

**Prairie-Hills Elementary School District
144 Kindergarten ~ MATH Curriculum
Map Quarter 1**

Domain(s):

- Counting and Cardinality
- Geometry

Cluster(s):

- Identify and describe shapes (squares, circles, triangles, rectangles).
- Count to tell the number of objects.
- Know number names and the count sequence.
- Identifying same and different.

Standard(s):

K.G.1 (Position Language) Identify and describe shapes 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 squares, circles, triangles, rectangles*. **(Additional Standard) next to.**

Count to tell the number of objects. (Introduce & Support)

K.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality.

- 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. **(Master)**
- 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. **(Master)**
- Understand that each successive number name refers to a quantity that is one larger. **(Master)**

Know number names and the count sequence.

K.CC.1 Count to 100 by ones and by tens. **(Introduce & Support)**

K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects)

K.CC.2 Count forward from a given number within the known sequence (instead of having to begin at 1). **(Master)**

Count to tell the number of objects.

K.CC.5 Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration given a number from 1-20, count out that many objects. **(Master)**

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Centers:

Counting and Cardinality (Introduce & Support)

K.CC.4 Count to tell the number of objects. Understands the relationship between numbers and quantities: connect counting to cardinality. (master)

K.CC.4a 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. (Master)

Advanced Skills/Concepts:

- *Some students may be ready to...*
- Apply knowledge of positional words from real life objects to the relationship of numbers in visual models. (number line, number grid)
Ex. 2 is next to 3, or beside 3 on a number line or number grid.
- Instantly recognize objects in different arrangements and begin using small groups or units when counting objects.
- Use grouping strategies when they count.
- Begin predicting, "What's next?" when asked about the next number in a sequence.
- Application of Base-10 number system to count other number sequences within 100

Key Vocabulary:

Key Academic Vocabulary:

Count number understand	Number words 0-10 (ex. Zero, one, two.....)		
Before under	after	Between order	Same different

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Month: October, November, December

Quarter 2

Domain(s):

- Counting and Cardinality
- Measurement and Data
- Operations and Algebraic Thinking

Cluster(s):

- **Compare Numbers**
- **Describe and compare measurable attributes**
- **Classify objects and count the number of objects in each category**
- **Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.**
- **Know number names and the count sequence.**
- **Count to tell the number of objects**

Standard(s): Quarter 2

Know number names and the count sequence.

K.CC.1 Count to 100 by ones and by tens. (Support)

K.CC.2 Count forward from a given number within the known sequence (instead of having to begin at 1). (Master)

K.CC.3 Write numbers from 0-20. Represent a number of objects with a written numeral 0-20 (with a 0 representing a count of no objects). (Master)

Count to tell the number of objects.

C. **C.4** Understand the relationship between numbers and quantities; connect counting to cardinality.

- 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. (Master)
- 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. (Master)
- Understand that each successive number name refers to a quantity that is one larger. (Master)

Count to tell the number of objects.

K.CC.5 Count to answer "how many?" questions about as many as 20 things arranged in a line, a rectangular array, or a circle, or as many as 10 things in a scattered configuration given a number from 1-20, count out that many objects. (Master)

Compare Numbers

K.CC.6 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. (Include groups with up to ten objects) (Introduce & Support)

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K.CC.7 Compare two numbers between one and ten presented as written numerals. (Introduce & support)

Standard(s):

Describe and compare measurable attributes

Classify objects and count the number of objects in each category

K.MD.3 Classify objects into given categories; count the numbers of objects in each category and sort the categories by count. (limit category counts to be less than or equal to 10). (Introduce & Support)

Routines:

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

K.OA.1 Represent addition and subtraction with objects, fingers, mental images, drawings, sounds (e.g. claps), acting out situations, verbal explanations, expressions, or equations. (Introduce & Support)

K.OA.3 Decompose numbers less than or equal to 10 into pairs in more than one way e.g. by using objects or drawings and record each decomposition by a drawing or equation (e.g. $5=2+3$ and $5=4+1$) (Introduce & Support)

K.OA.5 Fluently add and subtract within 5. (Introduce & Support)

K.OA.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g. by using objects or drawings to represent the problem. (Introduce & support)

Know number names and the count sequence.

