bridges in mathematics

GRADE 3

Bridges & Number Corner Third Edition

CORRELATIONS

North Carolina Standard Course of Study — Mathematics

number corner

3 SMP — Standards for Mathematics Practice

Standard	Descriptor	Citations	
Standards for Mathematics Practice			
SMP.1	Make sense of problems and persevere in solving them.	**Bridges in Mathematics** Unit 2: M1 S1; M1 S2 Unit 3: M1 S2; M3 S3 Unit 4: M2 S3 Unit 5: M1 S4; M2 S1 Unit 6: M3 S1 Unit 7: M4 S3 Unit 8: M1 S3; M4 S1	**Number Corner** September: Solving Problems October: Solving Problems November: Solving Problems February: Calendar Collector March: Solving Problems April: Calendar Collector, Solving Problems May: Solving Problems
SMP.2	Reason abstractly and quantitatively.	**Bridges in Mathematics** Unit 1: M2 S1; M4 S3; M4 S5 Unit 2: M2 S5 Unit 3: M1 S1 Unit 4: M1 S2 Unit 5: M4 S4 Unit 7: M4 S1 Unit 8: M3 S6; M4 S1; M3 S6	**Number Corner** September: Computational Fluency November: Solving Problems January: Solving Problems April: Calendar Grid May: Solving Problems
SMP.3	Construct viable arguments and critique the reasoning of others.	**Bridges in Mathematics** Unit 1: M2 S4; M3 S3; M4 S2 Unit 2: M1 S1 Unit 3: M1 S6; M4 S2 Unit 4: M3 S3 Unit 5: M2 S4 Unit 6: M4 S3 Unit 8: M4 S1	**Number Corner** October: Solving Problems November: Computational Fluency December: Calendar Grid January: Solving Problems February: Solving Problems March: Solving Problems May: Calendar Collector, Number Line
SMP.4	Model with mathematics.	**Bridges in Mathematics** Unit 1: M1 S1; M1 S2; M4 S5 Unit 2: M2 S2 Unit 4: M3 S4; M4 S3 Unit 5: M1 S3 Unit 6: M3 S2 Unit 7: M4 S2 Unit 8: M3 S3	**Number Corner** May: Calendar Grid

Standard	Descriptor	Citations	
Standards for Mathematics Practice			
SMP.5	Use appropriate tools strategically.	**Bridges in Mathematics** Unit 1: M2 S5; M3 S1 Unit 3: M1 S2; M2 S4 Unit 4: M2 S4 Unit 6: M1 S5 Unit 7: M2 S2 Unit 8: M1 S3; M4 S2	**Number Corner** December: Calendar Collector January: Calendar Collector February: Calendar Collector April: Calendar Collector, Number Line
SMP.6	Attend to precision.	**Bridges in Mathematics** Unit 1: M3 S1 Unit 2: M4 S2 Unit 3: M3 S4 Unit 4: M1 S6; M4 S1 Unit 5: M3 S3; M4 S2 Unit 6: M1 S4 Unit 7: M2 S4; M4 S4 Unit 8: M1 S1; M1 S2; M4 S4	**Number Corner** November: Calendar Collector, Computational Fluency December: Computational Fluency January: Number Line February: Number Line March: Number Line May: Number Line
SMP.7	Look for and make use of structure.	**Bridges in Mathematics** Unit 1: M1 S1; M1 S2; M2 S1; M2 S3; M3 S5 Unit 2: M2 S2; M3 S4 Unit 3: M2 S2 Unit 4: M1 S2 Unit 8: M1 S3; M3 S6; M4 S4	**Number Corner** September: Calendar Grid, Number Line October: Calendar Grid, Number Line November: Calendar Grid, Number Line December: Calendar Grid, Number Line January: Calendar Grid, Number Line February: Calendar Grid, Number Line March: Calendar Grid, Number Line April: Solving Problems May: Computational Fluency
SMP.8	Look for and express regularity in repeated reasoning.	**Bridges in Mathematics** Unit 1: M1 S4 Unit 2: M2 S4; M3 S2 Unit 3: M4 S1 Unit 4: M3 S2 Unit 5: M1 S2 Unit 6: M3 S3 Unit 7: M3 S4 Unit 8: M1 S1; M2 S5	**Number Corner** November: Number Line December: Solving Problems January: Computational Fluency February: Computational Fluency March: Calendar Grid, Calendar Collector, Computational Fluency April: Computational Fluency May: Calendar Grid, Calendar Collector

