

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

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|---|--|
| 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.2.3.3.A.1 Identify, compare and classify shapes and their attributes (PA Core – NWEA)

Geometry	3.G.A.1	Understand that shapes in different categories (e.g. rhombuses, rectangles and other) may share attributes (e.g. having four sides) and that the shared attributes can define a larger category (e.g. quadrilaterals).
	3.G.A.1.A	Recognize rhombuses, rectangles and squares as examples of quadrilaterals and draw examples of quadrilaterals that do not belong to any of these subcategories.

CC.2.4.3.A.2 Tell and write time to the nearest minute and solve problems by calculating time intervals (PA Core-NWEA)

Measurement and Data	3.MD.A.1	Tell and write time to the nearest minute and measure time intervals in minutes. Solve word problems involving addition and subtraction of time intervals in minutes.
		Solve elapsed-time word problems involving counting backward by both hours and minutes.
		Solve elapsed-time word problems involving counting forward by both hours and minutes.

CC.2.1.3.B.1 Apply place value understanding and properties of operations to perform multi-digit arithmetic (PA Core – NWEA)

	3.NBT.1	Identify, recognize and write numbers through the hundred thousand place value.
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Number and Operations in Base 10	3.NBT.2	Record whole numbers using words.
	3.NBT.3	Compare and order whole numbers.
	3.NBTA.1	Use place value understanding to round whole numbers to the nearest 10 or 100.
	3.NBT.A.2	Fluently add and subtract within 1000 using a range of strategies and algorithms based on place value, properties of operations and/or the relationship between addition and subtraction.

CC.2.4.3.A.3 Solve problems involving money using a combination of coins and bills (PA Core – NWEA)

Measurement and Data	(PA Core only No CCSS Standard)	Compare total values of combinations of coins (penny, nickel, dime and quarter) and/or dollar bills less than \$5.00.
		Make change for an amount up to \$5.00 with no more than \$2.00 change given (penny, nickel, dime, quarter and dollar).
		Round amounts of money to the nearest dollar.

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Quarter 2

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CC.2.2.3.A.2 Understand properties of multiplication and the relationship between multiplication and division (PA Core- NWEA)

Operations and Algebraic Thinking	3.OA.B.5	Apply properties of operations as strategies to multiply and divide.
	3.OA.B.6	Understand division as an unknown-factor problem.

CC.2.4.3.A.4 Represent and interpret data using tally charts, tables, pictographs, line plots and bar graphs (PA Core – NWEA)

Measurement and Data	3.MD.3	Draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. Solve one and two-step “how many more” and “how many less” problems using information presented in scaled bar graphs. For example, draw a bar graph in which each square in the bar graph might represent 5 pets.
	3.MD.4	Generate measurement data by measuring lengths using rulers marked with halves and fourths of an inch. Show the data by making a line plot, where the horizontal scale is marked off in appropriate units-whole numbers, halves or quarters.

CC.2.2.3.A.3 Demonstrate multiplication and division fluency within 100 (PA Core – NWEA)

Operations and Algebraic Thinking	3.OA.C.7	Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division. By the end of Gr. 3 know from memory all products of two one-digit numbers *Required Fluency for Grade 3*
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CC.2.2.3.A.1 Represent and solve problems involving multiplication and division (PA Core – NWEA)		
Operations and Algebraic Thinking	3.OA.A.1	Interpret products of whole numbers.
	3.OA.A.2	Interpret whole-number quotients of whole numbers.
	3.OA.A.3	Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays and measurement quantities.
	3.OA.A.4	Determine the unknown whole number in a multiplication or division equation relating three whole numbers.
CC.2.1.3.B.1 Apply place value understanding and properties of operations to perform multi-digit arithmetic (PA Core – NWEA)		
Numbers and Operations in Base Ten	3.NBT.A.3	Multiply one-digit whole numbers by multiples of 10 in the range 10-90 using strategies based on place value and properties of operations.

