bridges in mathematics

GRADE 5

Bridges in Mathematics & Number Corner Third Edition

CORRELATIONS

Oklahoma Standards for Mathematics

number corner

5 1. Mathematical Actions & Processes

Standard	Descriptor	Citations	
MAP Mathematical Actions & Processes			
MAP.1	Develop a deep and flexible conceptual understanding.	**Bridges in Mathematics** Teachers Guide: Unit 1: M1–S1 Unit 2: M3_S2 Unit 3: M1–S3 Unit 4: M1–S3, M1–S4 Unit 5: M1–S3; M2–S1; M4–S5 Unit 6: M2–S3 Unit 7: M1–S3; M3–S2, M3–S3 Unit 8: M2–S3; M4–S3	**Number Corner** Teachers Guide: October: Number Strings January: Calendar Collector April: Solving Problems May: Number Strings
MAP.2	Develop accurate and appropriate procedural fluency.	**Bridges in Mathematics** Teachers Guide: Unit 1: M1–S2 Unit 2: M2–S3 Unit 3: M1–S4, M1–S5 Unit 4: M1–S3; M3–S4 Unit 5: M1–S1, M1–S5; M2–S4 Unit 6: M3–S3 Unit 7: M1–S1; M2–S1 Unit 8: M2–S4; M4–S1	**Number Corner** Teachers Guide: September: Number Strings November: Computational Fluency January: Computational Fluency
MAP.3	Develop strategies for problem-solving.	**Bridges in Mathematics** Teachers Guide: Unit 1: M2–S1 Unit 2: M1–S3 Unit 3: M1–S2 Unit 4: M1–S1, M1–S3 Unit 5: M2–S2; M3–S1 Unit 6: M3–S4 Unit 7: M2–S5 Unit 8: M2–S5	**Number Corner** Teachers Guide: September: Solving Problems November: Solving Problems January: Solving Problems May: Solving Problems

Standard	Descriptor	Citations	
MAP Mathematical Actions & Processes			
MAP.4	Develop mathematical reasoning.	**Bridges in Mathematics** Teachers Guide: Unit 1: M1–S3 Unit 2: M2–S1 Unit 3: M1–S1 Unit 4: M2–S4 Unit 5: M3–S1, M3–S2 Unit 6: M4–S1 Unit 7: M1–S6; M3–S4 Unit 8: M2–S4	**Number Corner** Teachers Guide: September: Calendar Grid December: Solving Problems February: Calendar Collector April: Number Strings
MAP.5	Develop a productive mathematical disposition.	**Bridges in Mathematics** Teachers Guide: Unit 1: M2–S3 Unit 2: M4–S1 Unit 3: M1–S3, M1–S5 Unit 4: M2–S4; M4–S2 Unit 5: M3–S3, M4–S4 Unit 6: M4–S3 Unit 7: M3–S1; M4–S1 Unit 8: M3–S2; M4–S2	**Number Corner** Teachers Guide: September: Computational Fluency November: Calendar Grid March: Computational Fluency May: Solving Problems
MAP.6	Develop the ability to make conjectures, model, and generalize.	**Bridges in Mathematics** Teachers Guide: Unit 1: M2–S4 Unit 2: M2–S1, M2–S3 Unit 3: M1–S1, M1–S4 Unit 4: M3–S2, M3–S3 Unit 5: M2–S2; M3–S4 Unit 6: M3–S1 Unit 7: M4–S2 Unit 8: M1–S3	**Number Corner** Teachers Guide: September: Calendar Collector December: Calendar Collector April: Calendar Collector

Standard	Descriptor	Citations	
MAP Mathematical Actions & Processes			
MAP.7	Develop the ability to communicate mathematically.	**Bridges in Mathematics** Teachers Guide: Unit 1: M3–S4 Unit 2: M4–S3 Unit 3: M1–S1, M1–S3 Unit 4: M2–S1; M3–S5; M4–S1 Unit 5: M2–S3; M4–S3 Unit 6: M2–S2 Unit 7: M4–S3 Unit 8: M1–S1	**Number Corner** Teachers Guide: September: Calendar Grid October: Computational Fluency January: Calendar Collector May: Calendar Grid

