Essential Standard - Standard should be taught in depth - These are the major work of the grade level Supporting Standard- Support essential standards -Students need an intermediate understanding of these standards

## Additional Standard- Students need a basic foundation of these standards

Not all content in a given grade is emphasized equally in the Standards. Some clusters require greater emphasis than others based on the depth of the ideas, the time they take to master and/or their importance to future mathematics or the demands of college and career readiness. More time in these areas is also necessary for students to meet the Standards for Mathematical Practice (SMP). To say that some things have greater emphasis is not to say that anything in the Standards can safely be neglected in instruction. Neglecting material will leave gaps in student skill and understanding and may leave students unprepared for the challenges of a later grade. https://achievethecore.org/

## Quarter 1

## Standards for Mathematical Practice

## 2-3 Standards for Mathematical Practice Posters

1. Make sense of problems and persevere in solving them
2. Reason abstractly and quantitatively
3. Construct viable arguments and 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

## CC.2.2.2.A. 2 Use mental strategies to add and subtract within 20 (PA Core-NWEA)

| Operations and <br> Algebraic Thinking | 2.OA.B. 2 | Fluently add and subtract within 20 using mental strategies. By the end of grade 2, know from memory all sums of two one-digit numbers. *Required Fluency for Grade 2* |
| :---: | :---: | :---: |
| CC.2.1.2.B. 1 Use place value concepts to represent amounts of hundreds, tens and ones and compose three-digit numbers (PA Core - NWEA) |  |  |
| Number and Operations in Base 10 | 2.NBT.A. 1 | Understand that the three digits of a three-digit number represent amounts of hundreds, tens and ones. |
|  | 2.NBT.A.1.A | Understand that 100 can be thought of as a bundle of ten tens - called a "hundred". |
|  | 2.NBT.A.1.B | Understand that the numbers 100-900 refer to one-nine hundreds, zero tens and zero ones. |

CC.2.2.2.A. 1 Represent and solve problems involving addition and subtraction within 100 (PA Core-NWEA)

| Operations | 2.OAA1 | Use addition and subtraction within 100 to solve one and two-step word <br> problems involving situations of adding to, putting together and comparing with |
| :---: | :--- | :--- |
| Algebraic <br> Thinking |  | unknown in all positions e.g., by using drawings and equations with a symbol for <br> the unknown number to represent the problem. |

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## Quarter 2

## Standards for Mathematical Practice

## 2-3 Standards for Mathematical Practice Posters

1. Make sense of problems and persevere in solving them
2. Reason abstractly and quantitatively
3. Construct viable arguments and reasoning of others
4. Model with mathematics reasoning
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
CC.2.1.2.B. 2 Use place value concepts to read, write and skip count to 1,000 (PA Core-NWEA)

| Number and Operations in Base Ten | 2.NBT.A. 2 | Count within 1,000 ; skip count by $5 \mathrm{~s}, 10 \mathrm{~s}$ and 100s. |
| :---: | :---: | :---: |
|  | 2.NBT.A. 3 | Read and write numbers to 1,000 using base ten numerals, number names and expanded form. |
|  | 2.NBT.A. 4 | Compare two, three-digit numbers based on meanings of the hundreds, tens and ones digits using <, =, > symbols to record the result of the comparisons. |

CC.2.1.2.B.3 Use place value concepts and properties of operations to add and subtract within 1,000 (PA Core- NWEA)

| Number and <br> Operations in <br> Base Ten | 2.NBT.B.5 | Fluently add and subtract within 100 using strategies based on place value, <br> properties of operations, and/or the relationship between addition and <br> subtraction *Required Fluency for Grade 2* |
| :--- | :--- | :--- |
|  | 2.NBT.B.6 | Add up to four two-digit numbers using strategies based on place value and <br> properties of operations. |
|  | 2.NBT.B.7 | Add and subtract within 1,000 using concrete models or drawings and strategies <br> based on place value, order of operations and/or the relationship between <br> addition and subtraction; relate the strategy to a written method. Understand <br> that in adding or subtracting three-digit numbers, one adds or subtracts <br> hundreds and hundreds, tens and tens, ones and ones and sometimes it is <br> necessary to compose or decompose tens or hundreds. |

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Supporting Standard- Support essential standards -Students need an intermediate understanding of these standards

