SOUTH DAKOTA K–5 MATHEMATICS STANDARDS PROGRESSION

GRADE COLOR KEY	K	1	2	3	4	5

NUMBERS

Names, Sequence, & Counting	K.N.1 Count to 100 by ones and tens.	K.N.2 Start counting forward from any number up to 100 and count backward from any number within 20.	K.N.3 Read, write, and identify numbers from 0 to 20.	K.N.4 Count objects using one-to-one correspondence.	K.N.5 Understand that the last number name said tells the number of objects counted regardless of arrangement or the order in which they were counted (cardinality).	K.N.6 Given a number within 20, identify one more.	K.N.7 Count up to 20 objects in a line, rectangular array, and circle.	K.N.8 Count up to 10 objects in a scattered arrangement.	K.N.9 For any number from 1 to 9, find the number that makes 10 when added to the given number.	K.N.10 Given a number(s) from 0-20, count out that many objects.
Comparison	K.N.11 Identify whether the number of objects in one group is greater than, less than, or equal to the objects of another group (up to ten).	K.N.12 Identify whether a written number is greater than, less than, or equal to another written number (0-10).	K.N.13 Describe the relative positions of objects using terms such as above, below, beside, in front of, behind, and next to.							
Names, Sequence, and Comparison	1.N.1 Count to 120 by 10s.	1.N.2 Count forward and backward from any number within 120.	1.N.3 Read, write, and identify numbers from 0 to 120.	1.N.4 Compose and decompose two-digit numbers into tens and ones.	1.N.5 Represent two-digit numbers (drawings, ten-frames, connecting cubes, base-ten blocks, place value chart, etc.).	1.N.6 Count objects up to 120 using groups of tens and ones.	1.N.7 Compare two two-digit numbers using the symbols <, >, =, based on the value of the 10s and 1s in the given numbers.			

NUMBERS

Counting	2.N.1 Count forward and backward from any number by 10s and 100s up to 1000.		2.N.2 Count forward and backward by 5s to 120.	2.N.3 Count forward and backward by 2s to 50	2.N.4 Determine whether a number is odd or even within 50.				
Place Value	2.N.5 Given a two-digit or three-digit number, find the distance to the next ten or hundred, and prior ten or hundred.		2.N.6 Compose and decompose three-digit numbers into hundreds, tens and ones.	2.N.7 Read, write, and identify numbers up to 1000 in standard form, word form, and expanded form.	2.N.8 Compare two three-digit numbers using the symbols <, >, =, based on the value of the hundreds, tens, and ones in the given numbers.	3.N.1 Use place value understanding to round whole numbers to the nearest 10 or 100.	3.N.2 Compose and decompose four-digit numbers into thousands, hundreds, tens, and ones.	3.N.3 Read and write whole numbers up to 10,000 using standard form, word form, and expanded form.	
Place Value (continued)	4.N.1 Recognize that a digit in a given place represents ten times what it represents in the place to its right.	4.N.2 Use place value understanding to round multi-digit whole numbers to any place.	4.N.3 Compose and decompose five-digit numbers into ten thousands, thousands, hundreds, tens, and ones.	4.N.4 Read and write whole numbers up to 1,000,000 using standard form, word form, and expanded form.	4.N.5 Compare two multi-digit numbers based on values of the digits in each place value using the symbols <, >, =.	5.N.1 Recognize that a digit in a given place represents ten times what it represents in the place to its right and 1/10 what it represents in the place to its left.	5.N.2 Use place value reasoning and patterns to explain how multiplying or dividing by powers of 10 affects the value and placement of digits in a number.	5.N.3 Read and write decimal numbers to the thousandths place using standard form, word form and expanded form.	5.N.4 Order and compare decimal numbers to the thousandths place using the symbols <, >, =.	5.N.5 Apply place value understanding to round decimals to any decimal place up to the hundredths place.

