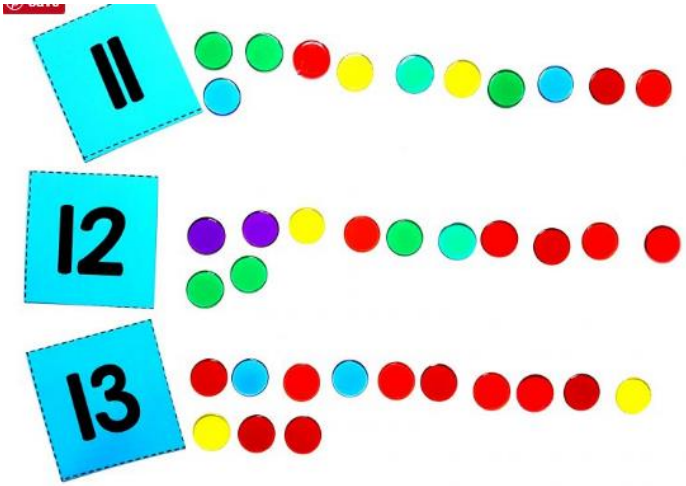
What makes a teen number?

Additional Skills, Strategies, and Concepts:

- Students develop an understanding of part-whole relationships as they recognize a set of objects can be divided into smaller sub-sets and still remain the total amount. Ex. 10 can be broken into 3 and 7
- Students realize that a set of objects can be broken in multiple ways. Ex. 10 as 3 and 7: 4 and 6 Decompose 10 using fingers, ten frames, drawings, red and yellow counters, two-color beans, snap cubes, part-part-whole mats, or an organized list. Then record the equations.
- Use vocabulary such as "and" / "same amount as" before symbols (+,+) and equations (5=3+2) are introduced.
- If equations are used, a mathematical representation (picture, objects) also needs to be present. Use ten frames, part-part-whole mats, addition, and fact fluency.



- Students should master the ability to use concrete groupable materials (e.g., connecting cubes, snap cubes, etc.) to represent the combination of one ten and ones for each number and record the representations of 11 through 19 in pictures, numbers, and/or equations by the end of the year.

	Create a number booklet. Have students choose 2 colors of paint and dot the number that is indicated on each page by choosing one color for 1-10 and another for the amount that is above 10. For example: 12 would be 10 in red and 2 blue
	Provide materials for kids to count and connect with objects and numbers. This encourages children to see that numbers are more than words. Teach children that numbers have many representations, such as dots, fingers, counters, numerals, objects, ten frames, etc. Additional activities can be found at: https://proudtobeprimary.com/building-number-sense-to-20/

Math in Focus: Chapter 15: Length and Height	
Tasks Lessons 15.1 – 15.3	**Focus Standards:** K.CC.1, K.CC.2, K.CC.4a, K.CC.4b, K.CC.4c, K.CC.5, K.CC.6, K.CC.7 K.OA.1, K.OA.4
Tasks: ***MIF Performance Tasks:*** Chapter 6 Student Pages Chapter 6 Teacher Pages ***Additional Tasks:*** Find Equal Groups Which number is greater? What makes a teen number?	

Modifications

Special Education/ 504:

-Adhere to all modifications and health concerns stated in each IEP.
-Give students a Menu, allowing students to pick assignments from different levels based on difficulty.
-Accommodate Instructional Strategies: reading aloud text, graphic organizers, one-on-one instruction, class website (Google Classroom), handouts, definition list with visuals, extended time
-Allow students to demonstrate understanding of a problem by drawing the picture of the answer and then explaining the reasoning orally and/or in writing , such as Read-Draw-Write
-Provide breaks between tasks, use positive reinforcement, use proximity
-Assure students have experiences that are on the Concrete- Pictorial- Abstract spectrum by using manipulatives
-Common Core Approach to Differentiate Instruction: Students with Disabilities (pg 17-18)
-Strategies for Students with 504 Plans

English Language Learners:

- Use manipulatives to promote conceptual understanding and enhance vocabulary usage
- Provide graphic representations, gestures, drawings, equations, realia, and pictures during all segments of instruction
- During i-Ready lessons, click on "Español" to hear specific words in Spanish
- Utilize graphic organizers which are concrete, pictorial ways of constructing knowledge and organizing information
- Use sentence frames and questioning strategies so that students will explain their thinking/ process of how to solve word problems
- Utilize program translations (if available) for L1/ L2 students
- Reword questions in simpler language
- Make use of the ELL Mathematical Language Routines (click here for additional information)
-Scaffolding instruction for ELL Learners
-Common Core Approach to Differentiate Instruction: Students with Disabilities (pg 16-17)

Gifted and Talented:

