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

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Subject and Oklahoma State Subject Code: Pre-Algebra 2217

Title of Textbook / Instructional Material Program: i-Ready Classroom Mathematics ©2024

Grade(s):Pre-Algebra

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
Example: Pages 23-27	*Example: PK.N.1.1 Count aloud forward in sequence by 1s to 20.*
Grade 8: **Lesson 19:** Overview: TG pp. 447a–447b Explore: pp. 449–452; Develop: pp. 453–464; Refine: pp. 465–468 **Lesson 20:** Overview: TG pp. 469a–469b Explore: pp. 471–474; Develop: pp. 475–486; Refine: pp. 487–490	**PA.N.1.1** Develop and apply the properties of integer exponents, including $a^0 = 1$ (with $a \neq 0$), to generate equivalent numerical and algebraic expressions. **Lesson 19:** Apply Exponent Properties for Positive Integer Exponents **Lesson 20:** Apply Exponent Properties for All Integer Exponents
Grade 8: **Lesson 22:** Overview: TG pp. 513a–513b Explore: pp. 515–518; Develop: pp. 519–536; Refine: pp. 537–540	**PA.N.1.2** Express and compare approximations of very large and very small numbers using scientific notation. **Lesson 22:** Work with Scientific Notation
Grade 8: **Lesson 22:** Overview: TG pp. 513a–513b Explore: pp. 515–518; Develop: pp. 519–536; Refine: pp. 537–540	**PA.N.1.3** Multiply and divide numbers expressed in scientific notation and express the answer in scientific notation. **Lesson 22:** Work with Scientific Notation

Grade 8: **Lesson 23:** Overview: TG pp. 557a–557b Explore: pp. 559–562; Develop: pp. 563–574; Refine: pp. 575–578 **Lesson 24:** Overview: TG pp. 579a–579b Explore: pp. 581–584; Develop: pp. 585–590; Refine: pp. 591–594 *Grade 8:* **Lesson 25:** Overview: TG pp. 595a–595b Explore: pp. 597–600; Develop: pp. 601–612; Refine: pp. 613–616	**PA.N.1.4** Compare and order real numbers; locate real numbers on a number line. Identify the square roots of perfect squares to 400 or, if it is not a perfect square root, locate it as an irrational number between two consecutive positive integers. **Lesson 23:** Find Square Roots and Cube Roots to Solve Problems **Lesson 24:** Express Rational Numbers as Fractions and Decimals **Lesson 25:** Find Rational Approximations of Irrational Numbers
Grade 8: **Lesson 15:** Overview: TG pp. 347a–347b Explore: pp. 349–352; Develop: pp. 353–356; Refine: pp. 357–358	**PA.A.1.1** Recognize that a function is a relationship between an independent variable and a dependent variable in which the value of the independent variable determines the value of the dependent variable. **Lesson 15:** Understand Functions
Grade 8: **Lesson 16:** Overview: TG pp. 359a–359b Explore: pp. 361–364; Develop: pp. 365–382; Refine: pp. 383–386	**PA.A.1.2** Use linear functions to represent and model mathematical situations. **Lesson 16:** Use Functions to Model Linear Relationships
Grade 8: **Lesson 8:** Overview: TG pp. 175a–175b Explore: pp. 177–180; Develop: pp. 181–192; Refine: pp. 193–196 **Lesson 9:** Overview: TG pp. 197a–197b Explore: pp. 199–202; Develop: pp. 203–220; Refine: pp. 221–224	**PA.A.1.3** Identify a function as linear if it can be expressed in the form $y=mx + b$ or if its graph is a non-vertical straight line. **Lesson 8:** Graph Proportional Relationships and Define Slope **Lesson 9:** Derive and Graph Linear Equations of the Form y = mx + b
Grade 8: **Lesson 17:** Overview: TG pp. 387a–387b Explore: pp. 389–392; Develop: pp. 393–404; Refine: pp. 405–408	**PA.A.2.1** Represent linear functions with tables, verbal descriptions, symbols, and graphs; translate from one representation to another. **Lesson 17:** Compare Different Representations of Functions
Grade 8: **Lesson 16:** Overview: TG pp. 359a–359b Explore: pp. 361–364; Develop: pp. 365–382; Refine: pp. 383–386	**PA.A.2.2** Identify, describe, and analyze linear relationships between two variables. **Lesson 16:** Use Functions to Model Linear Relationships