OPERATIONS AND ALGEBRAIC THINKING

Number Operations	**K.OA.1 Represent addition and subtraction within ten using objects, fingers, drawings, mental images, or verbal explanations.**	**K.OA.2 Represent the operations of addition and subtraction using an equation.**	**K.OA.3 Demonstrate understanding that addition is putting together, getting more, or counting on.**	**K.OA.4 Demonstrate understanding that subtraction is taking away, taking apart, or counting back.**	**K.OA.5 Solve word problems, identify the correct operation needed (add or subtract within ten) and solve using objects or drawings.**	**K.OA.6 Find different ways that a whole number (1 to 10) can be decomposed into two parts by using a visual representation or equation.**	**K.OA.7 Find all the ways the number 5 can be broken into two parts using visual representations or equations.**	**K.OA.8 Decompose and compose numbers 11-19 into tens and ones, using objects, drawings, or equations.**		
Number Operations (continued)	**1.OA.1 Understand counting on as addition and counting back as subtraction.**	**1.OA.2 Demonstrate understanding of addition problems using properties (commutative, associative, and additive identity) within 20.**	**1.OA.3 Solve addition and subtraction problems within 20, using objects, drawings, number line, or equations with a symbol for the unknown number.**	**1.OA.4 Solve addition and subtraction word problems within 20, including problems with 3 whole addends.**	**1.OA.5 Given a number within 100, add and subtract multiples of 10 within 100 using multiple strategies that reflect an understanding of place value.**	**1.OA.6 Add a two-digit and one-digit number (with or without regrouping) using multiple strategies that reflect an understanding of place value.**	**1.OA.7 Subtract a two digit and one digit number (with or without borrowing) using multiple strategies that reflect an understanding of place value.**	**1.OA.8 Subtract multiples of 10 in the range 10-90 from multiples of 10 in the range 10-90 (positive or zero differences).**	**1.OA.9 Demonstrate understanding of inverse operations between addition and subtraction by creating equivalent equations within 20.**	**1.OA.10 Apply the understanding of the equal sign to determine if equations involving addition or subtraction are true or false.**	**1.OA.11 Given an addition or subtraction equation, find an unknown value in any position.**
Number Operations (continued)	**2.OA.1 Demonstrate understanding of addition problems using properties (commutative, associative, and additive identity) within 100.**	**2.OA.2 Solve addition and subtraction problems within 100, using objects, drawings, open number lines, or equations with a symbol for the unknown number in any position.**	**2.OA.3 Solve addition and subtraction word problems within 100.**	**2.OA.4 Add up to four two-digit numbers using multiple strategies.**	**2.OA.5 Use place value understanding and visual models (e.g., base-ten blocks, number lines) to explain and justify addition and subtraction strategies up to 1000.**	**2.OA.6 Given a rectangular array (up to 5 x 5), use repeated addition to find the total number of objects; write an addition equation to express the total.**				