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|  | 2.NBT.B.8 | Mentally add 10 or 100 to a given number 100-900 and mentally subtract 10 or <br> 100 from a given number 100-900. |
| :---: | :---: | :--- |
|  | 2.NBT.B.9 | Explain why addition and subtraction strategies work, using place value and the <br> properties of operations through drawings or objects. |
| CC.2.2.2.A.2 Use mental strategies to add and subtract within 20 (PA Core-NWEA) |  |  |
| Operations <br> and <br> Algebraic <br> Thinking | 2.OA.B.2 | Fluently add and subtract within 20 using mental strategies. By the end of <br> grade 2, know from memory all sums of two one-digit numbers. *Required |
| CC.2.2.2.A.1 Represent and solve problems involving addition and subtraction within 100 (PA Core- <br> NWEA) | Fluency for Grade 2* |  |

## Essential Standard - Standard should be taught in depth - These are the major work of the grade level

 Supporting Standard- Support essential standards -Students need an intermediate understanding of these standards
## Additional Standard- Students need a basic foundation of these standards

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## Quarter 3

## Standards for Mathematical Practice

2-3 Standards for Mathematical Practice Posters

1. Make sense of problems and persevere in solving them
2. Reason abstractly and quantitatively
3. Construct viable arguments and 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
CC.2.4.2.A. 1 Measure and estimate lengths in standard units using appropriate tools (PA Core NWEA)

| Measurement <br> and Data | 2.MD.A.1 | Measure the length of an object by selecting and using appropriate tools such as <br> rulers, yardsticks, meter sticks and measuring tapes. |
| :---: | :---: | :--- |
|  | 2.MD.A.2 | Measure the length of an object twice, using length units of different lengths for <br> the two measurements. Describe how the two measurements relate to the size <br> of the unit chosen. |
|  | 2.MD.A.3 | Estimate lengths using units of inches, feet, centimeters and meters. |
|  | 2.MD.A.4 | Measure to determine how much longer one object is than another, expressing <br> the length difference in terms of a standard length unit. |

CC.2.4.2.A. 6 Extend the concepts of addition and subtraction to problems involving length (PA Core- NWEA)

Measurement and Data
2.MD.B.5 $\quad$ Use addition and subtraction within 100 to solve word problems involving lengths that are given in the same units e.g., by using drawings (such as drawings of rulers) and equations with a symbol for the unknown number to represent the problem.
2.MD.B.6 Represent whole numbers as lengths from 0 on a number line diagram with equally spaced points corresponding to the numbers $0,1,2$ etc.; represent whole number sums and differences within 100 on a number line diagram.

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Supporting Standard- Support essential standards -Students need an intermediate understanding of these standards Additional Standard- Students need a basic foundation of these standards

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CC.2.4.2.A.4 Represent and interpret data using line plots, picture graphs and bar graphs (PA CoreNWEA)

| Measurement <br> and Data | 2.MD.D.9 | Generate measurements data by measuring lengths of several objects to the <br> nearest whole unit, or by making repeated measurements of the same objects. <br> Show the measurements by making a line plot, where the horizontal scale is <br> marked off in whole-number units. |
| :---: | :---: | :--- |
|  | 2.MD.D.10 | Draw a picture graph and a bar graph (with single unit scale) to represent a <br> data set with up to four categories. |
|  | 2.MD.D.10.A | Solve simple put-together, take-apart and compare problems using information <br> presented in a bar graph. |

CC.2.4.2.A.3 Solve problems and make changes using coins and paper currency with appropriate symbols (PA Core -NWEA)

| Measurement <br> and Data | 2.MD.C.8 | Solve word problems involving dollar bills, quarters, dimes, nickels, and <br> pennies using $\$$ and cents symbols appropriately. |
| :---: | :---: | :--- |
|  | 2.MD.C.9 | Determine equivalent coins. |

CC.2.4.2.A. 2 Tell and write time to the nearest five minutes using both analog and digital clocks (PA Core - NWEA)

| Measurement <br> and Data | 2.MD.C.7 | Tell and write time from analog and digital clocks to the nearest five minutes <br> using a.m. and p.m. |
| :---: | :---: | :--- |

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## CC.2.2.2.A. 2 Use mental strategies to add and subtract within 20 (PA Core-NWEA)

| Operations <br> and <br> Algebraic Thinking | 2.0A.B. 2 | Fluently add and subtract within 20 using mental strategies. By the end of grade 2, know from memory all sums of two one-digit numbers. *Required Fluency for Grade 2* |
| :---: | :---: | :---: |
| CC.2.2.2.A. 1 Represent and solve problems involving addition and subtraction within 100 (PA CoreNWEA) |  |  |
| Operations <br> and <br> Algebraic <br> Thinking | 2.OA.A. 1 | Use addition and subtraction within 100 to solve one and two-step word problems involving situations of adding to, putting together and comparing with unknown in all positions e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. |

