

CORRELATIONS WITH OKLAHOMA ACADEMIC STANDARDS

2023 PK-12 Mathematics and Early Childhood (Comprehensive)

State Subject Codes are available at <https://sde.ok.gov/accreditation-standards-division>
(in the “Documents” section, select “Subject Codes”)

Oklahoma Academic Standards are available at <https://sde.ok.gov/oklahoma-academic-standards>

Subject and Oklahoma State Subject Code: Mathematics 2204

Title of Textbook / Instructional Material Program: i-Ready Classroom Mathematics
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Grade(s): 4

Oklahoma Academic Standard(s) Correlation

(Include each applicable Oklahoma Academic Standard, creating additional rows in the table as needed.)

Page Number(s) identifying the correlation location	Standard/Objective and Correlating Content
<i>Example: Pages 23-27</i>	<i>Example: PK.N.1.1 Count aloud forward in sequence by 1s to 20.</i>
Grade 4: Lesson 1: Overview: TG pp. 3a–3b Explore: pp. 5–8; Develop: pp. 9–12; Refine: pp. 13–14	4.N.1.1 Read, write, discuss, and represent whole numbers up to 1,000,000. Representations may include numerals, words, pictures, number lines, and manipulatives. Lesson 1: Understand Place Value
Grade 4: Lesson 1: Overview: TG pp. 3a–3b Explore: pp. 5–8; Develop: pp. 9–12; Refine: pp. 13–14	4.N.1.2 Use place value to describe whole numbers between 1,000 and 1,000,000 in terms of millions, hundred thousands, ten thousands, thousands, hundreds, tens, and ones with written, standard, and expanded forms. Lesson 1: Understand Place Value

<p><i>Grade 3:</i> Lesson 9: Overview: TG pp. 209a–209b Explore: pp. 211–214; Develop: pp. 215–220; Refine: pp. 221–224</p> <p><i>Grade 4:</i> Lesson 1: Overview: TG pp. 3a–3b Explore: pp. 5–8; Develop: pp. 9–12; Refine: pp. 13–14 Lesson 11: Overview: TG pp. 229a–229b Explore: pp. 231–234; Develop: pp. 235–246; Refine: pp. 247–250 Lesson 12: Overview: TG pp. 251a–251b Explore: pp. 253–256; Develop: pp. 257–262; Refine: pp. 263–266 Lesson 14: Overview: TG pp. 289a–289b Explore: pp. 291–294; Develop: pp. 295–306; Refine: pp. 307–310 Lesson 15: Overview: TG pp. 311a–311b Explore: pp. 313–316; Develop: pp. 317–322; Refine: pp. 323–326</p>	<p>4.N.1.3 Applying knowledge of place value, use mental strategies (no written computations) to multiply or divide a number by 10, 100 and 1,000.</p> <p><i>This standard is met through lessons across several texts.</i></p> <p><i>Grade 3:</i> Lesson 9: Use Place Value to Multiply</p> <p><i>Grade 4:</i> Lesson 1: Understand Place Value Lesson 11: Multiply by One-Digit Numbers Lesson 12: Multiply by Two-Digit Numbers Lesson 14: Divide Three-Digit Numbers Lesson 15: Divide Four-Digit Numbers</p>
<p><i>Grade 4:</i> Lesson 1: Overview: TG pp. 3a–3b Explore: pp. 5–8; Develop: pp. 9–12; Refine: pp. 13–14 Lesson 2: Overview: TG pp. 15a–15b Explore: pp. 17–20; Develop: pp. 21–26; Refine: pp. 27–30</p>	<p>4.N.1.4 Use place value to compare and order whole numbers up to 1,000,000, using comparative language, numbers, and symbols.</p> <p>Lesson 1: Understand Place Value Lesson 2: Compare Whole Numbers</p>
<p><i>Grade 3:</i> Lesson 12: Overview: TG pp. 249a–249b Explore: pp. 251–254; Develop: pp. 255–266; Refine: pp. 267–270</p> <p><i>Grade 4:</i> Lesson 7: Overview: TG pp. 119a–119b Explore: pp. 121–124; Develop: pp. 113–116; Refine: pp. 137–140 Lesson 8: Overview: TG pp. 141a–141b Explore: pp. 143–146; Develop: pp. 147–164; Refine: pp. 165–168</p>	<p>4.N.2.1 Demonstrate fluency with multiplication and division facts with factors up to 12.</p> <p><i>This standard is met through lessons across several texts.</i></p> <p><i>Grade 3:</i> Lesson 12: Multiplication and Division Facts</p> <p><i>Grade 4:</i> Lesson 7: Multiplication and Division in Word Problems Lesson 8: Multiples and Factors</p>