OPERATIONS AND ALGEBRAIC THINKING *continued*

Number Operations (continued)	**3.OA.1 Use visual models (e.g., arrays, equal groups, number lines) to explain and justify multiplication as combining equal groups.**	**3.OA.2 Use visual models (e.g., arrays, equal groups, number lines) to explain and justify division as separating into equal groups.**	**3.OA.3 Solve word problems using multiplication and division within 100 using drawings and equations with a symbol for the unknown quantities.**	**3.OA.4 Determine the unknown whole number in a multiplication or division equation relating to three whole numbers.**	**3.OA.5 Apply properties of operations as strategies to multiply and divide.**	**3.OA.6 Understand that multiplication and division are inverse operations.**	**3.OA.7 Demonstrate understanding of multiplication and division within 100 by using arrays, equal groups, and number lines to explain the relationship between the two operations.**	**3.OA.8 Demonstrate understanding of addition and multiplication problems using properties (commutative, associative, and identity).**	**3.OA.9 Solve two-step word problems using addition, subtraction, multiplication, and division using an equation with a symbol for the unknown quantity; Assess the reasonableness of answers using mental computation and estimation strategies including rounding.**	**3.OA.10 Identify and explain arithmetic patterns.**	
Number Operations (continued)	**4.OA.1 Represent and explain multiplicative comparisons using equations, drawings, and verbal reasoning.**	**4.OA.2 Solve real-world problems involving multiplicative comparison, using drawings and/or equations with a symbol for the unknown number, and distinguish between multiplicative comparison and additive comparison.**	**4.OA.3 Multiply four-digit whole numbers by one-digit whole numbers, and multiply two two-digit whole numbers.**	**4.OA.4 Divide four digit whole numbers by one-digit divisors; quotients should be with and without whole number remainders.**	**4.OA.5 Interpret a remainder of a one-step division problem.**	**4.OA.6 Solve multistep word problems using addition, subtraction, multiplication, and division, with whole numbers and having whole number answers, including problems in which remainders must be interpreted; assess the reasonableness of answers using mental computation and estimation strategies including rounding.**	**4.OA.7 Find factor pairs for whole numbers up to 100.**	**4.OA.8 Recognize that a whole number (within 100) is a multiple of each of its factors.**	**4.OA.9 Find multiples of single-digit whole numbers.**	**4.OA.10 Determine whether a whole number from 1 to 100 is prime or composite.**	**4.OA.11 Generate a number or shape pattern that follows a given rule, identifying apparent features of the pattern that are not explicit in the rule itself.**	**4.OA.12 Demonstrate understanding of addition and multiplication problems using properties (commutative, associative, distributive, and identity).**	**4.OA.13 Evaluate a numerical expression including addition, subtraction, multiplication, and division using the order of operations of whole numbers without parenthesis and exponents.**

OPERATIONS AND ALGEBRAIC THINKING *continued*							
Number Operations (continued)	**5.OA.1 Write and evaluate numerical expressions with parentheses using the order of operations.**	**5.OA.2 Generate two number patterns by following two different rules and make a graph using ordered pairs that match the numbers from each pattern.**	**5.OA.3 Calculate whole number quotients of whole numbers with up to four-digit dividends and two-digit divisors. Explain the calculation by using equations, rectangular arrays, illustrations, area models, or other representations based on place value.**	**5.OA.4 Add decimals to the hundredths place using various strategies.**	**5.OA.5 Subtract decimals to the hundredths place using various strategies.**	**5.OA.6 Multiply decimals to the hundredths place using various strategies.**	**5.OA.7 Divide decimals to the hundredths place using various strategies.**

MEASUREMENT

Measurement Concepts	K.M.1 Describe measurable traits of an object such as length, weight, or size.	K.M.2 Compare objects using the same measurable trait.	1.M.1 Order three objects by length; compare the lengths of two objects indirectly by using a third object.	1.M.2 Measure the length of an object by lining up same-size units with no gaps or overlaps and counting the number of units.	2.M.1 Explore length of an object by lining up inch-sized manipulatives with no gaps or overlaps.	2.M.2 Estimate the length of an object using inches, feet, and yards.	2.M.3 Measure the length of objects using inches, feet, and yards.	2.M.4 Explore length of an object by lining up centimeter and decimeter-sized manipulatives with no gaps or overlaps.	2.M.5 Estimate the length of an object using centimeters, decimeters, and meters.	2.M.6 Measure the length of objects using centimeters, decimeters, and meters.

Measurement Concepts (continued)	3.M.1 Understand area to be the amount of space inside a two-dimensional shape.	3.M.2 Understand a square unit to be a square that is 1 unit on each side and is used to measure area.	3.M.3 Understand a shape has an area of *n* square units if it can be covered with *n* unit squares without gaps or overlaps.	3.M.4 Measure areas by square units.	3.M.5 Use tiling and visual models to explain how multiplying side lengths of a rectangle represents its area.	3.M.6 Solve word problems involving areas of rectangles.	3.M.7 Use tiling with area models to represent the distributive property of multiplication.