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CC.2.4.3.A.5 Determine the area of a rectangle and apply the concept to multiplication and addition (PA Core – NWEA)

Measurement and Data	3.MD.C.5	Recognize area as an attribute of plane figures and understand concepts of area measurement.
	3.MD.C.5.A	A square with a side length 1 unit, called “a unit square”, is said to have “one square unit” of area and can be used to measure area.
	3.MD.C.5.B	A plane figure which can be covered without gaps or overlaps by n unit squares is said to have an area of n square units.
	3.MD.C.6	Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).
	3.MD.C.7	Relate area to the operations of multiplication and addition.
	3.MD.C.7.A	Find the area of a rectangle with whole-number side lengths by tiling it and show that the area is the same as would be found by multiplying side lengths.
	3.MD.C.7.B	Multiply side lengths to determine areas of rectangles with whole number side lengths in the context of solving real world and mathematical problems.
	3.MD.C.7.C	Use tiling to show in a concrete case that the area of a rectangle with whole number side lengths a and $b + c$ is the sum of $a \times b$ and $a \times c$. Use area models to represent the distributive property in mathematical reasoning.

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	3.MD.C.7.D	Recognize areas as additive. Find areas of rectilinear figures by decomposing them into non-overlapping rectangles and adding the areas of the non-overlapping parts, applying this technique to solve real world problems.
CC.2.2.3.A.4 Solve problems involving the four operations and identify and explain patterns in arithmetic (PA Core -NWEA)		
Operations and Algebraic Thinking	3.OA.D.8	Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. e.g., (n, a, x)
	3.OA.D.8.A	Assess the reasonableness of answers using mental computation and estimation strategies including rounding.
	3.OA.D.9	Identify arithmetic patterns (including patterns in the addition table or multiplication table) and explain them using properties and operations.
CC.2.2.3.A.3 Demonstrate multiplication and division fluency within 100 (PA Core-NWEA)		
Operations and Algebraic Thinking	3.OA.C.7	Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division. By the end of Gr. 3 know from memory all products of two one-digit numbers *Required Fluency for Grade 3*
CC.2.4.3.A.6 Solve problems involving perimeters of polygons and distinguish between linear and area measures (PA Core – NWEA)		
Measurement and Data	3.MD.D.8	Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length given the perimeter and exhibiting rectangles with the same perimeter and different areas or with the same area and different perimeters.

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CC.2.1.3.C.1 Explore and develop an understanding of fractions as numbers (PA Core -NWEA)

Number and Operations Fractions	3.NF.A.1	Understand a fraction $1/b$ as the quantity formed by 1 part when a whole is partitioned into b equal parts; understand a fraction a/b as the quantity formed by a parts of a size $1/b$.
	3.NF.A.2	Understand a fraction as a number on the number line; represent fractions on a number line diagram.
	3.NF.A.2.A	Represent a fraction $1/b$ on a number line diagram by defining the interval from 0 to 1 as the whole and partitioning it into b equal parts. Recognize that each part has size $1/b$ and that the endpoint of the part based at 0 locates the number $1/b$ on the number line
	3.NF.A.2.B	Represent a fraction a/b on a number line diagram by marking off “ a ” lengths $1/b$ from 0. Recognize that the resulting interval has size a/b and that its endpoint locates the number a/b on the number line.
	3.NF.A.3	Explain equivalence of fractions in special cases and compare fractions by reasoning about their size.
	3.NF.A.3.A	Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line.
	3.NF.A.3.B	Recognize and generate simple equivalent fractions. Explain why the fractions are equivalent, e.g., by using a visual fraction model.

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	2.NF.A.3.C	Express whole numbers as fractions and recognize fractions that are equivalent to whole numbers.
	3.NF.A.3.D	Compare two fractions with the same numerator or the same denominator by reasoning about their size. Recognize that comparisons are valid only when the two fractions refer to the same whole. Record the results of comparison with the symbols $<$, $=$, $>$. Justify the conclusions, e.g., by using a visual fraction model.
<i>CC.2.4.3.A.1 Solve problems involving measurement and estimation of temperature, liquid volume, mass and length (PA Core-NWEA)</i>		
Measurement and Data	3.MD.A.2	Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). Add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes that are given in the same units, e.g., by using drawings to represent the problem
<i>CC.2.2.3.A.3 Demonstrate multiplication and division fluency within 100 (PA Core-NWEA)</i>		
Operations and Algebraic Thinking	3.OA.C.7	Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division. By the end of Gr. 3 know from memory all products of two one-digit numbers *Required Fluency for Grade 3*
<i>CC.2.3.3.A.2 Use the understanding of fractions to partition shapes into parts with equal areas and express the area of each part as a unit fraction of the whole. (PA Core-NWEA)</i>		
Geometry	3.G.A.2	Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole.