Common Core Math Standards
Grade 3

Common Core Standards	**Converted/Unpacked Standards**	
Standards Code: OA=Operations and Algebraic Thinking, NBT=Number and Operations in Base 10, MD=Measurements and Data, G=Geometry, NF=Number and Operations-Fractions, RP=Rations and Proportional Relationships, NS= Number System, EE=Expressions and Equations, SP=Statistics and Probability, A=Algebra.		
CC.3.OA.1 Represent and solve problems involving multiplication and division. Interpret products of whole numbers, e.g., interpret 5 × 7 as the total number of objects in 5 groups of 7 objects each. For example, describe a context in which a total number of objects can be expressed as 5 × 7.	I can demonstrate products of whole numbers. (CCSS: 3.OA.1)	
CC.3.OA.2 Represent and solve problems involving multiplication and division. Interpret whole-number quotients of whole numbers, e.g., interpret 56 ÷ 8 as the number of objects in each share when 56 objects are partitioned equally into 8 shares, or as a number of shares when 56 objects are partitioned into equal shares of 8 objects each. For example, describe a context in which a number of shares or a number of groups can be expressed as 56 ÷ 8.	I can demonstrate whole-number quotients of whole numbers. (CCSS: 3.OA.2)	
CC.3.OA.3 Represent and solve problems involving multiplication and division. Use multiplication and division within 100 to solve word problems in situations involving equal groups, arrays, and measurement quantities, e.g., by using drawings and equations with a symbol for the unknown number to represent the problem.	I can determine when to multiply and divide in word problems. (CCSS: 3.OA.3) I can represent multiplication and division word problems using drawings and equations with unknowns in all positions. (CCSS: 3.OA.3) I can solve word problems involving equal groups, arrays, and measurement quantities using drawings and equations. (CCSS: 3.OA.3)	
CC.3.OA.4 Represent and solve problems involving multiplication and division. Determine the unknown whole number in a multiplication or division equation relating three whole numbers. For example, determine the unknown number that makes the equation true in each of the equations 8 × ? = 48, 5 = __ ÷ 3, 6 × 6 = ?.	I can determine the unknown whole number in a multiplication or division problems. (CCSS: 3.OA.4)	
CC.3.OA.5 Understand properties of multiplication and the relationship between multiplication and division. Apply properties of operations as strategies to multiply and divide. Examples: If 6 × 4 = 24 is known, then 4 × 6 = 24 is also known. (Commutative property of multiplication.) 3 × 5 × 2 can be found by 3 × 5 = 15 then 15 × 2 = 30, or by 5 × 2 = 10 then 3 × 10 = 30. (Associative property of multiplication.) Knowing that 8 × 5 = 40 and 8 × 2 = 16, one can find 8 × 7 as 8 × (5 + 2) = (8 × 5) + (8 × 2) = 40 + 16 = 56. (Distributive property.) (Students need not use formal terms for these properties.)	I can explain and apply the commutative, associative, and distributive properties of multiplication. (CCSS: 3.OA.5) I can decompose, regroup, and reorder factors to make it easier to multiply. (CCSS: 3.OA.5) I can explain how the multiplication properties may or may not relate to division. (CCSS: 3.OA.5)	

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CC.3.OA.6 Understand properties of multiplication and the relationship between multiplication and division. Understand division as an unknown-factor problem. For example, divide 32 ÷ 8 by finding the number that makes 32 when multiplied by 8.	I can explain the relationship between multiplication and division. (CCSS: 3.OA.6) I can turn a division problem into a muliplication problems with an unknown factor. (CCSS: 3.OA.6)	
CC.3.OA.7 Multiply and divide within 100. Fluently multiply and divide within 100, using strategies such as the relationship between multiplication and division (e.g., knowing that 8 × 5 = 40, one knows 40 ÷ 5 = 8) or properties of operations. By the end of Grade 3, know from memory all products of one-digit numbers.	I can multiply any two numbers with a product within 100 by choosing the correct strategies. (CCSS: 3.OA.7) I can instantly recall my multiplication facts. (CCSS: 3.OA.7) I can divide any two numbers with a quotient within 100 by choosing the correct strategies. (CCSS: 3.OA.7)	
CC.3.OA.8 Solve problems involving the four operations, and identify and explain patterns in arithmetic. Solve two-step word problems using the four operations. Represent these problems using equations with a letter standing for the unknown quantity. Assess the reasonableness of answers using mental computation and estimation strategies including rounding. (This standard is limited to problems posed with whole numbers and having whole-number answers; students should know how to perform operations in the conventional order when there are no parentheses to specify a particular order (Order of Operations).)	I can solve two-step word problems using the four operations. (CCSS: 3.OA.8) I can write equations using a letter for the unknown number. (CCSS: 3.OA.8) I can decide if my answers are reasonable using mental math and estimation strategies. (CCSS: 3.OA.8) I can solve problems using the Order of Operations. (CCSS: 3.OA.8)	
CC.3.OA.9 Solve problems involving the four operations, and identify and explain patterns in arithmetic. Identify arithmetic patterns (including patterns in the addition table or multiplication table), and explain them using properties of operations. For example, observe that 4 times a number is always even, and explain why 4 times a number can be decomposed into two equal addends.	I can identify arithmetic patterns in number charts, addition tables, and multiplication tables. (CCSS: 3.OA.9) I can explain arithmetic patterns using properties of operations. (CCSS: 3.OA.9)	
CC.3.NBT.1 Use place value understanding and properties of operations to perform multi-digit arithmetic. Use place value understanding to round whole numbers to the nearest 10 or 100.	I can identify place value up to the thousands. (CCSS: 3.NBT.1) I can use place value to round whole numbers to the nearest 10 or 100. (CCSS: 3.NBT.1)	
CC.3.NBT.2 Use place value understanding and properties of operations to perform multi-digit arithmetic. Fluently add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction. (A range of algorithms may be used.)	I can add and subtract within 1000 using strategies and algorithms based on place value, properties of operations, and/or the relationship between addition and subtraction. (CCSS: 3.NBT.2)	
CC.3.NBT.3 Use place value understanding and properties of operations to perform multi-digit arithmetic. Multiply one-digit whole numbers by multiples of 10 in the range 10-90 (e.g., 9 × 80, 5 × 60) using strategies based on place value and properties of operations. (A range of algorithms may be used.)	I can multiply one-digit whole numbers by multiples of 10 using strategies based on place value and properties of operations. (CCSS: 3.NBT.3)	