Measurement Concepts (continued)	3.M.8 Understand that area can be found by adding the areas of non-overlapping rectangles and use this method to solve real-world problems.	3.M.9 Understand perimeter as the distance around a two-dimensional shape.	3.M.10 Solve real-world and mathematical problems involving perimeters of polygons, including finding the perimeter given the side lengths, finding unknown side lengths, and creating rectangles with the same perimeter and different areas or with the same area and different perimeters.	3.M.11 Measure and estimate liquid volumes using the U.S. Customary and metric system.	3.M.12 Measure and estimate masses of objects using the U.S. Customary and metric system.	3.M.13 Solve one-step addition, subtraction, multiplication, and division word problems involving masses or volumes in the same units.	3.M.14 Measure lengths using rulers to halves and fourths of an inch.

Measurement Concepts (continued)	4.M.1 Measure length, weight, mass, and capacity using U.S. Customary and metric systems of measurement (including km, m, cm; kg, g; lb, oz.; l, ml; hr, min, sec.).	4.M.2 Express larger units in terms of smaller units through conversions within a single system of measurement.	4.M.3 Solve word problems using addition, subtraction, multiplication, and division involving distance, intervals of time, capacity, masses, and money, using fractional and decimal values.	4.M.4 Use visual models and reasoning to explain how area and perimeter formulas for rectangles relate to their side lengths and solve real-world problems.	5.M.1 Convert length, weight, mass, capacity, and time measurements from larger to smaller units and vice versa within the U.S. customary and metric measuring systems.

MEASUREMENT *continued*

Time and Money	K.M.3 Identify a clock as a tool that measures time of day. Answer questions about time of day and duration of time using both analog and digital clocks (morning, afternoon, evening, minute, hour).	K.M.4 Identify a calendar as a tool that measures time in days, months, weeks, years. Answer questions about time sequencing (yesterday, today, tomorrow).	K.M.5 Identify pennies and dimes by name and value.	K.M.6 Count groups of pennies and groups of dimes by their values (coins not combined).	1.M.3 Tell and write time to half-hour and hour intervals on analog and digital clocks.	1.M.4 Identify coins by name and value, including penny, nickel, dime, and quarter.	1.M.5 Find the value of combinations of U.S. coins up to one dollar using pennies, nickels and dimes and represent with ¢.	

Time and Money (continued)	2.M.7 Tell and write time to the nearest five minutes on analog and digital clocks and use a.m. and p.m. appropriately.	2.M.8 Solve problems involving time in 5-minute intervals.	2.M.9 Find the value of combinations of U.S. coins up to $1 and bills up to $100.	2.M.10 Identify and count coins and bills and apply that understanding to solve word problems.	2.M.11 Solve word problems involving dollar bills, quarters, dimes, nickels, and pennies, using dollar sign and cent sign symbols appropriately.	3.M.15 Tell and write time to the nearest minute using an analog and digital clock.	3.M.16 When solving word problems add, subtract, multiply and divide time to the minute.	3.M.17 Determine the value of a collection of U.S. coins and bills up to $100.00 using decimal notation.

Data	K.M.7 Collect and sort objects into categories.	1.M.6 Organize, represent, and interpret data with up to three categories.	1.M.7 Interpret and compare data represented in a picture/bar graph or tally chart.	2.M.12 Create tables, line plots, and bar graphs to represent a given set of data with up to four categories.	2.M.13 Interpret and analyze data presented with tables, line plots, picture graphs, and bar graphs.	3.M.18 Create a scaled table, bar graph, circle graph, and line graph to represent a given set of data.	3.M.19 Interpret and analyze one and two - step data problems with scaled tables, bar graphs, circle graphs, and line graphs.	3.M.20 Make a line plot using horizontal scale marked off in whole numbers, halves, or quarters.	4.M.5 Make a line plot to display a data set of measurements in fractions of a unit (1/2, 1/4, 1/8) and solve problems using the line plot.	5.M.2 Create and use a line plot to display a data set of measurements to solve real-world problems involving information presented.