K.CC.1 Count to 100 by ones and tens (Introduce & Support)

K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). (Master)

Centers:

Know number names and the count sequence

K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). (Master)

Count to tell the number of objects

K.CC.4 Understand the relationship between numbers and quantities; connect counting to cardinality (Master)

Targeted Skills: Understandings: *Students will understand that ...*

- Each successive number name refers to a quantity that is one larger.
- The last number name said is the total number of objects counted.
- Relationships between numbers and quantities; connect counting to cardinality.
- Knowledge of numbers 0-10 can be applied to predict order and sequence in higher numbers (10- 20, 20-30, etc)
- Comparing quantity of numbers can be described as less than, greater than, or equal to.
- Some attributes are measurable and both numbers and words can be used to describe and compare the measurements.

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- Groups can be quantified for comparison and order.
- Written numerals represent an amount and each numeral represents a different amount.
- The quantity of numbers can be combined in different groups of numbers.
- Numbers can be decomposed with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations and can be demonstrated in more than one way.
- Number combinations progress to addition and subtraction of numbers within 5.
- Numbers are composed of other numbers
- Numbers can be decomposed into other numbers.

Knowledge: *Students will know...*

- Numerals
- How to compare objects based on quantity to identify more, less, or equal.
- How to categorize objects using attributes
- How to measure and compare 2 objects.
- Comparison language.
- Put together and take apart models.

Skills: *Students will be able to do...*

- Count up to 20 objects in any organized arrangement.
- Count up to 10 objects in a scattered arrangement.
- Count out a given quantity of objects within 20.
- Write numerals for quantities within 20.
- Connect a numeral with a quantity.
- Identify counts of objects as more than, less than, or equal to.

Key Academic Vocabulary:

Greater than
less than
length
understand number words 0-15 sort
joining
separate
plus
minus
put together

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shorter
addition
subtraction
equal to
taller
longer
high

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<p>Critical Terms: Attribute Weight Quantity Number words Cardinality Number Names Represent Numerals Compare Group/Unit More of Decompose Compose Word Problems Number Numeral Equation Difference (within context of Measurement Standard)</p>	<p>Supplemental Terms: Number words Numerals Count Shorter lighter Heavier Modality Number Before After In Front Of Behind</p>

Quarter 3

Month: December, January, February, March

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

K.OA.1 Represent addition and subtractions with objects, fingers, mental images, drawing, sound (e.g. claps), acting out situations, verbal explanations, expressions, or equations. (Support)

K.OA.3 Decompose numbers, less than or equal to 10 into pairs in more than one way, e.g. by using objects or drawings, and record each decomposition by a drawing or equation (e.g. $5=2+3$ and $5=4+1$) (Support)

K.OA.5 Fluently add and subtract within 5. (Support)

K.OA.4 For any number from 1 to 9, find the number that makes 10 when added to the given number, e.g. by using objects or drawings, and record the answer with a drawing or equation. (Support)

K.OA.2 Solve addition and subtraction word problems, and add and subtract within 10, e.g. by using objects or drawings to represent the problem. (Support)

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

K.NBT.1 Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (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. (Support)

Routines:

Know number names and the count sequence.

K.CC.1 Count to 100 by ones and tens (Support)

K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). (Master)

Centers:

Identify and describe shapes (squares, circles, triangles, rectangles).

K.G.1 Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to. (Additional Standard)

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

K.OA.5 Fluently add and subtract within 5 (Support)

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Know number names and the count sequence.

