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Operations & Algebraic Thinking	
Represent and solve problems involving addition and subtraction. (1.OA.A) **1.OA.A.1:** Use addition and subtraction within 20 to solve word problems involving situations of adding to, taking from, putting together, taking apart, and comparing, with unknowns in all positions, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem. **1.OA.A.2:** Solve word problems that call for addition of three whole numbers whose sum is less than or equal to 20, e.g., by using objects, drawings, and equations with a symbol for the unknown number to represent the problem.	▪ I can model addition and subtraction word problems using objects, drawings, and equations with unknown numbers in different positions. ▪ I can solve addition and subtraction word problems using objects, drawings, and equations. ▪ I can solve problems with unknown numbers in different positions. ▪ I can model addition and subtraction word problems using objects, drawings, and equations with unknown numbers in different positions. ▪ I can add three whole numbers whose sum is less than or equal to 20. ▪ I can solve word problems with three whole numbers using objects, drawings and equations.
Understand and apply properties of operations and the relationship between addition and subtraction. (1.OA.B) **1.OA.B.3:** Apply properties of operations as strategies to add and subtract.[1] *Examples: If 8 + 3 = 11 is known, then 3 + 8 = 11 is also known. (Commutative property of addition.) To add 2 + 6 + 4, the second two numbers can be added to make a ten, so 2 + 6 + 4 = 2 + 10 = 12. (Associative property of addition.)* **1.OA.B.4:** Understand subtraction as an unknown-addend problem. *For example, subtract 10 – 8 by finding the number that makes 10 when added to 8.*	▪ I can show adding zero to any number does not change the number. ▪ I can show that changing the order of the addends (numbers) does not change the sum (answer). ▪ I can show when adding three numbers in any order, the sum does not change. ▪ I can use properties of operations to add and subtract. ▪ I can give an example and explain how a subtraction equation can be rewritten as an addition equation. ▪ I can rewrite a subtraction equation as an addition equation with a missing addend.
Add and subtract within 20. (1.OA.C) **1.OA.C.5:** Relate counting to addition and subtraction (e.g., by counting on 2 to add 2).	▪ I can add by counting all, counting on, and recognizing that +1 means the next number and +2 means the next, *next* number in the counting sequence. ▪ I can subtract by counting back, counting up from, and recognizing the -1

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1.OA.C.6: Add and subtract within 20, demonstrating fluency for addition and subtraction within 10. Use strategies such as counting on; making ten (e.g., 8 + 6 = 8 + 2 + 4 = 10 + 4 = 14); decomposing a number leading to a ten (e.g., 13 – 4 = 13 – 3 – 1 = 10 – 1 = 9); using the relationship between addition and subtraction (e.g., knowing that 8 + 4 = 12, one knows 12 – 8 = 4); and creating equivalent but easier or known sums (e.g., adding 6 + 7 by creating the known equivalent 6 + 6 + 1 = 12 + 1 = 13).	means the number before and -2 means the number that is two numbers before in the counting sequence. ▪ I can add and subtract within 20 with ease. ▪ I can add and subtract within 20 by counting on and making ten. ▪ I can add and subtract within 20 by using the relationship between addition and subtraction. ▪ I can add and subtract within 20 by using equation but easier numbers.
Work with addition and subtraction equations. (1.OA.D) **1.OA.D.7:** Understand the meaning of the equal sign, and determine if equations involving addition and subtraction are true or false. *For example, which of the following equations are true and which are false? 6 = 6, 7 = 8 – 1, 5 + 2 = 2 + 5, 4 + 1 = 5 + 2.* **1.OA.D.8:** Determine the unknown whole number in an addition or subtraction equation relating three whole numbers. *For example, determine the unknown number that makes the equation true in each of the equations 8 + ? = 11, 5 = □ – 3, 6 + 6 = □.*	▪ I can explain that the equal sign means "same as". ▪ I can compare the value of both sides of an equation and determine whether the equation is true or false. ▪ I can determine the unknown value in an addition or subtraction equation when two out of three of the numbers in the equation are given.
Numbers & Operations in Base Ten	
Extend the counting sequence. (1.NBT.A) **1.NBT.A.1:** Count to 120, starting at any number less than 120. In this range, read and write numerals and represent a number of objects with a written numeral.	▪ I can count to 120. ▪ I can count to 120 starting from any number. ▪ I can read any number up to 120. ▪ I can write any number up to 120. ▪ I can label a set of objects up to 120 with the written numeral.
Understand place value. (1.NBT.B) **1.NBT.B.2:** Understand that the two digits of a two-digit number represent	▪ I can represent 10 as ten ones. ▪ I can represent the numbers 11 to 19 as a ten and some ones. ▪ I can represent multiple sets of ten using number names (2 tens is 20).