<p><i>Grade 4:</i> Lesson 11: Overview: TG pp. 229a–229b Explore: pp. 231–234; Develop: pp. 235–246; Refine: pp. 247–250 Lesson 12: Overview: TG pp. 251a–251b Explore: pp. 253–256; Develop: pp. 257–262; Refine: pp. 263–266</p>	<p>4.N.2.2 Multiply 3-digit by 1-digit and 2-digit by 2-digit whole numbers, using various strategies, including but not limited to standard algorithms.</p> <p>Lesson 11: Multiply by One-Digit Numbers Lesson 12: Multiply by Two-Digit Numbers</p>
<p><i>Grade 4:</i> Lesson 11: Overview: TG pp. 229a–229b Explore: pp. 231–234; Develop: pp. 235–246; Refine: pp. 247–250 Lesson 12: Overview: TG pp. 251a–251b Explore: pp. 253–256; Develop: pp. 257–262; Refine: pp. 263–266</p>	<p>4.N.2.3 Estimate products of 3-digit by 1-digit and 2-digit by 2-digit whole number factors using a variety of strategies (e.g., rounding, front end estimation, adjusting, compatible numbers) to assess the reasonableness of results. Explore larger numbers using technology to investigate patterns.</p> <p>Lesson 11: Multiply by One-Digit Numbers Lesson 12: Multiply by Two-Digit Numbers</p>
<p><i>Grade 4:</i> Lesson 10: Overview: TG pp. 191a–191b Explore: pp. 193–196; Develop: pp. 197–208; Refine: pp. 209–212</p>	<p>4.N.2.4 Apply and analyze models to solve multi-step problems requiring the use of addition, subtraction, and multiplication of multi-digit whole numbers. Use various strategies, including the relationship between operations, the use of appropriate technology, and the context of the problem to assess the reasonableness of results.</p> <p>Lesson 10: Model and Solve Multi-Step Problems</p>
<p><i>Grade 4:</i> Lesson 14: Overview: TG pp. 289a–289b Explore: pp. 291–294; Develop: pp. 295–306; Refine: pp. 307–310</p>	<p>4.N.2.5 Use strategies and algorithms (e.g., mental strategies, standard algorithms, partial quotients, repeated subtraction, the commutative, associative, and distributive properties) based on knowledge of place value, equality, and properties of operations to divide a 3-digit dividend by a 1-digit whole number divisor, with and without remainders.</p> <p>Lesson 14: Divide Three-Digit Numbers</p>
<p><i>Grade 4:</i> Lesson 17: Overview: TG pp. 365a–365b Explore: pp. 367–370; Develop: pp. 371–374; Refine: pp. 375–376</p>	<p>4.N.3.1 Represent and rename equivalent fractions using fraction models (e.g., parts of a set, area models, fraction strips, number lines).</p> <p>Lesson 17: Understand Equivalent Fractions</p>