C. **C.3 W** 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).

(Master)

Targeted Skills:

Understandings: *Students will understand that ...*

- Objects and people have position relative to other objects.
- Positional words can be used to describe relative position of objects in a real life environment and numbers in the counting sequence.
- The quantity of numbers can be combined in different groups of numbers.
- Numbers can be decomposed with objects, fingers, mental images, drawings, sounds, acting out situations, verbal explanations, expressions, or equations and can be demonstrated in more than one way.
- Number combinations progress to addition and subtraction of numbers within 5.
- Numbers are composed of other numbers
- Numbers can be decomposed into other numbers.
- Different combinations of numbers within 10 represent addition and subtraction.
- Word problems can be represented with objects or drawings.
- Equations can be built by decomposing numbers in more than one way.
- Quantities can be created using a variety of individual sets.
- Teen numbers are composed of a group of ten and some more.

Knowledge: *Students will know...*

- Put together and take apart models.
- Combinations of 10 using modalities
- Number combinations within 5
- **Skills:** *Students will be able to do...*
 - Use knowledge of number combinations to fluently add and subtract within 5.
 - Represent addition and subtraction with multiple modalities.
 - Represent addition and subtraction word problems with objects or drawings.
 - Use knowledge of number combinations to fluently add and subtraction within 5.
 - Represent addition and subtraction word problems with multiple modalities within 10. (objects and drawings)
 - Extend number combinations of 5 to combinations within 10 by using objects or drawings, and record the answer with a drawing or equation.
 - Number names for teen numbers

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Critical Vocabulary

Taller	height	width	length	full	empty
Solid	fourths	thermometer	skip count by tens	skip count by fives	
skip count by 2s	Estimate	Circle	Square	Rectangle	oval
Less	Ruler	Equal groups	triangle	equal parts	
Diamond	cube	sphere	rectangular prism	cylinder	cone
More					
Solid	figures	faces	edges	Corner	rhombus

Quarter 4

Month: March, April, May, June

Domain(s):

- Geometry (G)
- Counting and Cardinality (CC)
- Operations and Algebraic Thinking (OA)
- Numbers - Base Ten (NBT)

Cluster(s):

- **Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres)**
- **Analyze, compare, create, and compose shapes.**
- **Know number names and the count sequence.**
- **Understand addition as putting together and adding to, and understand subtraction as taking apart and taking from.**
- **Work with numbers 11–19 to gain foundations for place value.**
- **Know number names and the count sequence.**

Standard(s):

Identify and describe shapes (squares, circles, triangles, rectangles, hexagons, cubes, cones, cylinders, and spheres) K.G.1

Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to. **(Master)**

2. Correctly name shapes regardless of their orientations or overall size **(Master)**

3. Identify shapes as two-dimensional (lying in a plane, “flat”) or three dimensional (“solid”). **(Support)**

Analyze, compare, create, and compose shapes.

4. 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). **(Support)**

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

K.G.6 Compose simple shapes to form larger shapes. For example, “Can you join these two triangles with full sides touching to make a rectangle?” **(Support)**

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Standard(s):

Routines:

Know number names and the count sequence.

K.CC.1 Count to 100 by ones and by tens. (Master)

K.CC.3 Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). (Master)

Centers:

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

K.OA.5 Fluently add and subtract within 5. (Master)

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

K.NBT.1 Compose and decompose numbers from 11 to 19 into ten ones and some further ones, e.g., by using objects or drawings, and record each composition or decomposition by a drawing or equation (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. (Master)

Know number names and the count sequence.

C. **C.3** Write numbers from 0 to 20. Represent a number of objects with a written numeral 0-20 (with 0 representing a count of no objects). (Master)

Targeted Skills:

Understandings: *Students will understand that ...*

- Teen numbers are composed of a group of ten and some more.
- Two-dimensional shapes are flat.
- Attributes are used to compare and analyze shapes.
- Basic shapes are used to create more complex shapes.
- Two dimensional shapes can be built from components.
- The location of objects are described by using positional words
- Three-dimensional shapes have unique attributes.

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- Three-dimensional shapes have specific names regardless of their orientations or overall size.
- Shapes can be used to build pictures, designs and other shapes.
- Shapes can be built from components.