3 OA — Operations and Algebraic Thinking

Standard	Descriptor	Citations	
Represent and solve problems involving multiplication and division.			
	For products of whole numbers with two factors up to and including 10:		
NC.3.OA.1	• Interpret the factors as representing the number of equal groups and the number of objects in each group. • Illustrate and explain strategies including arrays, repeated addition, decomposing a factor, and applying the commutative and associative properties.	**Bridges in Mathematics** Unit 2: M1 S2; M1 S3; M1 S5; M1 S6; M2 S1; M2 S2; M2 S3; M2 S4; M2 S5; M3 S1; M3 S2; M3 S3; M3 S4; M4 S3 Unit 5: M1 S1; M1 S2; M1 S6 Unit 6: M3 S5 Unit 7: M1 S2	**Number Corner** September: Calendar Grid October: Computational Fluency November: Computational Fluency, Solving Problems December: Solving Problems February: Computational Fluency March: Computational Fluency April: Computational Fluency, Solving Problems May: Calendar Collector, Computational Fluency
	For whole-number quotients of whole numbers with a one-digit divisor and a one-digit quotient:		
NC.3.OA.2	• Interpret the divisor and quotient in a division equation as representing the number of equal groups and the number of objects in each group. • Illustrate and explain strategies including arrays, repeated addition or subtraction, and decomposing a factor.	**Bridges in Mathematics** Unit 5: M1 S2; M1 S3; M1 S4; M1 S6; M2 S1; M2 S2; M3 S1; M3 S2 Unit 6: M3 S5	**Number Corner** May: Solving Problems

Standard	Descriptor	Citations	
Represent and solve problems involving multiplication and division.			
	Represent, interpret, and solve one-step problems involving multiplication and division.		
NC.3.OA.3	• Solve multiplication word problems with factors up to and including 10. Represent the problem using arrays, pictures, and/or equations with a symbol for the unknown number to represent the problem. • Solve division word problems with a divisor and quotient up to and including 10. Represent the problem using arrays, pictures, repeated subtraction and/or equations with a symbol for the unknown number to represent the problem.	**Bridges in Mathematics** Unit 2: M1 S1; M1 S2; M1 S3; M1 S4; M1 S5; M1 S6; M3 S1; M3 S2 Unit 5: M1 S3; M1 S4; M2 S1; M2 S2 Unit 7: M2 S1; M2 S2	**Number Corner** September: Calendar Grid November: Solving Problems January: Solving Problems
Understand properties of multiplication and the relationship between multiplication and division.			
NC.3.OA.6	Solve an unknown-factor problem, by using division strategies and/or changing it to a multiplication problem.	**Bridges in Mathematics** Unit 5: M1 S4; M1 S6; M2 S1; M2 S2; M2 S3; M3 S4	**Number Corner** February: Computational Fluency April: Computational Fluency, Solving Problems May: Computational Fluency

Standard	Descriptor	Citations	
Multiply and divide within 100.			
	Demonstrate fluency with multiplication and division with factors, quotients and divisors up to and including 10.		
NC.3.OA.7	• Know from memory all products with factors up to and including 10. • Illustrate and explain using the relationship between multiplication and division. • Determine the unknown whole number in a multiplication or division equation relating three whole numbers.	**Bridges in Mathematics** Unit 2: M2 S3; M2 S4; M3 S3; M3 S4 Unit 5: M1 S6; M2 S1; M2 S2; M2 S3; M2 S4; M3 S2; M3 S3; M3 S4 Unit 7: M1 S3; M1 S4; M2 S1; M2 S2; M2 S3; M2 S4; M2 S5	**Number Corner** November: Solving Problems February: Computational Fluency March: Computational Fluency April: Computational Fluency, Solving Problems May: Calendar Collector, Computational Fluency
Solve two-step problems.			
NC.3.OA.8	Solve two-step word problems using addition, subtraction, and multiplication, representing problems using equations with a symbol for the unknown number.	**Bridges in Mathematics** Unit 1: M4 S1; M4 S2 Unit 2: M4 S2 Unit 3: M3 S4 Unit 4: M2 S2; M2 S3 Unit 7: M1 S1; M1 S2 Unit 8: M4 S2	**Number Corner** October: Number Line November: Number Line January: Solving Problems
Explore patterns of numbers.			
NC.3.OA.9	Interpret patterns of multiplication on a hundreds board and/or multiplication table.	**Bridges in Mathematics** Unit 1: M1 S3; M1 S4; M1 S5; M2 S2; M3 S3; M3 S4 Unit 2: M2 S2; M3 S3; M3 S4 Unit 7: M1 S5 Unit 8: M2 S1	**Number Corner** September: Number Line December: Computational Fluency January: Computational Fluency February: Computational Fluency March: Computational Fluency April: Computational Fluency May: Calendar Collector