Grade 8: **Lesson 15:** Overview: TG pp. 347a–347b Explore: pp. 349–352; Develop: pp. 353–356; Refine: pp. 357–358 **Lesson 16:** Overview: TG pp. 359a–359b Explore: pp. 361–364; Develop: pp. 365–382; Refine: pp. 383–386	**PA.A.2.3** Identify graphical properties of linear functions, including slope and intercepts. Know that the slope equals the rate of change, and that the y-intercept is zero when the function represents a proportional relationship. **Lesson 15:** Understand Functions **Lesson 16:** Use Functions to Model Linear Relationships
Grade 8: **Lesson 18:** Overview: TG pp. 409a–409b Explore: pp. 411–414; Develop: pp. 415–426; Refine: pp. 427–430	**PA.A.2.4** Predict the effect on the graph of a linear function when the slope or y-intercept changes. Use appropriate tools to examine these effects. **Lesson 18:** Analyze Functional Relationships Qualitatively
Grade 8: **Lesson 15:** Overview: TG pp. 347a–347b Explore: pp. 349–352; Develop: pp. 353–356; Refine: pp. 357–358 **Lesson 16:** Overview: TG pp. 359a–359b Explore: pp. 361–364; Develop: pp. 365–382; Refine: pp. 383–386 **Lesson 17:** Overview: TG pp. 387a–387b Explore: pp. 389–392; Develop: pp. 393–404; Refine: pp. 405–408 **Lesson 18:** Overview: TG pp. 409a–409b Explore: pp. 411–414; Develop: pp. 415–426; Refine: pp. 427–430	**PA.A.2.5** Solve problems involving linear functions and interpret results in the original context. **Lesson 15:** Understand Functions **Lesson 16:** Use Functions to Model Linear Relationships **Lesson 17:** Compare Different Representations of Functions **Lesson 18:** Analyze Functional Relationships Qualitatively
Grade 7: **Lesson 15:** Overview: TG pp. 307a–307b Explore: pp. 309–312; Develop: pp. 313–324; Refine: pp. 325–328	**PA.A.3.1** Use substitution to simplify and evaluate algebraic expressions. *This standard is met in Grade 7:* **Lesson 15:** Write Equivalent Expressions Involving Rational Numbers

Grade 7: **Lesson 15:** Overview: TG pp. 307a–307b Explore: pp. 309–312; Develop: pp. 313–324; Refine: pp. 325–328	**PA.A.3.2** Justify steps in generating equivalent expressions by combining like terms and using order of operations (to include grouping symbols). Identify the properties used, including the properties of operations (associative, commutative, and distributive). *This standard is met in Grade 7:* **Lesson 15:** Write Equivalent Expressions Involving Rational Numbers
Grade 8: **Lesson 10:** Overview: TG pp. 225a–225b Explore: pp. 227–230; Develop: pp. 231–242; Refine: pp. 243–246 **Lesson 11:** Overview: TG pp. 247a–247b Explore: pp. 249–252; Develop: pp. 253–264; Refine: pp. 265–268	**PA.A.4.1** Solve mathematical problems using linear equations with one variable where there could be one, infinitely many, or no solutions. Represent situations using linear equations and interpret solutions in the original context. **Lesson 10:** Solve Linear Equations in One Variable **Lesson 11:** Determine the Number of Solutions to One-Variable Equations
Grade 7: **Lesson 19:** Overview: TG pp. 375a–375b Explore: pp. 377–380; Develop: pp. 381–398; Refine: pp. 399–402	**PA.A.4.2** Represent, write, solve, and graph problems leading to linear inequalities with one variable in the form $px + q > r$ and $px + q < r$, where *p*, *q*, and *r* are rational numbers. *This standard is met in Grade 7:* **Lesson 19:** Write and Solve Inequalities
Grade 7: **Lesson 17:** Overview: TG pp. 341a–341b Explore: pp. 343–346; Develop: pp. 347–350; Refine: pp. 351–352 **Lesson 18:** Overview: TG pp. 353a–353b Explore: pp. 355–358; Develop: pp. 359–370; Refine: pp. 371–374 **Lesson 19:** Overview: TG pp. 375a–375b Explore: pp. 377–380; Develop: pp. 381–398; Refine: pp. 399–402	**PA.A.4.3** Represent real-world situations using equations and inequalities involving one variable. *This standard is met in Grade 7:* **Lesson 17:** Understand Multi-Step Equations **Lesson 18:** Write and Solve Multi-Step Equations **Lesson 19:** Write and Solve Inequalities
Grade 8: **Lesson 26:** Overview: TG pp. 617a–617b Explore: pp. 619–622; Develop: pp. 623–626; Refine: pp. 627–628	**PA.GM.1.1** Justify the Pythagorean theorem using measurements, diagrams, or dynamic software to solve problems in two dimensions involving right triangles. **Lesson 26:** Understand the Pythagorean Theorem and Its Converse