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amounts of tens and ones. Understand the following as special cases: **a.** 10 can be thought of as a bundle of ten ones — called a "ten." **b.** The numbers from 11 to 19 are composed of a ten and one, two, three, four, five, six, seven, eight, or nine ones. **c.** The numbers 10, 20, 30, 40, 50, 60, 70, 80, 90 refer to one, two, three, four, five, six, seven, eight, or nine tens (and 0 ones). **1.NBT.B.3:** Compare two two-digit numbers based on meanings of the tens and ones digits, recording the results of comparisons with the symbols >, =, and <.	▪ I can explain the value of each digit in a two-digit number (place value). ▪ I can determine when a two-digit number is greater than, less, than, or equal to another two-digit number. ▪ I can explain why a two-digit number is greater than, less than, or equal to another two-digit number. ▪ I can record the comparison using the symbols >, <, and =.
Use place value understanding and properties of operations to add and subtract. (1.NBT.C) **1.NBT.C.4:** Add within 100, including adding a two-digit number and a one-digit number, and adding a two-digit number and a multiple of 10, using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written method and explain the reasoning used. Understand that in adding two-digit numbers, one adds tens and tens, ones and ones; and sometimes it is necessary to compose a ten. **1.NBT.C.5:** Given a two-digit number, mentally find 10 more or 10 less than the number, without having to count; explain the reasoning used. **1.NBT.C.6:** Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences), using concrete models or drawings and strategies based on place value, properties of operations, and/or the relationship between addition and subtraction; relate the strategy to a written	▪ I can use concrete models or drawing to show a strategy based on place value to add the following: • a two-digit number and a one-digit number • a two-digit number and a multiple of 10. • A two-digit number and a two-digit number. ▪ I can write down and explain the steps that I followed as I used the concrete models or drawing to show how I added. ▪ I can mentally find 10 more for any two-digit number. ▪ I can mentally find 10 less for any two-digit number. ▪ I can explain why the tens digit increases or decreases by 1 when 10 is added or subtracted. ▪ I can subtract a multiple of 10 from a multiple of 10. ▪ I can explain my strategy for subtracting a multiple of 10 from a multiple of 10. ▪ I can explain how subtracting by a multiple of ten is related to subtracting the tens digit.

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method and explain the reasoning used.	
Measurement & Data	
Measure lengths indirectly and by iterating length units. (1.MD.A) **1.MD.A.1:** Order three objects by length; compare the lengths of two objects indirectly by using a third object. **1.MD.A.2:** Express the length of an object as a whole number of length units, by laying multiple copies of a shorter object (the length unit) end to end; understand that the length measurement of an object is the number of same-size length units that span it with no gaps or overlaps. *Limit to contexts where the object being measured is spanned by a whole number of length units with no gaps or overlaps.*	▪ I can recognize when an object is longer or shorter than another object. ▪ I can organize three objects by length in order from shortest to longest. ▪ I can compare the lengths of two objects by using a third object. ▪ I can explain how to use a shorter object to measure the length of a longer object and explain why it is important to avoid gaps and overlaps. ▪ I can report the length of an object as the total number of shorter objects it takes to span the longer object without gaps and overlaps. ▪ I can represent the length of the longer object with a whole number.
Tell and write time. (1.MD.B) **1.MD.B.3:** Tell and write time in hours and half-hours using analog and digital clocks.	▪ I can identify a digit and an analog clock. ▪ I can identify the hours and minutes on a digital and analog clock. ▪ I can tell how many minutes are in an hour. ▪ I can explain why 30 minutes is a half-hour. ▪ I can look at the time on an analog clock (when the hour hand is pointing to 12 or 6), say what time it is , and write the time as it would appear on a digital clock. ▪ I can look at the time on a digital clock (when the minutes are displayed as :00 or :30), say what time it is and draw in the hands on an analog clock. ▪ I can write the time and draw in the hands on an analog clock when someone tells me what time it is (when the time is stated as "_o'clock" or "_thirty" or "half-past _).