GRADE COLOR KEY	K	1	2	3	4	5

GEOMETRY

Shapes	K.G.1 Identify and sort shapes as two-dimensional or three-dimensional.	K.G.2 Name and describe two-dimensional shapes (circles, triangles, squares, and rectangles) using attributes (sides, vertices, square corners).	K.G.3 Identify and draw two-dimensional shapes (circles, triangles, squares, rectangles, and trapezoid) in a variety of orientations.	K.G.4 Identify three-dimensional shapes (cube, cone, cylinder, or sphere).	K.G.5 Build and draw shapes found in the real-world.	K.G.6 Build simple shapes to form larger shapes.	1.G.1 Distinguish between defining attributes (such as triangles are three-sided) and non-defining attributes (such as color, orientation, or size).	1.G.2 Use defining attributes to build and draw shapes.	1.G.3 Compose and identify two-dimensional shapes including triangles, squares, rectangles, trapezoids, circles, half-circles, and quarter-circles.	1.G.4 Identify right rectangular prisms (three-dimensional solids with rectangular faces).	1.G.5 Partition circles and rectangles into two and four equal parts and describe the parts using the words halves, fourths, and quarters and understand that more equal shares create small shares.
Shapes (continued)	2.G.1 Recognize, identify, and describe attributes (such as number of angles and number of sides) of polygons including triangles, quadrilaterals, pentagons, hexagons, and octagons.	2.G.2 Describe the differences between quadrilaterals (including squares, rectangles, and trapezoids) using attributes (such as congruent sides, parallel sides, and right angles).	2.G.3 Identify regular and irregular two-dimensional shapes.	2.G.4 Partition a rectangle into rows and columns of same-size squares and count to find the total number of them.	3.G.1 Understand that shapes in different categories may share attributes and can define a larger category.	3.G.2 Understand that a quadrilateral is any four-sided shape, and identify and describe the relationships between various quadrilaterals, including trapezoids, parallelograms, rectangles, and squares.	3.G.3 Break apart shapes into parts with equal areas and express the area of each part as a unit fraction of the whole.	3.G.4 Determine whether a shape is a polygon or non-polygon.	3.G.5 Classify polygons based on the number of sides.		
Shapes (continued)	4.G.5 Identify, describe, and draw points, lines, segments, rays, and angles.	4.G.6 Identify, describe, and draw intersecting, parallel, and perpendicular lines.	4.G.7 Understand a trapezoid to be a two-dimensional shape with four sides, where exactly one pair of sides is parallel.	4.G.8 Identify and describe various quadrilaterals by their properties of parallel and perpendicular lines including square, rectangle, trapezoid, and rhombus.	4.G.9 Identify, describe, and draw equilateral, scalene, right, acute, and obtuse angles and triangles.	4.G.10 Identify and draw lines of symmetry for two-dimensional figures.	5.G.8 Understand attributes belonging to a category of two-dimensional figures also belong to all subcategories of that category.	5.G.9 Classify two-dimensional figures in a hierarchy based on properties.	5.G.10 Identify and draw triangles based on their attributes (side lengths and angle measures). Understand that triangles can be classified into categories (such as equilateral, isosceles, scalene, acute, right, and obtuse), and that these categories can overlap.		