- Elevated contextual complexity
- Inquiry based or open ended assignments and projects
- More time to study concepts with greater depth
- Promote the synthesis of concepts and making real world connections
- Provide students with enrichment practice that are imbedded in the curriculum such as:
    - Application / Conceptual Development
    - Are you ready for more?
- Common Core Approach to Differentiate Instruction: Students with Disabilities (pg. 20)
- Provide opportunities for math competitions
- Alternative instruction pathways available

Students at Risk for Failure:

- Assure students have experiences that are on the Concrete- Pictorial- Abstract spectrum
- Modify Instructional Strategies, reading aloud text, graphic organizers, one-on-one instruction, class website (Google Classroom), inclusion of more visuals and manipulatives, Field Trips, Google Expeditions, Peer Support, one on one instruction
- Assure constant parental/ guardian contact throughout the year with successes/ challenges
- Provide academic contracts to students and guardians
- Create an interactive notebook with samples, key vocabulary words, student goals/ objectives.
- Always plan to address students at risk in your learning tasks, instructions, and directions. Try to anticipate where the needs will be and then address them prior to lessons.
-Common Core Approach to Differentiate Instruction: Students with Disabilities (pg 19)

21st Century Life and Career Skills:

Career Ready Practices describe the career-ready skills that all educators in all content areas should seek to develop in their students. They are practices that have been linked to increase college, career, and life success. Career Ready Practices should be taught and reinforced in all career exploration and preparation programs with increasingly higher levels of complexity and expectation as a student advances through a program of study.

https://www.state.nj.us/education/cccs/2014/career/9.pdf

- **CRP1**. Act as a responsible and contributing citizen and employee.
- **CRP2**. Apply appropriate academic and technical skills.
- **CRP3**. Attend to personal health and financial well-being.
- **CRP4**. Communicate clearly and effectively and with reason.
- **CRP5**. Consider the environmental, social and economic impacts of decisions.
- **CRP6**. Demonstrate creativity and innovation.
- **CRP7**. Employ valid and reliable research strategies.
- **CRP8**. Utilize critical thinking to make sense of problems and persevere in solving them.
- **CRP9**. Model integrity, ethical leadership and effective management.
- **CRP10**. Plan education and career paths aligned to personal goals.
- **CRP11**. Use technology to enhance productivity.
- **CRP12**. Work productively in teams while using cultural global competence.

Students are given an opportunity to communicate with peers effectively, clearly, and with the use of technical language. They are encouraged to reason through experiences that promote critical thinking and emphasize the importance of perseverance. Students are exposed to various mediums of technology, such as digital learning, calculators, and educational websites.

Technology Standards:

All students will be prepared to meet the challenge of a dynamic global society in which they participate, contribute, achieve, and flourish through universal access to people, information, and ideas.
https://www.state.nj.us/education/cccs/2014/tech/

8.1 Educational Technology:

All students will use digital tools to access, manage, evaluate, and synthesize information in order to solve problems individually and collaborate and to create and communicate knowledge.

A. **Technology Operations and Concepts:** Students demonstrate a sound understanding of technology concepts, systems and operations.
B. **Creativity and Innovation:** Students demonstrate creative thinking, construct knowledge and develop innovative products and process using technology.
C. **Communication and Collaboration:** Students use digital media and environments to communicate and work collaboratively, including at a distance, to support individual learning and contribute to the learning of others.
D. **Digital Citizenship:** Students understand human, cultural, and societal issues related to technology and practice legal and ethical behavior.
E. **Research and Information Fluency:** Students apply digital tools to gather, evaluate, and use of information.
F. **Critical thinking, problem solving, and decision making:** Students use critical thinking skills to plan and conduct research, manage projects, solve problems, and make informed decisions using appropriate digital tools and resources.

8.2 Technology Education, Engineering, Design, and Computational Thinking - Programming:

All students will develop an understanding of the nature and impact of technology, engineering, technological design, computational thinking and the designed world as they relate to the individual, global society, and the environment.

A. **The Nature of Technology: Creativity and Innovation-** Technology systems impact every aspect of the world in which we live.
B. **Technology and Society:** Knowledge and understanding of human, cultural, and societal values are fundamental when designing technological systems and products in the global society.
C. **Design:** The design process is a systematic approach to solving problems.
D. **Abilities in a Technological World:** The designed world in a product of a design process that provides the means to convert resources into products and systems.
E. **Computational Thinking: Programming-** Computational thinking builds and enhances problem solving, allowing students to move beyond using knowledge to creating knowledge.

Interdisciplinary Connections:	
English Language Arts:	
RF.K.4	Read emergent-reader texts with purpose and understanding.
W.K.2	Use a combination of drawing, dictating, and writing to compose informative/explanatory texts in which they name what they are writing about and supply some information about the topic.
SL.K.1	Participate in collaborative conversations with diverse partners about *kindergarten topics and texts* with peers and adults in small and larger groups.