3 NBT — Number and Operations in Base Ten

Standard	Descriptor	Citations	
Use place value to add and subtract.			
	Add and subtract whole numbers up to and including 1,000.		
NC.3.NBT.2	• Use estimation strategies to assess reasonableness of answers. • Model and explain how the relationship between addition and subtraction can be applied to solve addition and subtraction problems. • Use expanded form to decompose numbers and then find sums and differences.	**Bridges in Mathematics** Unit 1: M2 S3; M2 S5; M4 S4 Unit 3: M1 S2; M1 S3; M1 S4; M1 S5; M1 S6; M2 S3; M2 S4; M3 S3; M3 S4; M4 S1; M4 S2; M4 S3; M4 S4 Unit 4: M2 S1; M2 S2	**Number Corner** November: Number Line, Solving Problems December: Number Line January: Solving Problems
Generalize place value understanding for multidigit numbers.			
NC.3.NBT.3	Use concrete and pictorial models, based on place value and the properties of operations, to find the product of a one-digit whole number by a multiple of 10 in the range 10–90.	**Bridges in Mathematics** Unit 7: M1 S1; M1 S5; M2 S1; M2 S2; M2 S3; M2 S4; M2 S5	

3 NF — Number and Operations: Fractions

Standard	Descriptor	Citations	
Understand fractions as numbers.			
	Interpret unit fractions with denominators of 2, 3, 4, 6, and 8 as quantities formed when a whole is partitioned into equal parts;		
NC.3.NF.1	• Explain that a unit fraction is one of those parts. • Represent and identify unit fractions using area and length models.	**Bridges in Mathematics** Unit 4: M3 S1; M3 S2; M3 S3; M3 S4; M4 S2 Unit 6: M4 S2; M4 S3 Unit 7: M3 S1; M3 S2; M3 S3; M3 S4; M3 S5; M3 S6; M4 S1 Unit 8: M2 S1	**Number Corner** October: Calendar Collector November: Calendar Collector December: Calendar Grid February: Calendar Collector April: Calendar Collector
	Interpret fractions with denominators of 2, 3, 4, 6, and 8 using area and length models.		
NC.3.NF.2	• Using an area model, explain that the numerator of a fraction represents the number of equal parts of the unit fraction. • Using a number line, explain that the numerator of a fraction represents the number of lengths of the unit fraction from 0.	**Bridges in Mathematics** Unit 4: M3 S1; M3 S2; M3 S3 Unit 6: M4 S1; M4 S2; M4 S3 Unit 7: M3 S1; M4 S2; M4 S3 Unit 8: M2 S1	**Number Corner** November: Calendar Collector December: Calendar Grid January: Number Line February: Number Line March: Number Line April: Number Line May: Calendar Grid

Standard	Descriptor	Citations	
Understand fractions as numbers.			
	Represent equivalent fractions with area and length models by:		
NC.3.NF.3	• Composing and decomposing fractions into equivalent fractions using related fractions: halves, fourths and eighths; thirds and sixths. • Explaining that a fraction with the same numerator and denominator equals one whole. • Expressing whole numbers as fractions and recognize fractions that are equivalent to whole numbers.	**Bridges in Mathematics** Unit 4: M3 S2; M3 S3 Unit 6: M4 S2; M4 S3 Unit 7: M3 S1; M3 S2; M3 S3; M3 S4; M3 S5; M3 S6; M4 S1; M4 S2; M4 S3	**Number Corner** October: Calendar Collector November: Calendar Collector December: Calendar Grid January: Calendar Grid April: Calendar Grid, Calendar Collector May: Calendar Grid, Number Line
NC.3.NF.4	Compare two fractions with the same numerator or the same denominator by reasoning about their size, using area and length models, and using the >, <, and = symbols. Recognize that comparisons are valid only when the two fractions refer to the same whole with denominators: halves, fourths and eighths; thirds and sixths.	**Bridges in Mathematics** Unit 4: M3 S2; M3 S5 Unit 6: M4 S2 Unit 7: M3 S1; M4 S2	**Number Corner** January: Calendar Grid February: Number Line March: Number Line