GEOMETRY *continued*

Geometric Measurement	**4.G.1 Recognize angles as geometric shapes that are formed where two rays share a common endpoint.**	**4.G.2 Measure angles in degrees using a protractor and understand a degree as 1/360 of a circle; draw angles of specific measure.**	**4.G.3 Classify angles as right, acute, obtuse, or straight. Draw right, acute, obtuse, and straight angles.**	**4.G.4 Recognize and apply the concept of additive angles: when angles are broken apart the sum of the parts is equal to the angle measure of the whole.**	**5.G.1 Use unit cubes and visual models to explore and explain volume as the amount of space inside a three-dimensional object.**	**5.G.2 Understand a shape has a volume of n cubic units if it can be filled with n unit cubes without gaps or overlaps.**	**5.G.3 Measure volume by cubic units using cubic cm, cubic in, cubic ft or cubic units.**	**5.G.4 Find the volume of right rectangular prism by packing with unit cubes and show that the volume is the same as multiplying the edge lengths (or multiplying the height by the area of the base).**	**5.G.5 Use threefold whole-number products of volume to represent the associative property of multiplication.**	**5.G.6 Solve real-world problems by applying formulas (V=l • w • h, V=B • h) for rectangular prisms to find the volume of right rectangular prisms with whole number side lengths.**	**5.G.7 Find volumes of solid figures composed of two non-overlapping right rectangular prisms (with whole number side lengths) by adding the volumes.**

Coordinate Plane System	**5.G.11 Understand a coordinate plane to be a diagram for graphing two related pieces of information with two perpendicular number lines.**	**5.G.12 Identify the origin, *x*-axis, and *y*-axis on the coordinate plane.**	**5.G.13 Identify *x*- and *y*-coordinates of points on a coordinate plane.**	**5.G.14 Understand the x-coordinate of an ordered pair as the point's location on the coordinate plane relative to the *y*-axis, and the *y*-coordinate of an ordered pair as the point's location on the coordinate plane relative to the x-axis.**	**5.G.15 Represent and interpret real-world and mathematical problems by graphing points in the first quadrant on a coordinate plane.**

MATHEMATICAL FLUENCY													
Mathematical Fluency	K.MF.1 Fluently add within 5.	K.MF.2 Fluently subtract within 5.	K.MF.3 Recognize objects within 5 (tallies, five frame, fingers, dominoes, dice, and scattered).	1.MF.1 Fluently add within 20.	1.MF.2 Fluently subtract within 20.	1.MF.3 Recall from memory addition facts within 10.	1.MF.4 Recall from memory subtraction facts within 10.	1.MF.5 Mentally find 10 more or 10 less than a given two-digit number.	2.MF.1 Fluently add within 100 using various strategies.	2.MF.2 Fluently subtract within 100 using various strategies.	2.MF.3 Recall from memory addition facts within 20	2.MF.4 Recall from memory subtraction facts within 20.	2.MF.5 Mentally calculate 10 more, 10 less, 100 more and 100 less than a given three-digit number 100-900.
Mathematical Fluency (continued)	3.MF.1 Fluently use multiplication strategies to mentally solve multiplication facts through 12.	3.MF.2 Recall from memory multiplication facts (0-12) to include 0, 1, 2, 5, and 10.	3.MF.3 Fluently add within 1,000 using various strategies.	3.MF.4 Fluently subtract within 1,000 using various strategies.	3.MF.5 Fluently multiply one-digit whole numbers by multiples of 10 in the range 10-90.	4.MF.1 Recall from memory multiplication facts (0-12).	4.MF.2 Recall from memory division facts (0-12).	4.MF.3 Fluently add and subtract multi-digit whole numbers using an algorithm including, but not limited to, the standard algorithm.	5.MF.1 Fluently multiply multi-digit whole numbers using an algorithm, including but not limited to the standard algorithm.	5.MF.2 Fluently divide multi-digit whole numbers using an algorithm, including but not limited to the standard algorithm.			