5 2. Numbers & Operations

Standard	Descriptor	Citations	
5.N.1	Read, write, represent, and compare fractions and decimals; recognize and write equivalent fractions; convert between fractions and decimals; use fractions and decimals in real-world and mathematical situations.		
5.N.1.1	Represent decimal fractions (e.g., 1/10, 1/100) using a variety of models (e.g., 10 by 10 grids, base-ten blocks, meter stick) and show the rational number relationships among fractions, decimals and whole numbers.	**Bridges in Mathematics** Teachers Guide: Unit 2: M1–S1, M1–S2 Unit 3: M1–S4 M1–S5; M2–S1, M2–S5, M2–S6, M2	**Number Corner** Teachers Guide: September: Calendar Grid November: Number String
5.N.1.2	Read, write, and represent decimals using place value to describe decimal numbers including fractional numbers as small as thousandths and whole numbers up to seven digits.	*Students read, write, and represent decimals using place value to describe whole numbers up to five digits.*	
		Bridges in Mathematics Teachers Guide: Unit 2: M1–S1, M1–S2; M2–S6; M3–S4 Unit 3: M1–S1, M1–S3, M1–S5; M2–S1, M2–S2, M2–S4, M2–S5, M2–S6, M2–S7	**Number Corner** Teachers Guide: October: Number Strings November: Calendar Collector, Number String January: Number Strings February: Calendar Collector
5.N.1.3	Compare and order decimals and fractions, including mixed numbers and fractions less than one, and locate on a number line.	**Bridges in Mathematics** Teachers Guide: Unit 2: M4–S1, M4–S3 Unit 3: M1–S3, M1–S5; M2–S2, M2–S3, M2–S7	**Number Corner** Teachers Guide: December: Computational Fluency

Standard	Descriptor	Citations	
5.N.2 Divide multi-digit numbers and solve real-world and mathematical problems using arithmetic.			
5.N.2.1	Estimate solutions to division problems to assess the reasonableness of results.	**Bridges in Mathematics** Teachers Guide: Unit 1: M4–S3	
5.N.2.2	Divide multi-digit numbers, by one- and two-digit divisors, based on knowledge of place value, including but not limited to standard algorithms.	**Bridges in Mathematics** Teachers Guide: Unit 1: M3–S5; M4–S4 Unit 3: M4–S1, M4–S2, M4–S3 Unit 4: M4–S2, M4–S3, M4–S4 Unit 5: M4–S1, M4–S2 Unit 7: M1–S4; M2–S5, M2–S6 Unit 8: M1–S5; M3–S3, M3–S4, M3–S5	**Number Corner** Teachers Guide: February: Computational Fluency March: Solving Problems
5.N.2.3	Recognize that remainders can be represented in a variety of ways, including a whole number, fraction, or decimal. Determine the most meaningful form of a remainder based on the context of the problem.	**Bridges in Mathematics** Teachers Guide: Unit 1: M4–S3 Unit 7: M2–S5, M2–S6	
5.N.2.4	Construct models to solve multi-digit whole number problems requiring addition, subtraction, multiplication, and division using representations, such as the inverse relationships between operations, technology use, and problem context to assess the reasonableness of results.	**Bridges in Mathematics** Teachers Guide: Unit 1: M2–S1; M3–S1, M3–S2, M3–S3; M4–S1, M4–S2, M4–S3, M4–S4, M4–S5 Unit 3: M4–S1, M4–S2, M4–S3 Unit 4: M1–S3; M3–S1, M3–S2; M4–S2, M4–S3	**Number Corner** Teachers Guide: February: Computational Fluency