(PA Core- NWEA)

| Number and Operations in Base Ten | 2.NBT.B. 5 | Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction *Required Fluency for Grade 2* |
| :---: | :---: | :---: |
|  | 2.NBT.B. 6 | Add up to four two-digit numbers using strategies based on place value and properties of operations. |
|  | 2.NBT.B. 7 | Add and subtract within 1,000 using concrete models or drawings and strategies based on place value, order of operations and/or the relationship between addition and subtraction; relate the strategy to a written method. Understand that in adding or subtracting three-digit numbers, one adds or subtracts hundreds and hundreds, tens and tens, ones and ones and sometimes it is necessary to compose or decompose tens or hundreds. |
|  | 2.NBT.B. 8 | Mentally add 10 or 100 to a given number 100-900 and mentally subtract 10 or 100 from a given number 100-900. |
|  | 2.NBT.B. 9 | Explain why addition and subtraction strategies work, using place value and the properties of operations through drawings or objects. |

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## Quarter 4

## Standards for Mathematical Practice

2-3 Standards for Mathematical Practice Posters

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

CC.2.2.2.A.3 Work with equal groups of objects to gain foundations for multiplication (PA Core-NWEA)

| Operations <br> and Algebraic <br> Thinking | 2.OA.C.3 | Determine whether a group of objects (up to 20) has an odd or even number of <br> members, e.g., by paring objects or counting them by 2 s . Write an equation to <br> express an even number as a sum of two equal addends. |
| :---: | :---: | :--- |
|  | 2.OA.C.4 | Use addition to find the total number of objects arranged in rectangular arrays <br> with up to 5 rows and up to 5 columns. Write an equation to express the total <br> number of objects in a rectangular array as a sum of equal addends. |

CC.2.3.2.A.1 Analyze and draw two and three-dimensional shapes having specific attributes (PA Core- NWEA)

Geometry $\quad$ 2.G.A.1 $\quad$ Recognize and draw shapes having specified attributes such as a given number of angles or a given number of equal faces. Identify triangles, quadrilaterals, pentagons, hexagons and cubes.
2.G.A. 2 Partition a rectangle into rows and columns of same-sized squares and count to find the total number of them.
CC.2.3.2.A. 2 Use the understanding of fractions to partition shapes into halves, quarters and thirds (PA Core-NWEA)

Geometry $\quad$ 2.G.A.3 $\quad$ Partition circles and rectangles unto two, three or four equal shares. Describe the shares using the words, halves, thirds, half of, third of etc., and describe the whole as two halves, three thirds, four fourths. Recognize that equal shares of identical wholes need not have the same shape.

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## CC.2.2.2.A. 2 Use mental strategies to add and subtract within 20 (PA Core-NWEA)

| Operations <br> and Algebraic <br> Thinking | 2.OA.B.2 | Fluently add and subtract within 20 using mental strategies. By the end of <br> grade 2, know from memory all sums of two one-digit numbers. *Required |
| :---: | :---: | :--- |
| Fluency for Grade 2* |  |  |

CC.2.2.2.A. 1 Represent and solve problems involving addition and subtraction within 100 (PA CoreNWEA)

| Operations and Algebraic Thinking | 2.OA.A. 1 | Use addition and subtraction within 100 to solve one and two-step word problems involving situations of adding to, putting together and comparing with unknown in all positions e.g., by using drawings and equations with a symbol for the unknown number to represent the problem. |
| :---: | :---: | :---: |
| CC.2.1.2.B.3 Use place value concepts and properties of operations to add and subtract within 1,000 (PA Core- NWEA) |  |  |
| Number and Operations in Base Ten | 2.NBT.B. 5 | Fluently add and subtract within 100 using strategies based on place value, properties of operations, and/or the relationship between addition and subtraction *Required Fluency for Grade 2* |
|  | 2.NBT.B. 6 | Add up to four two-digit numbers using strategies based on place value and properties of operations. |
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|  | 2.NBT.B. 8 | Mentally add 10 to a given number 100-900 and mentally subtract 10 or 100 from a given number 100-900. |
|  | 2.NBT.B. 9 | Explain why addition and subtraction strategies work, using place value and the properties of operations through drawings or objects. |