FRACTIONS

Fraction Foundation	**2.F.1 Partition circles and rectangles into two, three or four equal parts then count and describe the parts using the words halves, thirds, and fourths. ("one-fourth, two-fourths, three- fourths").**	**3.F.1 Understand the denominator of a fraction represents the number of equal parts the whole is broken into.**	**3.F.2 Understand the numerator of a fraction represents the number of selected equal parts.**	**3.F.3 Understand fractions as parts of a whole, as numbers on a number line, and as multiples of unit fractions.**	**3.F.4 Use number lines and area models to explain why two fractions are equivalent and how they represent the same quantity (include fractions with denominators 2, 3, 4, 6 and 8).**	**3.F.5 Recognize and generate equivalent fractions and explain why they are equivalent.**	**3.F.6 Express whole number fractions and recognize fractions that are equivalent to whole numbers.**	**3.F.7 Compare two fractions with the same numerator or the same denominator using the symbols <, >, =.**
Operations and Properties	**4.F.1 Use visual models and reasoning to explain why a fraction a/b is equivalent to another fraction when both the numerator and denominator are multiplied by the same number.**	**4.F.2 Compare fractions with different numerators and denominators, by creating common denominators or numerators, using the symbols <, >, =.**	**4.F.3 Add and subtract fractions with like denominators.**	**4.F.4 Solve word problems involving addition and subtraction of fractions referring to the same whole and having like denominators.**	**4.F.5 Break apart fractions into sums of fractions with the same denominator and smaller numerators.**	**4.F.6 Add and subtract mixed numbers with like denominators using various strategies.**	**4.F.7 Multiply a fraction by a whole number and a whole number by a fraction.**	
Operations and Properties (continued)	**4.F.8 Understand a fraction *a/b* is a multiple of 1/*b*.**	**4.F.9 Understand a multiple of *a/b* is also a multiple of 1/*b*.**	**4.F.10 Solve word problems involving multiplication of fractions by whole numbers.**	**4.F.11 Add two fractions with denominator of 10 and 100 by expressing the denominator of 10 as an equivalent fraction with a denominator of 100.**	**4.F.12 Understand a decimal number to be a number with a whole part and a fractional part separated by a decimal point.**	**4.F.13 Apply decimal notation for fractions with denominators 10 or 100; locate these decimals on a number line.**	**4.F.14 Read, write, and describe the value of decimal numbers to the hundredths place.**	**4.F.15 Compare decimals to the hundredths place on a number line and by using the symbols <, > , =.**
Fractional Operations and Properties	**5.F.1 Add and subtract fractions, fractions with unlike denominators, mixed numbers, and improper fractions by replacing given fractions with equivalent fractions.**	**5.F.2 Solve word problems using addition and subtraction of fractions, fractions with unlike denominators, mixed numbers, and improper fractions by using visual fraction models or equations.**	**5.F.3 Use benchmark fractions and number sense of fractions to estimate mentally and assess the reasonableness of answers.**	**5.F.4 Multiply a fraction or whole number by a fraction. Interpret the product using visual fraction models and story contexts (e.g., area models for rectangles with fractional side lengths).**	**5.F.5 Solve real-world problems involving multiplication of fractions and mixed numbers, including interpreting multiplication as scaling (resizing). Explain why multiplying by a fraction greater than 1 increases the product and multiplying by a fraction less than 1 decreases the product.**	**5.F.6 Interpret a fraction as division of the numerator by the denominator (a/b = a ÷ b). Solve word problems involving division of whole numbers leading to answers in the form of fractions or mixed numbers, using visual fraction models or equations to represent the problem**	**5.F.7 Interpret division of a unit fraction by a non-zero whole number and compute such quotients.**	**5.F.8 Interpret division of a whole number by a unit fraction and compute such quotients.**	**5.F.9 Divide unit fractions by whole numbers and whole numbers by unit fractions. Use visual fraction models and equations to represent and explain the relationship between multiplication and division.**	**5.F.10 Solve real-world problems involving the division of unit fractions by whole numbers and whole numbers by unit fractions, using visual fraction models and equations to represent the problem.**