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Represent and interpret data. (1.MD.C) **1.MD.C.4:** Organize, represent, and interpret data with up to three categories; ask and answer questions about the total number of data points, how many in each category, and how many more or less are in one category than in another.	▪ I can organize data in up to three categories (groups). ▪ I can represent data in up to three categories. ▪ I can answer questions about the total number of data points and how many data points are in each category. ▪ I can determine when a category has more or less than another category.
Geometry	
Reason with shapes and their attributes. (1.G.A) **1.G.A.1:** Distinguish between defining attributes (e.g., triangles are closed and three-sided) versus non-defining attributes (e.g., color, orientation, overall size); build and draw shapes to possess defining attributes. **1.G.A.2:** Compose two-dimensional shapes (rectangles, squares, trapezoids, triangles, half-circles, and quarter-circles) or three-dimensional shapes (cubes, right rectangular prisms, right circular cones, and right circular cylinders) to create a composite shape, and compose new shapes from the composite shape. **1.G.A.3:** Partition circles and rectangles into two and four equal shares, describe the shares using the words *halves, fourths,* and *quarters,* and use the phrases *half of, fourth of,* and *quarter of.* Describe the whole as two of, or four of the shares. Understand for these examples that decomposing into more equal shares creates smaller shares.	▪ I can explain the difference between defining attributes (e.g., sides, angles, faces) and non-defining attributes (e.g., color, orientations, overall size). ▪ I can construct and draw a shape when given defining attributes. ▪ I can identify two-dimensional and three-dimensional shapes. ▪ I can create new shapes using two-dimensional and/or three-dimensional shapes. ▪ I can partition (divide) a circle and rectangle into two and four equal parts. ▪ I can describe the equal parts of a circle and rectangle with words (halves, fourths, and quarters). ▪ I can describe the whole by the number of equal parts (e.g., two halves make a whole). ▪ I can explain the more equal parts in a given shape, the smaller the parts.

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The Standards for Mathematical Practice

The standards for mathematical practice are really about teaching students to think and act like mathematicians and problem solvers:

1. Make sense of problems and persevere in solving them.
   What it means: Understand the problem, find a way to attack it, and work until it is done. Basically, you will find practice standard #1 in every math problem, every day. The hardest part is pushing students to solve tough problems by applying what they already know and to monitor themselves when problem-solving.

2. Reason abstractly and quantitatively
   What it means: Get ready for the words *contextualize* and *decontextualize*. If students have a problem, they should be able to break it apart and show it symbolically, with pictures, or in any way other than the standard algorithm. Conversely, if students are working a problem, they should be able to apply the "math work" to the situation.

3. Construct viable arguments and critique the reasoning of others.
   What it means: Be able to talk about math, using mathematical language, to support or oppose the work of others.

4. Model with mathematics.
   What it means: Use math to solve real-world problems, organize data, and understand the world around you.

5. Use appropriate tools strategically.
   What it means: Students can select the appropriate math tool to use and use it correctly to solve problems. In the real world, no one tells you that it is time to use the meter stick instead of the protractor.

6. Attend to precision
   What it means: Students speak and solve mathematics with exactness and meticulousness.

7. Look for and make use of structure
   What it means: Find patterns and repeated reasoning that can help solve more complex problems. For young students this might be recognizing fact families, inverses, or the distributive property. As students get older, they can break apart problems and numbers into familiar relationships.

8. Look for and express regularity in repeated reasoning.
   What it means: Keep an eye on the big picture while working out the details of the problem. You don't want kids that can solve the one problem you've given them; you want students who can generalize their thinking.

   To hear an explanation of the importance of these standards for mathematical practices, watch this video from the Hunt Institute:
   https://www.youtube.com/watch?v=m1rxkW8ucAI&list=PLD7F4C7DE7CB3D2E6