<p><i>Grade 4:</i> Lesson 18: Overview: TG pp. 377a–377b Explore: pp. 379–382; Develop: pp. 383–394; Refine: pp. 395–398</p>	<p>4.N.3.2 Use benchmark fractions (0, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$, 1) to locate additional fractions with denominators up to twelfths on a number line.</p> <p>Lesson 18: Compare Fractions</p>
<p><i>Grade 4:</i> Lesson 18: Overview: TG pp. 377a–377b Explore: pp. 379–382; Develop: pp. 383–394; Refine: pp. 395–398</p>	<p>4.N.3.3 Use models to order and compare whole numbers and fractions less than and greater than one, using comparative language and symbols.</p> <p>Lesson 18: Compare Fractions</p>
<p><i>Grade 4:</i> Lesson 19: Overview: TG pp. 399a–399b Explore: pp. 401–404; Develop: pp. 405–408; Refine: pp. 409–420 Lesson 20: Overview: TG pp. 411a–411b Explore: pp. 413–416; Develop: pp. 417–434; Refine: pp. 435–438</p>	<p>4.N.3.4 Decompose a fraction into a sum of fractions with the same denominator in more than one way, using concrete and pictorial models and recording results with numerical representations (e.g., $\frac{3}{4} = \frac{1}{4} + \frac{1}{4} + \frac{1}{4}$ and $\frac{3}{4} = \frac{2}{4} + \frac{1}{4}$).</p> <p>Lesson 19: Understand Fraction Addition and Subtraction Lesson 20: Add and Subtract Fractions</p>
<p><i>Grade 4:</i> Lesson 20: Overview: TG pp. 411a–411b Explore: pp. 413–416; Develop: pp. 417–434; Refine: pp. 435–438</p>	<p>4.N.3.5 Use models to add and subtract fractions with like denominators.</p> <p>Lesson 20: Add and Subtract Fractions</p>
<p><i>Grade 4:</i> Lesson 25: Overview: TG pp. 517a–517b Explore: pp. 519–522; Develop: pp. 523–528; Refine: pp. 529–532</p>	<p>4.N.3.6 Represent tenths and hundredths with concrete and pictorial models, making connections between fractions and decimals.</p> <p>Lesson 25: Fractions as Tenths and Hundredths</p>
<p><i>Grade 4:</i> Lesson 26: Overview: TG pp. 533a–533b Explore: pp. 535–538; Develop: pp. 539–550; Refine: pp. 551–554</p>	<p>4.N.3.7 Read and write decimals in standard, word, and expanded form up to at least the hundredths place in a variety of contexts, including money.</p> <p>Lesson 26: Relate Decimals and Fractions</p>
<p><i>Grade 4:</i> Lesson 27: Overview: TG pp. 555a–555b Explore: pp. 557–560; Develop: pp. 561–572; Refine: pp. 553–576</p>	<p>4.N.3.8 Compare and order decimals and whole numbers using place value and various models including but not limited to grids, number lines, and base 10 blocks.</p> <p>Lesson 27: Compare Decimals</p>

