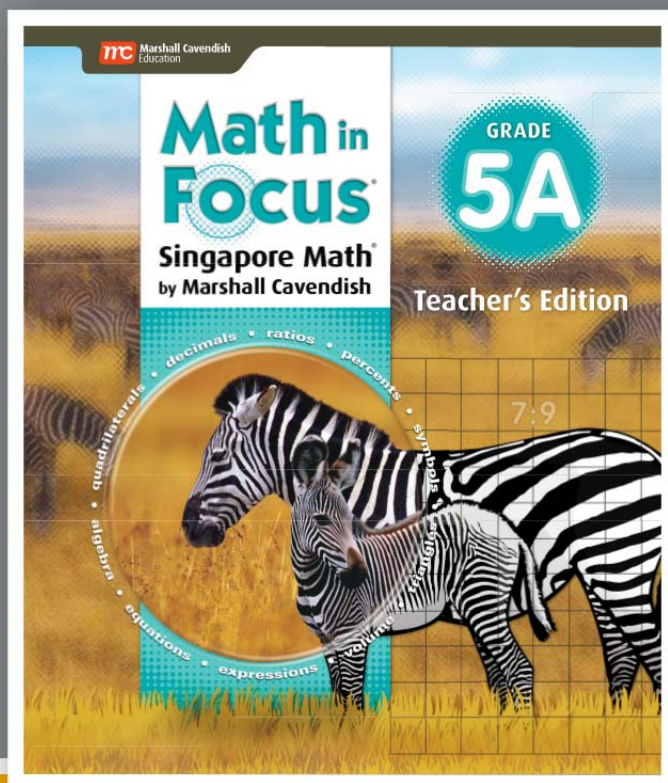


# Correlation to the Oklahoma Academic Standards for Mathematics Grade 5



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Grade 5



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correlated to the

**Oklahoma Academic Standards for Mathematics**  
**Grade 5**

Citations	Standard	Descriptor
<b>5.N.1 Divide multi-digit numbers and solve real-world and mathematical problems using arithmetic.</b>		
<u>Volume 5A:</u> SE/TE: 80–81 Workbook: 48  Online Lesson: 2.5a	5.N.1.1	Estimate solutions to division problems in order to assess the reasonableness of results.
<u>Volume 5A:</u> SE/TE: 82–89, 90–95, 96–108 Workbook: 49–54, 55–58, 63–74	5.N.1.2	Divide multi-digit numbers, by one- and two-digit divisors, using efficient and generalizable procedures, based on knowledge of place value, including standard algorithms.
<u>Volume 5A:</u> SE/TE: 122–126, 131–136, 137–139 Workbook: 93–98, 103–106, 107–108	5.N.1.3	Recognize that quotients can be represented in a variety of ways, including a whole number with a remainder, a fraction or mixed number, or a decimal and consider the context in which a problem is situated to select and interpret the most useful form of the quotient for the solution.
<u>Volume 5A:</u> SE/TE: 70–81, 96–108 Workbook: 43–48, 63–74	5.N.1.4	Solve real-world and mathematical problems requiring addition, subtraction, multiplication, and division of multi-digit whole numbers. Use various strategies, including the inverse relationships between operations, the use of technology, and the context of the problem to assess the reasonableness of results.

Citations	Standard	Descriptor
<b>5.N.2 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.</b>		
<u>Volume 5B:</u> SE/TE: 7–17 Workbook: 1–4	5.N.2.1	Represent decimal fractions (e.g., $\frac{1}{10}$ , $\frac{1}{100}$ ) using a variety of models (e.g., 10 by 10 grids, rational number wheel, base-ten blocks, meter stick) and make connections between fractions and decimals.
<u>Volume 5A:</u> SE/TE: 5–15, 16–19 Workbook: 1–6, 7–10  <u>Volume 5B:</u> SE/TE: 7–17, 18–22 Workbook: 1–4, 5–8	5.N.2.2	Represent, read and write decimals using place value to describe decimal numbers including fractional numbers as small as thousandths and whole numbers as large as millions.
<u>Volume 5B:</u> SE/TE: 18–22 Workbook: 5–8	5.N.2.3	Compare and order fractions and decimals, including mixed numbers and fractions less than one, and locate on a number line.
<u>Volume 5B:</u> SE/TE: 23–25 Workbook: 9–14	5.N.2.4	Recognize and generate equivalent decimals, fractions, mixed numbers, and fractions less than one in various contexts.
<b>5.N.3 Add and subtract fractions with like and unlike denominators, mixed numbers and decimals to solve real-world and mathematical problems.</b>		
<u>Volume 5A:</u> SE/TE: 122–126, 127–130 Workbook: 93–98, 99–102  <u>Volume 5B:</u> SE/TE: 68–74 Workbook: 37–40	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.
<u>Volume 5A:</u> SE/TE: 122–126, 127–130, 140–144, 145–149, 150–155 Workbook: 93–98, 99–102, 109–112, 113–116, 117–128	5.N.3.2	Illustrate addition and subtraction of fractions with like and unlike denominators, mixed numbers, and decimals using a variety of representations (e.g., fraction strips, area models, number lines, fraction rods).