Knowledge: *Students will know...*

- Number names for teen numbers
- Names of two-dimensional shapes (squares, circles, triangles, rectangles)
- Defining attributes of flat shapes
- Attributes of flat and solid shapes (K.G.4)
- Names of 2 and 3-dimensional shapes (K.G.2)

Skills: *Students will be able to do...*

- Decompose/compose teen numbers into a group of ten and some ones, using modalities as well a numerical representation. (K.NBT.1)
- Use objects/drawings to show how many tens and ones are in a number 11-19. (K.NBT.1)
- Record compositions and decompositions using an equation. (K.NBT.1)
- Draw shapes (circle, square, rectangle, triangle, hexagon)
- Build two-dimensional shapes from smaller shapes.
- Analyze and compare two-dimensional shapes using informal language (e.g. number of sides and vertices/ “corners” or having sides of equal length).
- Analyze and compare 2 and 3-dimensional shapes, in different sizes and orientations, using informal language to describe their similarities, differences, parts, and other attributes. (K.G.4)
- Model shapes in the world by building shapes from components and drawing shapes. (K.G.5)
- Describe objects in the environment using names of shapes, and describe the relative positions of these objects using terms such as above, below, beside, in front of, behind, and next to. (K.G.1)
- Identify shapes as “flat” or “solid.” (K.G.3)

Advanced Skills/Concepts:

Some students may be ready to...

Students will compose and decompose teen numbers using equations and explain the relationship of equations to the value of the numbers. Students will apply knowledge of two-dimensional shapes to extend to three-dimensional shapes.

Students will determine defining attributes of 3-dimensional figures

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Key Vocabulary:

number words 0-100 even odd tally marks count upcount back data always maybe halves fourths

AUGUST / SEPTEMBER / OCTOBER

Highlighted Mathematical Practices: (Practices to be explicitly emphasized are indicated with an *.)

1. **Make sense of problems and persevere in solving them.** **August:** Students will make sense of the position terms to describe and model relative positions of objects and numbers.
2. **Reason abstractly and quantitatively.** **August:** Students will reason about the sequence of numbers and the terms used to describe it.
 - September: Students understand that numbers represent quantity. **October:** Students will use their understanding of position and quantity to count from any given number. They reason about the value of the numbers as they count quantities of objects and pictures or count out objects.
3. **Construct viable arguments and critique the reasoning of others.** Students construct arguments when they explain the locations of objects or numbers, or why they have used a particular term to describe the position. They will critique others when they explain why they agree or disagree with them regarding the positional language or position used in the placement of objects or numbers.
 - **September:** Students represent their arguments through the act of counting objects and stating the total quantity counted. They also represent their arguments when counting out a quantity of objects to represent a numeral. They critique each other's reasoning when discussing whether they agree or disagree with peers who have counted the same set of objects. **October:** Students construct arguments when they explain why they believe a quantity should be labeled with a particular number or numeral. They critique each other's reasoning when they explain why they agree or disagree with totals or representations.
4. **Model with mathematics.** **August:** Students will begin using mathematical terms to describe objects in real life contexts. They will begin looking at numerals in context of location. **September:** Students model the value of numbers with objects and visuals. **October:** Students will count within 10 and use manipulatives, pictures, symbols, language and real-world situations to create models for each number.
5. **Use appropriate tools strategically.** September: Students attend to the precise sequence of number names when counting. This
 - includes attention to the value of zero.
6. **Attend to precision.** **August:** Students attend to precision by listen to the precise language of directions and either repeating or acting out situations involving relative positions. **September:** Students will recognize the appropriate order for saying the counting sequence. **October:** Students attend to the precise language and order of the count sequence. They make sure they use the appropriate name for the quantity.
 1. **Look for and make use of structure.** **August:** Through developing understanding of positional words, students will be able to describe the counting sequence. **October:** Students will apply understanding of numbers 0-10 to count and quantify numbers 0-20.
 2. **Look for and express regularity in repeated reasoning.** **August:** Students will use repeated reasoning as they connect the use of position language to both real-world objects and number positions. **September:** Students use their understanding of the structure and sequence of numbers to count appropriately in a variety of contexts. They use repeated reasoning to understand that the value of a number is

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consistent regardless of the arrangement of objects. (Conservation of number) Students can apply what they know 0-10 to the next 10 numbers based on the nature of our base-10 system.