<p><i>Grade 4:</i> Lesson 18: Overview: TG pp. 377a–377b Explore: pp. 379–382; Develop: pp. 383–394; Refine: pp. 395–398 Lesson 27: Overview: TG pp. 555a–555b Explore: pp. 557–560; Develop: pp. 561–572; Refine: pp. 553–576</p>	<p>4.N.3.9 Compare and order benchmark fractions (0, $\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$, 1) and decimals (0, 0.25, 0.50, 0.75, 1.00) in a variety of representations.</p> <p>Lesson 18: Compare Fractions Lesson 27: Compare Decimals</p>
<p><i>Grade 2:</i> Lesson 10: Overview: TG pp. 253a–253b Explore: pp. 255–258; Develop: pp. 259–276; Refine: pp. 277–282</p>	<p>4.N.4.1 Select the fewest number of coins for a given amount of money up to one dollar.</p> <p><i>This standard is met in Grade 2:</i> Lesson 10: Solve Word Problems Involving Money</p>
<p><i>Grade 4:</i> Lesson 28: Overview: TG pp. 577a–577b Explore: pp. 579–582; Develop: pp. 583–594; Refine: pp. 595–598</p>	<p>4.N.4.2 Given a total cost (dollars and coins up to twenty dollars) and amount paid (dollars and coins up to twenty dollars), find the change required in a variety of ways.</p> <p>Lesson 28: Problems About Time and Money</p>
<p><i>Grade 4:</i> Lesson 9: Overview: TG pp. 169a–169b Explore: pp. 171–174; Develop: pp. 175–186; Refine: pp. 187–190</p>	<p>4.A.1.1 Create an input/output chart or table to represent or extend a numerical pattern.</p> <p>Lesson 9: Number and Shape Patterns</p>
<p><i>Grade 4:</i> Lesson 9: Overview: TG pp. 169a–169b Explore: pp. 171–174; Develop: pp. 175–186; Refine: pp. 187–190</p>	<p>4.A.1.2 Describe the single operation rule for a pattern from an input/output table or function machine involving any operation of a whole number.</p> <p>Lesson 9: Number and Shape Patterns</p>
<p><i>Grade 4:</i> Lesson 9: Overview: TG pp. 169a–169b Explore: pp. 171–174; Develop: pp. 175–186; Refine: pp. 187–190</p>	<p>4.A.1.3 Construct models to show growth patterns involving geometric shapes and define the single operation rule of the pattern.</p> <p>Lesson 9: Number and Shape Patterns</p>
<p><i>Grade 4:</i> Lesson 7: Overview: TG pp. 119a–119b Explore: pp. 121–124; Develop: pp. 125–136; Refine: pp. 137–140</p>	<p>4.A.2.1 Use the relationships between multiplication and division with the properties of multiplication to solve problems and find values for variables that make number sentences true.</p> <p>Lesson 7: Multiplication and Division in Word Problems</p>

<p><i>Grade 4:</i> Lesson 10: Overview: TG pp. 191a–191b Explore: pp. 193–196; Develop: pp. 197–208; Refine: pp. 209–212</p>	<p>4.A.2.2 Solve for a variable in an equation involving addition, subtraction, multiplication, or division with whole numbers. Analyze models to represent number sentences and vice versa.</p> <p>Lesson 10: Model and Solve Multi-Step Problems</p>
<p><i>Grade 3:</i> Lesson 11: Overview: TG pp. 237a–237b Explore: pp. 239–242; Develop: pp. 243–246; Refine: pp. 247–248</p> <p><i>Grade 4:</i> Lesson 6: Overview: TG pp. 107a–107b Explore: pp. 109–112; Develop: pp. 125–136; Refine: pp. 117–118 Lesson 7: Overview: TG pp. 119a–119b Explore: pp. 121–124; Develop: pp. 113–116; Refine: pp. 137–140 Lesson 10: Overview: TG pp. 191a–191b Explore: pp. 193–196; Develop: pp. 197–208; Refine: pp. 209–212</p>	<p>4.A.2.3 Determine the unknown addend or factor in equivalent and non-equivalent expressions (e.g., $5 + 6 = 4 + \square$, $3 \cdot 8 < 3 \cdot \square$).</p> <p><i>This standard is met through lessons across several texts.</i></p> <p><i>Grade 3:</i> Lesson 11: Understand How Multiplication and Division Are Connected</p> <p><i>Grade 4:</i> Lesson 6: Understand Multiplication as a Comparison Lesson 7: Multiplication and Division in Word Problems Lesson 10: Model and Solve Multi-Step Problems</p>
<p><i>Grade 4:</i> Lesson 30: Overview: TG pp. 643a–643b Explore: pp. 645–648; Develop: pp. 649–666; Refine: pp. 667–670</p>	<p>4.GM.1.1 Identify points, lines, line segments, rays, angles, endpoints, and parallel and perpendicular lines in various models.</p> <p>Lesson 30: Points, Lines, Rays, and Angles</p>
<p><i>Grade 4:</i> Lesson 33: Overview: TG pp. 715a–715b Explore: pp. 717–720; Develop: pp. 721–738; Refine: pp. 739–742</p>	<p>4.GM.1.2 Describe, classify, and construct quadrilaterals, including squares, rectangles, trapezoids, rhombuses, parallelograms, and kites. Recognize quadrilaterals in various models.</p> <p>Lesson 33: Classify Two-Dimensional Figures</p>