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CC.3.NF.1 Develop understanding of fractions as numbers. 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 size 1/b. (Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.)		
CC.3.NF.2 Develop understanding of fractions as numbers. Understand a fraction as a number on the number line; represent fractions on a number line diagram. (Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.)		
CC.3.NF.2a 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. (Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.)	I can describe a fraction as a number on the number line. (CCSS: 3.NF.2) I can represent fractions on a number line diagram. (CCSS: 3.NF.2)	
CC.3.NF.2b 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. (Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.)	I can divide a number line into parts of a whole to represent a fraction . (CCSS: 3.NF.2) I can identify a fraction on a number line. (CCSS: 3.NF.2) I can divide a number line into the parts of a given fraction a/b. (CCSS: 3.NF.2) I can explain how the parts represent the fraction a/b. (CCSS: 3.NF.2)	
CC.3.NF.3 Develop understanding of fractions as numbers. Explain equivalence of fractions in special cases, and compare fractions by reasoning about their size. (Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.)	I can explain equivalent fractions.(CCSS: 3.NF.3) I can compare fractions by explaining their size. (CCSS: 3.NF.3)	
CC.3.NF.3a Understand two fractions as equivalent (equal) if they are the same size, or the same point on a number line. (Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.)	I can identify two fractions as equivalent (equal) if they are the same size, or the same point on a number line. (CCSS: 3.NF.3a)	
CC.3.NF.3b Recognize and generate simple equivalent fractions (e.g., 1/2 = 2/4, 4/6 = 2/3), Explain why the fractions are equivalent, e.g., by using a visual fraction model. (Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.)	I can Identify and create simple equivalent fractions. (CCSS: 3.NF.3b) I can explain and /or model why the fractions are equivalent. (CCSS: 3.NF.3b)	
CC.3.NF.3c Express whole numbers as fractions, and recognize fractions that are equivalent to whole numbers. Examples: Express 3 in the form 3 = 3/1; recognize that 6/1 = 6; locate 4/4 and 1 at the same point of a number line diagram. (Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.)	I can express whole numbers as fractions. (CCSS: 3.NF.3c) I can recognize fractions that are equivalent to whole numbers. (CCSS: 3.NF.3c)	

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CC.3.NF.3d Compare two fractions with the same numerator or the same denominator, by reasoning about their size, Recognize that valid comparisons rely on the two fractions referring to the same whole. Record the results of comparisons with the symbols >, =, or <, and justify the conclusions, e.g., by using a visual fraction model. (Grade 3 expectations in this domain are limited to fractions with denominators 2, 3, 4, 6, and 8.)	I can compare two fractions with the same numerator or the same denominator by explaining their size. (CCSS: 3.NF.3d) I understand I can only compare fractions that have the same whole. (CCSS: 3.NF.3d) I can explain and compare fractions with the symbols >, =, or <, .6 (CCSS: 3.NF.3d)	
CC.3.MD.1 Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects. 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, e.g., by representing the problem on a number line diagram.	I can tell and write time to the nearest minute. (CCSS: 3.MD.1) I can measure time intervals in minutes. (CCSS: 3.MD.1) I can find the elapsed time using a number line. (CCSS: 3.MD.1) I can solve word problems involving addition and subtraction of time intervals in minutes using a number line diagram. (CCSS: 3.MD.1)	
CC.3.MD.2 Solve problems involving measurement and estimation of intervals of time, liquid volumes, and masses of objects. Measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). (Excludes compound units such as cm^3 and finding the geometric volume of a container.) 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 (such as a beaker with a measurement scale) to represent the problem. (Excludes multiplicative comparison problems (problems involving notions of "times as much.")	I can measure and estimate liquid volumes and masses of objects using standard units of grams (g), kilograms (kg), and liters (l). (CCSS: 3.MD.2) I can use models to add, subtract, multiply, or divide to solve one-step word problems involving masses or volumes. (CCSS: 3.MD.2)	
CC.3.MD.3 Represent and interpret data. 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.	I can draw a scaled picture graph and a scaled bar graph to represent a data set with several categories. (CCSS: 3.MD.3) I can solve one- and two-step "how many more" and "how many less" problems using information presented in scaled bar graphs.1 (CCSS: 3.MD.3)	
CC.3.MD.4 Represent and interpret data. 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.	I can use a ruler to measure lengths in whole, half, and quarter inches. (CCSS: 3.MD.4) I can make a line plot, where the horizontal scale is marked off in appropriate units— whole numbers, halves, or quarters. (CCSS: 3.MD.4)	