Standard	Descriptor	Citations	
5.N.3 Add and subtract fractions with like and unlike denominators, mixed numbers, and decimals to solve real- world and mathematical problems.			
5.N.3.1	Estimate sums and differences of fractions with like and unlike denominators, mixed numbers, and decimals to assess the reasonableness of the results.	**Bridges in Mathematics** Teachers Guide: Unit 2: M2–S4; M3–S2	**Number Corner** Teachers Guide: April: Solving Problems
5.N.3.2	Illustrate addition and subtraction of fractions with like and unlike denominators, mixed numbers, and decimals using a variety of mathematical models (e.g., fraction strips, area models, number lines, fraction rods).	**Bridges in Mathematics** Teachers Guide: Unit 2: M1–S4, M1–S5; M2–S3, M2–S4; M3–S5; M4–S1, M4–S2, M4–S3 Unit 3: M1–S2; M2–S2	**Number Corner** Teachers Guide: October: Computational Fluency, Number Strings November: Number Strings
5.N.3.3	Add and subtract fractions with like and unlike denominators, mixed numbers, and decimals, involving money, measurement, geometry, and data. Use various models and efficient strategies, including but not limited to standard algorithms.	**Bridges in Mathematics** Teachers Guide: Unit 2: M1–S2, M1–S4, M1–S5; M2–S2, M2–S3, M2–S4, M2–S6; M3–S2, M3–S3, M3–S4, M3–S5; M4–S1, M4–S2, M4–S3 Unit 3: M1–S2; M2–S1, M2–S2, M2–S3, M2–S4, M2–S6; M3–S2, M3–S3, M3–S4 Unit 5: M1–S2, M1–S4	**Number Corner** Teachers Guide: September: Calendar Grid October: Computational Fluency, Solving Problems December: Computational Fluency January: Calendar Collector
5.N.3.4	Apply mental math and knowledge of place value (no written computations) to find 0.1 more or 0.1 less than a number, 0.01 more or 0.01 less than a number, and 0.001 more or 0.001 less than a number.	*This standard is beyond the scope of the grade 5 curriculum.*	

5 3. Algebraic Reasoning & Algebra

Standard	Descriptor	Citations	
5.A.1 Describe and graph patterns of change created through numerical patterns.			
5.A.1.1	Use tables and rules with up to two operations to describe patterns of change and make predictions and generalizations about various mathematical situations.	**Bridges in Mathematics** Teachers Guide: Unit 6: M1–S3, M1–S4, M1–S5, M1–S6	**Number Corner** Teachers Guide: December: Calendar Grid
5.A.1.2	Use a rule or table to represent ordered pairs of whole numbers and graph these ordered pairs on a coordinate plane, identifying the origin and axes in relation to the coordinates.	**Bridges in Mathematics** Teachers Guide: Unit 6: M1–S1, M1–S2, M1–S3, M1–S4, M1–S5, M1–S6, M1–S7 Unit 8: M1–S2, M1–S3, M1–S4; M2–S1, M2–S2; M3–S1; M4–S1	**Number Corner** Teachers Guide: October: Calendar Collector November: Calendar Grid December: Calendar Collector January: Calendar Grid May: Calendar Grid

5 4. Geometry & Measurement

Standard	Descriptor	Citations	
5.GM.1 Describe, identify, classify, and construct two- and three-dimensional figures using their geometric attributes.			
5.GM.1.1	Describe, identify, classify, and construct triangles (equilateral, right, scalene, isosceles) by their attributes using various mathematical models.	**Bridges in Mathematics** Teachers Guide: Unit 6: M2–S1, M2–S3, M2–S4	**Number Corner** Teachers Guide: November: Calendar Grid December: Calendar Grid
5.GM.1.2	Describe, identify, and classify three-dimensional figures (cubes, rectangular prisms, and pyramids) and their attributes (number of edges, faces, vertices, shapes of faces), given various mathematical models.	*Students do not describe, identify, or classify pyramids and they do not use the terms "faces" or "vertices."* **Bridges in Mathematics** Teachers Guide: Unit 1: M1–S4, M1–S5	
5.GM.1.3	Recognize and draw a net for a three-dimensional figure (cube, rectangular prism, pyramid).	*This standard is beyond the scope of the grade 5 curriculum.*	