<p><i>Grade 1:</i> Lesson 22: Overview: TG pp. 557a–557d Explore: pp. 559–560; Develop: pp. 561–572; Refine: pp. 573–580</p> <p><i>Grade 6:</i> Lesson 3: Overview: TG pp. 41a–41b Explore: pp. 43–46; Develop: pp. 47–58; Refine: pp. 59–62</p>	<p>4.GM.1.3 Given two three-dimensional shapes, identify each shape. Compare and contrast their similarities and differences based on their attributes.</p> <p><i>This standard is met in Grade 1:</i> Lesson 22: Shapes</p> <p><i>It is extended in Grade 6:</i> Lesson 3: Use Nets to Find Surface Area</p>
<p><i>Grade 4:</i> Lesson 31: Overview: TG pp. 671a–671b Explore: pp. 673–676; Develop: pp. 677–688; Refine: pp. 689–692</p>	<p>4.GM.2.1 Measure angles in geometric figures and real-world objects with a protractor or angle ruler.</p> <p>Lesson 31: Angles</p>
<p><i>Grade 3:</i> Lesson 15: Overview: TG pp. 313a–313b Explore: pp. 315–318; Develop: pp. 319–330; Refine: pp. 331–334 Lesson 16: Overview: TG pp. 335a–335b Explore: pp. 337–340; Develop: pp. 341–352; Refine: pp. 353–356</p> <p><i>Grade 4:</i> Lesson 16: Overview: TG pp. 327a–327b Explore: pp. 329–332; Develop: pp. 333–344; Refine: pp. 345–348</p>	<p>4.GM.2.2 Find the area of polygons by determining if they can be decomposed into rectangles.</p> <p><i>This standard is met through lessons across several texts.</i></p> <p><i>Grade 3:</i> Lesson 15: Multiply to Find Area Lesson 16: Add Areas</p> <p><i>Grade 4:</i> Lesson 16: Find Perimeter and Area</p>
<p><i>Grade 5:</i> Lesson 1: Overview: TG pp. 3a–3b Explore: pp. 5–8; Develop: pp. 9–12; Refine: pp. 13–14 Lesson 2: Overview: TG pp. 15a–15b Explore: pp. 17–20; Develop: pp. 21–26; Refine: pp. 27–30</p>	<p>4.GM.2.3 Develop the concept that the volume of rectangular prisms with whole-number edge lengths can be found by counting the total number of same-sized unit cubes that fill a shape without gaps or overlaps. Use a variety of tools and create models to determine the volume using appropriate measurements (e.g., cm^3).</p> <p><i>This standard is met in Grade 5:</i> Lesson 1: Understand Volume Lesson 2: Find Volume Using Unit Cubes</p>