Citations	Standard	Descriptor
<u>Volume 5A:</u> SE/TE: 122–126, 127–130, 140–144, 145–149, 150–155 Workbook: 93–98, 99–102, 109–112, 113–116, 117–128	5.N.3.3	Add and subtract fractions with like and unlike denominators, mixed numbers, and decimals, using efficient and generalizable procedures, including but not limited to standard algorithms in order to solve real-world and mathematical problems including those involving money, measurement, geometry, and data.
Online Lesson: 8.2a	5.N.3.4	Find 0.1 more than a number and 0.1 less than a number. Find 0.01 more than a number and 0.01 less than a number. Find 0.001 more than a number and 0.001 less than a number.
<b>5A.1 Describe and graph patterns of change created through numerical patterns.</b>		
<u>Volume 5A:</u> SE/TE: 208–218 Workbook: 175–182	5.A.1.1	Use tables and rules of up to two operations to describe patterns of change and make predictions and generalizations about real-world and mathematical problems.
<u>Volume 5B:</u> SE/TE: 136–143, 144–151 Workbook: 89–92, 93–96	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.
<b>5.A.2 Understand and interpret expressions, equations, and inequalities involving variables and whole numbers, and use them to represent and evaluate real-world and mathematical problems.</b>		
<u>Volume 5A:</u> SE/TE: 96–108, 226–235, 236–240 Workbook: 63–74, 187–188, 189–194	5.A.2.1	Generate equivalent numerical expressions and solve problems involving whole numbers by applying the commutative, associative, and distributive properties and order of operations (no exponents).
<u>Volume 5A:</u> SE/TE: 236–240 Workbook: 189–194	5.A.2.2	Determine whether an equation or inequality involving a variable is true or false for a given value of the variable.
<u>Volume 5A:</u> SE/TE: 219–225, 226–235 Workbook: 183–186, 187–188	5.A.2.3	Evaluate expressions involving variables when values for the variables are given.

Citations	Standard	Descriptor
<b>5.GM.1 Describe, classify, and draw representations of two- and three-dimensional figures.</b>		
<u>Volume 5B:</u> SE/TE: 186–190, 194–204 Workbook: 121–122, 125–132	5.GM.1.1	Describe, classify and construct triangles, including equilateral, right, scalene, and isosceles triangles. Recognize triangles in various contexts.
<u>Volume 5B:</u> SE/TE: 235–245, 246–250 Workbook: 159–162, 163–164	5.GM.1.2	Describe and classify three-dimensional figures including cubes, rectangular prisms, and pyramids by the number of edges, faces or vertices as well as the shapes of faces.
<u>Volume 5B:</u> SE/TE: 235–245, 246–250 Workbook: 159–162, 163–164	5.GM.1.3	Recognize and draw a net for a three-dimensional figure (e.g., cubes, rectangular prisms, pyramids).
<b>5.GM.2 Understand how the volume of rectangular prisms and surface area of shapes with polygonal faces are determined by the dimensions of the object and that shapes with varying dimensions can have equivalent values of surface area or volume.</b>		
<u>Volume 5B:</u> SE/TE: 275–285, 287–297 Workbook: 177–180, 181–190	5.GM.2.1	Recognize that the volume of rectangular prisms can be determined by the number of cubes ( $n$ ) and by the product of the dimensions of the prism ( $a \times b \times c = n$ ). Know that rectangular prisms of different dimensions ( $p$ , $q$ , and $r$ ) can have the same volume if $a \times b \times c = p \times q \times r = n$ .
<u>Volume 5B:</u> SE/TE: 267–274 Workbook: 173–176	5.GM.2.2	Recognize that the surface area of a three-dimensional figure with rectangular faces with whole numbered edges can be found by finding the area of each component of the net of that figure. Know that three-dimensional shapes of different dimensions can have the same surface area.
Online Lesson: 6.3a	5.GM.2.3	Find the perimeter of polygons and create arguments for reasonable values for the perimeter of shapes that include curves.