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CC.3.MD.5 Geometric measurement: understand concepts of area and relate area to multiplication and to addition. Recognize area as an attribute of plane figures and understand concepts of area measurement. -- a. A square with side length 1 unit, called "a unit square," is said to have "one square unit" of area, and can be used to measure area. -- 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.	I can define a unit square. (CCSS: 3.MD.5) I can define area as the measurement of space with a plane figure and explain why area is measured in square units. (CCSS: 3.MD.5)	
CC.3.MD.6 Geometric measurement: understand concepts of area and relate area to multiplication and to addition. Measure areas by counting unit squares (square cm, square m, square in, square ft, and improvised units).	I can measure the area of a shape or a flat surface. (CC.3.MD.6) I can use unit squares to measure the area of a shape. (CC.3.MD.6)	
CC.3.MD.7 Geometric measurement: understand concepts of area and relate area to multiplication and to addition. Relate area to the operations of multiplication and addition.	I can use multiplication and addition to find the area of a shape. (CSSS: 3.MD.7)	
CC.3.MD.7a 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 the side lengths.	I can find area of rectangles using a variety of methods (CCSS: 3.MD.7a) I can find the area of a rectangle by tiling it, and show that the area is the same as would be found by multiplying the side lengths. (CCSS: 3.MD.7a)	
CC.3.MD.7b Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving real world and mathematical problems, and represent whole-number products as rectangular areas in mathematical reasoning.	I can Multiply side lengths to find areas of rectangles when solving real world problems. (CCSS: 3.MD.7b) I can represent whole-number products as rectangular areas. (CCSS: 3.MD.7b)	
CC.3.MD.7c 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 × b and a × c. Use area models to represent the distributive property in mathematical reasoning.	I can use tiles to show the area of a rectangle. (CCSS: 3.MD.7c) I can use area models to represent the distributive property. (CCSS: 3.MD.7c)	
CC.3.MD.7d Recognize area 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.	I can find area of irregular figures by finding the area of each part and add them together. (CCSS: 3.MD.7d) I can apply this technique to solve real world problems. (CCSS: 3.MD.7d)	

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CC.3.MD.8 Geometric measurement: recognize perimeter as an attribute of plane figures and distinguish between linear and area measures. Solve real world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding an unknown side length, and exhibiting rectangles with the same perimeter and different area or with the same area and different perimeter.	I can Solve real world problems involving perimeters of polygons. (CCSS: 3.MD.8) I can find the perimeter given the side lengths. (CCSS: 3.MD.8) I can find an unknown side length given the perimeter. (CCSS: 3.MD.8) I can find rectangles with the same perimeter and different areas or with the same area and different perimeters. (CCSS: 3.MD.8)	
CC.3.G.1 Reason with shapes and their attributes. Understand that shapes in different categories (e.g., rhombuses, rectangles, and others) may share attributes (e.g., having four sides), and that the shared attributes can define a larger category (e.g., quadrilaterals). Recognize rhombuses, rectangles, and squares as examples of quadrilaterals, and draw examples of quadrilaterals that do not belong to any of these subcategories.	I can use attribute to identify shapes.(CCSS: 3.G.1) I can use attributes to classify shapes into categories. (CCSS: 3.G.1) I can define quadrilaterals.(CCSS: 3.G.1) I can recognize rhombuses, rectangles, and squares as being examples of quadrilaterals.(CCSS: 3.G.1) I can draw quadrilaterals other than rhombuses, rectangles, and squares (CCSS: 3.G.1)	
CC.3.G.2 Reason with shapes and their attributes. Partition shapes into parts with equal areas. Express the area of each part as a unit fraction of the whole. For example, partition a shape into 4 parts with equal area, and describe the area of each part is 1/4 of the area of the shape.	I can divide shapes into parts with equal areas.(CCSS: 3.G.2) I can express the area of each part as a unit fraction of the whole. (CCSS: 3.G.2)	
Standards for Mathematical Practice	**1. Make sense of problems and persevere in solving them.** **2. Reason abstractly and quantitatively.** **3. Construct viable arguments and critique the 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.**	