<p><i>Grade 2:</i> Lesson 20: Overview: TG pp. 507a–507b Explore: pp. 509–512; Develop: pp. 513–518; Refine: pp. 519–524 Lesson 21: Overview: TG pp. 525a–525b Explore: pp. 527–530; Develop: pp. 531–542; Refine: pp. 543–548</p> <p><i>Grade 3:</i> Lesson 26: Overview: TG pp. 549a–549b Explore: pp. 551–554; Develop: pp. 555–566; Refine: pp. 567–570</p>	<p>4.GM.2.4 Choose an appropriate instrument to measure the length of an object to the nearest whole centimeter or quarter inch.</p> <p><i>This standard is met through lessons across several texts.</i></p> <p><i>Grade 2:</i> Lesson 20: Measure in Inches and Centimeters Lesson 21: Measure in Feet and Meters</p> <p><i>Grade 3:</i> Lesson 26: Measure Length and Plot Data on Line Plots</p>
<p><i>Grade 4:</i> Lesson 13: Overview: TG pp. 267a–267b Explore: pp. 269–272; Develop: pp. 273–284; Refine: pp. 285–288</p>	<p>4.GM.2.5 Recognize and use the relationship between inches, feet, and yards to measure and compare objects.</p> <p>Lesson 13: Use Multiplication to Convert Measurements</p>
<p><i>Grade 4:</i> Lesson 13: Overview: TG pp. 267a–267b Explore: pp. 269–272; Develop: pp. 273–284; Refine: pp. 285–288</p>	<p>4.GM.2.6 Recognize and use the relationship between millimeters, centimeters, and meters to measure and compare objects.</p> <p>Lesson 13: Use Multiplication to Convert Measurements</p>
<p><i>This standard builds upon content in:</i> <i>Grade 4:</i> Lesson 29: Overview: TG pp. 599a–599b Explore: pp. 601–604; Develop: pp. 605–622; Refine: pp. 623–626</p>	<p>4.GM.2.7 Determine and justify the best use of customary and metric measurements in a variety of situations (liquid volumes, mass vs. weight, temperatures above 0 (zero) degrees, and length).</p> <p><i>This standard builds upon content in:</i> Lesson 29: Problems About Length, Liquid Volume, Mass, and Weight</p>
<p><i>Grade 4:</i> Lesson 28: Overview: TG pp. 577a–577b Explore: pp. 579–582; Develop: pp. 583–594; Refine: pp. 595–598</p>	<p>4.GM.3.1 Determine elapsed time.</p> <p>Lesson 28: Problems About Time and Money</p>

<p><i>Grade 4:</i> Lesson 13: Overview: TG pp. 267a–267b Explore: pp. 269–272; Develop: pp. 273–284; Refine: pp. 285–288 Lesson 28: Overview: TG pp. 577a–577b Explore: pp. 579–582; Develop: pp. 583–594; Refine: pp. 595–598</p>	<p>4.GM.3.2 Convert one measure of time to another including seconds to minutes, minutes to hours, hours to days, and vice versa, using various models.</p> <p>Lesson 13: Use Multiplication to Convert Measurements Lesson 28: Problems About Time and Money</p>
<p><i>Grade 4:</i> Lesson 22: Overview: TG pp. 461a–461b Explore: pp. 463–466; Develop: pp. 467–484; Refine: pp. 485–488</p>	<p>4.D.1.1 Create and organize data on a frequency table or line plot marked with whole numbers and fractions using appropriate titles, labels, and units.</p> <p>Lesson 22: Add and Subtract Fractions in Line Plots</p>
<p><i>This standard builds upon content in:</i> <i>Grade 3:</i> Lesson 19: Overview: TG pp. 413a–413b Explore: pp. 415–418; Develop: pp. 419–436; Refine: pp. 437–440 Lesson 26: Overview: TG pp. 549a–549b Explore: pp. 551–554; Develop: pp. 555–566; Refine: pp. 567–570</p>	<p>4.D.1.2 Organize data sets to create tables, bar graphs, timelines, and Venn diagrams. The data may include benchmark fractions or decimals ($\frac{1}{4}$, $\frac{1}{3}$, $\frac{1}{2}$, $\frac{2}{3}$, $\frac{3}{4}$, 0.25, 0.50, 0.75).</p> <p><i>This standard builds upon content in:</i> <i>Grade 3:</i> Lesson 19: Scaled Graphs Lesson 26: Measure Length and Plot Data on Line Plots</p>
<p><i>Grade 5:</i> Lesson 27: Overview: TG pp. 551a–551b Explore: pp. 553–556; Develop: pp. 557–568; Refine: pp. 569–572</p>	<p>4.D.1.3 Solve one- and two-step problems by analyzing data in whole number, decimal, or fraction form in a frequency table and line plot.</p> <p><i>This standard is met in Grade 5:</i> Lesson 27: Make Line Plots and Interpret Data</p>