OCTOBER / NOVEMBER / DECEMBER

Highlighted Mathematical Practices: (Practices to be explicitly emphasized are indicated with an *.)

1. **Make sense of problems and persevere in solving them.** November: Students make sense of comparison situations through their use of matching and counting strategies.
2. **Reason abstractly and quantitatively.** October: Students will use their understanding of position and quantity to count from any given number. They reason about the value of the numbers as they count quantities of objects and pictures or count out objects.
November: Students will demonstrate abstract reasoning when they compare quantities of objects and determine which group has more, less, or they are equal. They will also consider reasoning for groupings of objects, understanding that objects are grouped together because they possess common attributes and they can be grouped in multiple ways because they possess multiple attributes. December: Students will demonstrate abstract reasoning when recording composition and decomposition with written symbols.
3. **Construct viable arguments and critique the reasoning of others.** October: Students construct arguments when they explain why they believe a quantity should be labeled with a particular number or numeral. They critique each other's reasoning when they explain why they agree or disagree with totals or representations. November: Students discuss and share how objects and quantities are different or alike. They will also construct and critique arguments about whether or not an attribute is measurable or whether an object belongs in a particular group when sorting. December: Students will use different modalities to construct their arguments regarding number quantity and different combinations of number. They will critique each other when they discuss the validity of the various representations.
4. **Model with mathematics.** October: Students will count within 10 and use manipulatives, pictures, symbols, language and real-world situations to create models for each number. November: Students will represent numbers with objects and count groups of objects. They will sort objects with different characteristics into categories. December: Students will represent number combinations with objects, fingers, drawings, expressions, equations, to model addition and subtraction.
5. **Use appropriate tools strategically.** December: Students will use tools such as links, snap cubes, color tiles, dice, dominoes, five and ten frames, number bonds, dot cards, two-color counters and various other counters to look at different combinations of the same number.
6. **Attend to precision.** October: Students attend to the precise language and order of the count sequence. They make sure they use the appropriate name for the quantity. November: Students will use precise counting and precise language to describe attributes of objects.
7. **Look for and make use of structure.** October: Students will apply understanding of numbers 0-10 to count and quantify numbers 0-20. November: Students examine the structure of objects as they sort and compare their characteristics. Matching and counting strategies can be used to determine if one group of objects is greater than, less than, or equal to another groups. December: Students use the structures inherent in composition and decomposition of numbers to build fluency of number combinations within 5 as foundation for addition/subtraction.

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8. **Look for and express regularity in repeated reasoning.** October: Students can apply what they know 0-10 to the next 10 numbers based on the nature of our base-10 system. November: Students will make generalizations about categories of objects based on their attributes. They begin to recognize that two groups with the same quantity of objects in each are equal groups.

OCTOBER / NOVEMBER / DECEMBER

Highlighted Mathematical Practices: (Practices to be explicitly emphasized are indicated with an *.)

1. **Make sense of problems and persevere in solving them.** November: Students make sense of comparison situations through their use of matching and counting strategies.

2. **Reason abstractly and quantitatively.** October: Students will use their understanding of position and quantity to count from any given number. They reason about the value of the numbers as they count quantities of objects and pictures or count out objects.

November: Students will demonstrate abstract reasoning when they compare quantities of objects and determine which group has more, less, or they are equal. They will also consider reasoning for groupings of objects, understanding that objects are grouped together because they possess common attributes and they can be grouped in multiple ways because they possess multiple attributes. December: Students will demonstrate abstract reasoning when recording composition and decomposition with written symbols.

3. **Construct viable arguments and critique the reasoning of others.** October: Students construct arguments when they explain why they believe a quantity should be labeled with a particular number or numeral. They critique each other's reasoning when they explain why they agree or disagree with totals or representations. November: Students discuss and share how objects and quantities are different or alike. They will also construct and critique arguments about whether or not an attribute is measurable or whether an object belongs in a particular group when sorting. December: Students will use different modalities to construct their arguments regarding number quantity and different combinations of number. They will critique each other when they discuss the validity of the various representations.

4. **Model with mathematics.** October: Students will count within 10 and use manipulatives, pictures, symbols, language and real-world situations to create models for each number. November: Students will represent numbers with objects and count groups of objects. They will sort objects with different characteristics into categories. December: . Students will represent number combinations with objects, fingers, drawings, expressions, equations, to model addition and subtraction.

5. **Use appropriate tools strategically.** December: Students will use tools such as links, snap cubes, color tiles, dice, dominoes, five and ten frames, number bonds, dot cards, two-color counters and various other counters to look at different combinations of the same number.

6. **Attend to precision.** October: Students attend to the precise language and order of the count sequence. They make sure they use the appropriate name for the quantity. November: Students will use precise counting and precise language to describe attributes of objects.

Look for and make use of structure. October: Students will apply understanding of numbers 0-10 to count and quantify numbers 0-20.

November: Students examine the structure of objects as they sort and compare their characteristics. Matching and counting strategies can be used to determine if one group of objects is greater than, less than, or equal to another groups. December: Students

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use the structures inherent in composition and decomposition of numbers to build fluency of number combinations within 5 as foundation for addition/subtraction.

8. **Look for and express regularity in repeated reasoning.** *October:* Students can apply what they know 0-10 to the next 10 numbers based on the nature of our base-10 system. *November:* Students will make generalizations about categories of objects based on their attributes. They begin to recognize that two groups with the same quantity of objects in each are equal groups.

○ **DECEMBER / JANUARY / FEBRUARY / MARCH**

Highlighted Mathematical Practices: (Practices to be explicitly emphasized are indicated with an *.)

Make sense of problems and persevere in solving them. *January/February:* Students will make sense of real-world problems by representing the situations using manipulatives, pictures and equations.

- **Reason abstractly and quantitatively.** *December:* Students will demonstrate abstract reasoning when recording composition and decomposition with written symbols. *January/February:* Students will make sense of real-world problems by representing the
- situations using manipulatives, pictures and equations. *February/March:* Students decompose teen numbers into “ten and some more” to see context of base-ten notation.
 - **Construct viable arguments and critique the reasoning of others.** *December:* Students will use different modalities to construct their arguments regarding number quantity and different combinations of number. They will critique each other when they discuss the validity of the various representations. *January/February:* . Students construct arguments regarding the accuracy of their
- representations and critique others’ reasoning when they consider whether they agree or disagree with their representations.
 - **Model with mathematics.** *December:* Students will represent number combinations with objects, fingers, drawings, expressions,
- equations, to model addition and subtraction. *January/February:* Students create visual models of the real-world problems using
 - manipulatives and diagrams. They can also tell stories to represent numerical expressions or equations. *February/March:* Students decompose/compose numbers within 20 to see the structure of 10 within teen numbers and the differences in numbers greater than
- **Use appropriate tools strategically.** *December:* Students will use tools such as links, snap cubes, color tiles, dice, dominoes, five and ten frames, number bonds, dot cards, two-color counters and various other counters to look at different combinations of the same number.
- **Attend to precision.**
- **7. Look for and make use of structure.** *December:* Students use the structures inherent in composition and decomposition of numbers to build fluency of number combinations within 5 as foundation for addition/subtraction. *January/February:* Students exhibit

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- understanding of this practice when they show that the number changes when you add or subtract, except for when adding or subtracting zero. **February/March:** Students learn combinations to 5, combinations to 10 to build knowledge of structure in teen numbers.
- **Look for and express regularity in repeated reasoning.** **January/February:** Students demonstrate repeated reasoning when they show that there are multiple combinations of numbers that equal the same number, and there are multiple strategies to solve addition and subtraction problems