Citations	Standard	Descriptor
<b>5.GM.3 Understand angle and length as measurable attributes of real-world and mathematical objects. Use various tools to measure angles and lengths.</b>		
<u>Volume 5B:</u> SE/TE: 163–168, 169–173, 174–178 Workbook: 101–104, 105–108, 109–116	5.GM.3.1	Measure and compare angles according to size.
Online Lesson: 6.3a	5.GM.3.2	Choose an appropriate instrument and measure the length of an object to the nearest whole centimeter or 1/16-inch.
Online Lesson: 9.6a	5.GM.3.3	Recognize and use the relationship between inches, feet, and yards to measure and compare objects.
<u>Volume 5B:</u> SE/TE: 77-88, 96-99 Workbook: 43-56	5.GM.3.4	Recognize and use the relationship between millimeters, centimeters, and meters to measure and compare objects.
<b>5.D.1 Display and analyze data to find the range and measures of central tendency (mean, median, and mode).</b>		
Online Lesson: 11.a	5.D.1.1	Find the measures of central tendency (mean, median, or mode) and range of a set of data. Understand that the mean is a “leveling out” or central balance point of the data.
<u>Volume 5B:</u> SE/TE: 131–136, 137–143, 144–153 Workbook: 89–92, 97–100  Online Lesson: 11.2a, 11.3a	5.D.1.2	Create and analyze line and double-bar graphs with whole numbers, fractions, and decimals increments.

**The Oklahoma Academic Standards for Mathematics**  
**Mathematical Actions and Processes Standards**

Citations	Standard	Descriptor
<p><u>Volume 5A:</u>            SE/TE: 5–15, 15A–15C, 16–19, 19A, 20–24, 24A, 25–34, 35A–35C, 51, 115, 121–127, 128–132, 132A–132B, 133–136, 136A, 137–142, 142A, 146–150, 150A, 151–155, 155A, 172–175, 175A, 182–183, 183A, 184–188, 188A, 200–209, 211, 235–241, 241A, 242–251, 251A, 267–270, 270A, 271–275, 275A, 276–281, 281A, 289–295, 295A–295B, 296–302, 310–315, 315A–315B</p> <p><u>Volume 5B:</u>            SE/TE: 7–17, 17A, 18–22, 22A, 23–25, 25A–25B, 43–50, 52A–52B, 62–69, 69A, 77–88, 88A–88D, 103–110, 111–115, 115A, 139–142, 142A–142B, 143–149, 169–176, 176A, 221–230, 230A–230C, 237–238, 242, 243, 267–271, 274, 276, 276A, 285–293, 296, 310–313</p>	Develop a Deep and Flexible Conceptual Understanding	Demonstrate a deep and flexible conceptual understanding of mathematical concepts, operations, and relations while making mathematical and real-world connections. Students will develop an understanding of how and when to apply and use the mathematics they know to solve problems.
<p><u>Volume 5A</u>            SE/TE: 41–46, 47–50, 50A, 51–63, 63A–63B, 64–67, 67A, 68–73, 73A, 74–85, 85B–85C, 86–93, 93A, 94–101, 101A–101C, 102–108, 108A–108B, 109–114, 114A, 115A, 128–132, 132A–132B, 133–136, 136A, 137–142, 142A, 146–150, 150A, 151–155, 155A, 172–175, 175A, 182–183, 183A, 184–188, 188A, 193–199, 199A–199B, 200–210, 210A–210B</p> <p><u>Volume 5B:</u>            SE/TE: 25B, 36–42, 42A–42B, 53–61, 61A–61B, 62–69, 69A, 89–94, 94A–94B, 122, 122A, 124, 130, 130B, 131, 133, 298–309, 309A–309C</p>	Develop Accurate and Appropriate Procedural Fluency	Learn efficient procedures and algorithms for computations and repeated processes based on a strong sense of numbers. Develop fluency in addition, subtraction, multiplication, and division of numbers and expressions. Students will generate a sophisticated understanding of the development and application of algorithms and procedures.