3 MD — Measurement and Data

Standard	Descriptor	Citations	
Solve problems involving measurement.			
NC.3.MD.1	Tell and write time to the nearest minute. Solve word problems involving addition and subtraction of time intervals within the same hour.	**Bridges in Mathematics** Unit 4: M2 S4; M2 S5 Unit 8: M2 S1; M3 S1; M3 S2; M3 S5; M4 S2	**Number Corner** January: Calendar Collector March: Calendar Grid
Solve problems involving customary measurement.			
NC.3.MD.2	• Estimate and measure lengths in customary units to the quarter-inch and half-inch, and feet and yards to the whole unit. • Estimate and measure capacity and weight in customary units to a whole number: cups, pints, quarts, gallons, ounces, and pounds. • Add, subtract, multiply, or divide to solve one-step word problems involving whole number measurements of length, weight, and capacity in the same customary units.	*Metric units are used for capacity and weight measurements in grade 3.* **Bridges in Mathematics** Unit 4: M1 S3; M1 S4; M1 S5; M1 S6; M2 S1; M2 S2; M2 S3 Unit 8: M1 S2; M1 S4; M2 S3; M3 S3; M3 S4; M3 S5	**Number Corner** October: Calendar Collector December: Calendar Collector

Standard	Descriptor	Citations	
Represent and interpret data.			
	Represent and interpret scaled picture and bar graphs:		
NC.3.MD.3	• Collect data by asking a question that yields data in up to four categories. • Make a representation of data and interpret data in a frequency table, scaled picture graph, and/or scaled bar graph with axes provided. • Solve one and two-step "how many more" and "how many less" problems using information from these graphs.	**Bridges in Mathematics** Unit 2: M3 S5; M4 S1; M4 S2 Unit 8: M1 S5; M2 S4; M3 S3	**Number Corner** September: Calendar Collector February: Solving Problems March: Calendar Grid May: Calendar Collector
Understand the concept of area.			
NC.3.MD.5	Find the area of a rectangle with whole-number side lengths by tiling without gaps or overlaps and counting unit squares.	**Bridges in Mathematics** Unit 5: M4 S1; M4 S2; M4 S3; M4 S4 Unit 6: M3 S5; M4 S1 Unit 8: M1 S2	**Number Corner** February: Calendar Grid March: Calendar Collector

Standard	Descriptor	Citations	
Understand the concept of area.			
	Relate area to the operations of multiplication and addition.		
NC.3.MD.7	• 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. • Multiply side lengths to find areas of rectangles with whole-number side lengths in the context of solving problems, and represent whole-number products as rectangular areas in math reasoning. • Use tiles and/or arrays to illustrate and explain that the area of a rectangle can be found by partitioning it into two smaller rectangles, and that the area of the large rectangle is the sum of the two smaller rectangles.	**Bridges in Mathematics** Unit 5: M4 S1; M4 S4 Unit 6: M3 S1; M3 S5 Unit 7: M1 S3; M1 S4; M2 S1; M2 S2; M2 S3; M2 S4; M2 S5 Unit 8: M1 S2; M1 S4; M4 S3	**Number Corner** November: Calendar Grid February: Calendar Grid March: Calendar Collector, Solving Problems May: Calendar Grid
Understand the concept of perimeter.			
NC.3.MD.8	Solve problems involving perimeters of polygons, including finding the perimeter given the side lengths, and finding an unknown side length.	**Bridges in Mathematics** Unit 6: M3 S1; M3 S2; M3 S3; M3 S4; M3 S5 Unit 8: M2 S1; M4 S3	**Number Corner** February: Calendar Grid March: Calendar Collector, Solving Problems

3 G — Geometry

Standard	Descriptor	Citations	
Reason with shapes and their attributes.			
	Reason with two-dimensional shapes and their attributes.		
NC.3.G.1	• Investigate, describe, and reason about composing triangles and quadrilaterals and decomposing quadrilaterals. • Recognize and draw examples and non-examples of types of quadrilaterals including rhombuses, rectangles, squares, parallelograms, and trapezoids.	**Bridges in Mathematics** Unit 4: M3 S3 Unit 6: M1 S1; M1 S2; M1 S3; M1 S4; M1 S5; M2 S1; M2 S2; M2 S3 M2 S4; M2 S5; M2 S6 Unit 8: M2 S2; M2 S5; M4 S3	**Number Corner** October: Calendar Grid