Standard	Descriptor	Citations	
5.GM.2	Determine volume using the object's dimensions. Compare and analyze rectangular prisms with equivalent volume to recognize their different dimensions.		
5.GM.2.1	Determine the volume of rectangular prisms by the number of unit cubes (n) used to construct the shape and by the product of the dimensions of the prism $a \times b \times c = n$. Understand rectangular prisms of different dimensions (p, q, and r) can have the same volume if $a \times b \times c = p \times q \times r = n$.	**Bridges in Mathematics** Teachers Guide: Unit 1: M1–S4, M1–S5; M2–S1, M2–S2 Unit 6: M3–S1, M3–S2, M3–S3, M3–S4, M3–S5 Unit 8: M1–S5, M1–S6; M2–S2; M3–S4, M3–S5	**Number Corner** Teachers Guide: September: Calendar Collector October: Calendar Grid January: Solving Problems April: Calendar Grid
5.GM.2.2	Estimate the perimeter of polygons and create arguments for reasonable perimeter values of shapes that may include curves.	*This standard is beyond the scope of the grade 5 curriculum.*	

Standard	Descriptor	Citations	
5.GM.3	Understand angle, length, weight, and capacity as measurable attributes of real-world and mathematical objects, using various tools to measure them. Solve real-world problems of length.		
5.GM.3.1	Measure and compare angles according to size using various tools.	**Bridges in Mathematics** Teachers Guide: Unit 6: M2–S4	
5.GM.3.2	Measure the length of an object to the nearest whole centimeter or up to 1/16 inch using an appropriate instrument.	*Students measure the length of an object up to ¼ inch.*	
		Bridges in Mathematics Teachers Guide: Unit 3: M3–S2, M3–S3 Unit 8: M1–S5, M1–S6; M2–S2; M3–S3, M3–S4, M3–S5	**Number Corner** Teachers Guide: December: Number Corner March: Calendar Collector
5.GM.3.3	Apply the relationship between inches, feet, and yards to measure, convert, and compare objects to solve problems.	**Bridges in Mathematics** Teachers Guide: Unit 3: M3–S3 Unit 6: M4–S3 Unit 8: M2–S3, M2–S5; M3–S3, M3–S4, M3–S5; M4–S1	**Number Corner** Teachers Guide: February: Calendar Collector, Solving Problems
5.GM.3.4	Apply the relationship between millimeters, centimeters, and meters to measure, convert, and compare objects to solve problems.	**Bridges in Mathematics** Teachers Guide: Unit 3: M2–S7; M3–S1, M3–S2	
5.GM.3.5	Estimate lengths and geometric measurements to the nearest whole unit, using benchmarks in customary and metric measurement systems.	*This standard is beyond the scope of the grade 5 curriculum.*	

5 5. Data & Probability

Standard	Descriptor	Citations	
5.D.1 Create and analyze data to find the range and measures of central tendency (mean, median, mode).			
5.D.1.1	Find the measures of central tendency (i.e., mean, median, mode) and range of a set of data. Understand that the mean is a "leveling out" or central balance point of the data.	**Bridges in Mathematics** Teachers Guide: Unit 8: M1–S5	
5.D.1.2	Create and analyze line and double-bar graphs with increments of whole numbers, fractions, and decimals.	*Students do not create or analyze double-bar graphs and they do not create and analyze line graphs with increments of fractions or decimals.*	
		Bridges in Mathematics Teachers Guide: Unit 6: M1–S6, M1–S7 Unit 8: M1–S2, M1–S3, M1–S4; M2–S1, M2–S6; M3–S1	**Number Corner** Teachers Guide: December: Calendar Collector March: Calendar Collector