Citations	Standard	Descriptor
<p><u>Volume 5A</u> SE/TE: 16, 21, 25A, 35, 66, 94–101, 101A–101C, 102–108, 108A–108B, 109–114, 114A, 115, 115A, 129, 134, 138, 144, 147, 151A, 156–159, 159A–159D, 161, 161A, 173, 176–181, 181A–181B, 182, 185, 189–192, 194, 211, 211A, 221, 225, 236, 252–256, 256A, 257A, 267A, 271A, 279, 282, 282A, 283, 290, 295A–295B, 297, 303–309, 309A, 311, 315B, 322–330, 331A–331B, 332</p> <p><u>Volume 5B:</u> SE/TE: 37, 44, 54, 63, 89–94, 94A–94B, 95, 104, 112, 115A, 122, 122A, 123–130, 130B, 131, 144, 151, 159, 165, 178, 178A, 190, 196, 201, 205, 205A, 213, 218, 220, 220A, 232, 236A–236B, 238, 249, 249A–249B, 278, 279–284, 284A–284B, 286, 292–295, 295A, 297–309, 309A–309C, 311, 312, 315A–315B</p>	Develop Strategies for Problem Solving	Analyze the parts of complex mathematical tasks and identify entry points to begin the search for a solution. Students will select from a variety of problem solving strategies and use corresponding multiple representations (verbal, physical, symbolic, pictorial, graphical, tabular) when appropriate. They will pursue solutions to various tasks from real-world situations and applications that are often interdisciplinary in nature. They will find methods to verify their answers in context and will always question the reasonableness of solutions.
<p><u>Volume 5A</u> SE/TE: 24A, 35C–35D, 63B, 73B, 149, 160, 210B, 211, 256A, 282</p> <p><u>Volume 5B:</u> SE/TE: 25B, 95, 95A, 193, 213–216, 216A, 230C, 234, 235–236, 273</p>	Develop Mathematical Reasoning	Explore and communicate a variety of reasoning strategies to think through problems. Students will apply their logic to critique the thinking and strategies of others to develop and evaluate mathematical arguments, including making arguments and counterarguments and making connections to other contexts.
<p><u>Volume 5A</u> SE/TE: 5–10, 12–15, 15A–15C, 51–63, 63A–63B, 66, 74–85, 115, 156–159, 159A–159D, 176–181, 181A–181B, 189–192, 200–210, 210A–210B, 220–223, 223A, 252–256, 256A, 291–293, 303–309, 309A, 331A–331B</p> <p><u>Volume 5B:</u> SE/TE: 7–17, 17A, 18–22, 22A, 61–69, 69A, 77–88, 88A–88D, 104–110, 110A–110B, 130B, 152–154, 305–306, 309, 314–315</p>	Develop a Productive Mathematical Disposition	Hold the belief that mathematics is sensible, useful and worthwhile. Students will develop the habit of looking for and making use of patterns and mathematical structures. They will persevere and become resilient, effective problem solvers.

Citations	Standard	Descriptor
<p><u>Volume 5A</u> SE/TE: 24, 64–67, 67A, 114B, 149D, 196, 199A–199B, 210, 210A–210B, 331</p> <p><u>Volume 5B:</u> SE/TE: 7–17, 17A, 18–22, 22A, 23–25, 25A–25B, 36–38, 104–108, 111–112, 116–121, 130, 130A, 165, 168A–168B, 314–315</p>	<p>Develop the Ability to Make Conjectures, Model, and Generalize</p>	<p>Make predictions and conjectures and draw conclusions throughout the problem solving process based on patterns and the repeated structures in mathematics. Students will create, identify, and extend patterns as a strategy for solving and making sense of problems.</p>
<p><u>Volume 5A</u> SE/TE: 11, 15B–15C, 17–19, 19A, 133–136, 136A, 137–142, 142A, 143–145, 145A, 151–155, 155A, 156–159, 159A, 172–175, 175A, 176–181, 181A–181B, 182–183, 183A, 184–188, 188A, 189–92, 224–234, 234A–234B, 267–270, 270A, 276–281, 281A, 283</p> <p><u>Volume 5B:</u> SE/TE: 18, 21, 23–25, 25A–25B, 43–50, 52, 52A–52B, 53–61, 61A–61B, 76, 76A, 88D, 90–94, 94A–94B, 104–110, 110A–110B, 131, 145–149, 154, 157, 157A, 160–163, 163A–163B, 168, 192, 194A–194B, 199, 199A, 203–204, 204A–204B, 212–216, 267–271</p>	<p>Develop the Ability to Communicate Mathematically</p>	<p>Students will discuss, write, read, interpret and translate ideas and concepts mathematically. As they progress, students’ ability to communicate mathematically will include their increased use of mathematical language and terms and analysis of mathematical definitions.</p>