Grade 8: **Lesson 27:** Overview: TG pp. 629a–629b Explore: pp. 631–634; Develop: pp. 635–652; Refine: pp. 653–656	**PA.GM.1.2** Use the Pythagorean theorem to find the distance between any two points in a coordinate plane. **Lesson 27:** Apply the Pythagorean Theorem
Grade 6: **Lesson 3:** Overview: TG pp. 41a–41b Explore: pp. 43–46; Develop: pp. 47–58; Refine: pp. 59–62 *Grade 7:* **Lesson 25:** Overview: TG pp. 541a–541b Explore: pp. 543–546; Develop: pp. 547–564; Refine: pp. 565–568	**PA.GM.2.1** Calculate the surface area of a rectangular prism using decomposition or nets. Use appropriate units (e.g., cm^2). *This standard is met through lessons across several texts.* *Grade 6:* **Lesson 3:** Use Nets to Find Surface Area *Grade 7:* **Lesson 25:** Solve Problems Involving Area and Surface Area
Grade 8: **Lesson 28:** Overview: TG pp. 657a–657b Explore: pp. 659–662; Develop: pp. 663–674; Refine: pp. 675–678	**PA.GM.2.2** Calculate the surface area of a cylinder, in terms of pi (π) and using approximations for pi (π), using decomposition or nets. Use appropriate units (e.g., cm^2). *This standard is extended in Grade 8:* **Lesson 28:** Solve Problems with Volumes of Cylinders, Cones, and Spheres
Grade 7: **Lesson 26:** Overview: TG pp. 569a–569b Explore: pp. 571–574; Develop: pp. 575–586; Refine: pp. 587–590	**PA.GM.2.3** Justify why base area (B) and height (h) in the formula $V = Bh$ are multiplied to find the volume of a rectangular prism. Use appropriate units (e.g., cm^3). *This standard is met in Grade 7:* **Lesson 26:** Solve Problems Involving Volume
Grade 8: **Lesson 28:** Overview: TG pp. 657a–657b Explore: pp. 659–662; Develop: pp. 663–674; Refine: pp. 675–678	**PA.GM.2.4** Develop and use the formulas $V = \pi r^2 h$ and $V = Bh$ to determine the volume of right cylinders, in terms of π and using approximations for pi (π). Justify why base area (B) and height (h) are multiplied to find the volume of a right cylinder. Use appropriate units (e.g., cm^3). **Lesson 28:** Solve Problems with Volumes of Cylinders, Cones, and Spheres

Grade 8: **Lesson 29:** Overview: TG pp. 695a–695b Explore: pp. 697–700; Develop: pp. 701–718; Refine: pp. 719–722	**PA.D.1.1** Describe the impact that inserting or deleting a data point has on the mean and the median of a data set. Create data displays using technology to examine this impact. **Lesson 29:** Analyze Scatter Plots and Fit a Linear Model to Data
Grade 8: **Lesson 29:** Overview: TG pp. 695a–695b Explore: pp. 697–700; Develop: pp. 701–718; Refine: pp. 719–722	**PA.D.1.2** Explain how outliers affect measures of center and spread. **Lesson 29:** Analyze Scatter Plots and Fit a Linear Model to Data
Grade 8: **Lesson 29:** Overview: TG pp. 695a–695b Explore: pp. 697–700; Develop: pp. 701–718; Refine: pp. 719–722 **Lesson 30:** Overview: TG pp. 723a–723b Explore: pp. 725–728; Develop: pp. 729–740; Refine: pp. 741–744	**PA.D.1.3** Collect, display, and interpret data using scatter plots. Use the shape of the scatter plot to find the informal line of best fit, make statements about the average rate of change, and make predictions about values not in the original data set. Use appropriate titles, labels, and units. **Lesson 29:** Analyze Scatter Plots and Fit a Linear Model to Data **Lesson 30:** Write and Analyze an Equation for Fitting a Linear Model to Data
Grade 8: **Lesson 31:** Overview: TG pp. 745a–745b Explore: pp. 747–750; Develop: pp. 751–754; Refine: pp. 755–756 **Lesson 32:** Overview: TG pp. 757a–757b Explore: pp. 759–762; Develop: pp. 763–774; Refine: pp. 775–778	**PA.D.2.1** Calculate experimental probabilities and represent them as percents, fractions, and decimals between 0 and 1. Use experimental probabilities to predict relative frequencies when actual probabilities are unknown. **Lesson 31:** Understand Two-Way Tables **Lesson 32:** Construct and Interpret Two-Way Tables
Grade 7: **Lesson 22:** Overview: TG pp. 469a–469b Explore: pp. 471–474; Develop: pp. 475–478; Refine: pp. 479–480 **Lesson 23:** Overview: TG pp. 481a–481b Explore: pp. 483–486; Develop: pp. 487–498; Refine: pp. 499–502	**PA.D.2.2** Determine how samples are chosen (randomness) to draw and support conclusions about generalizing a sample to a population, including identifying limitations and biases. *This standard is met in Grade 7:* **Lesson 22:** Understand Random Sampling **Lesson 23:** Reason About Random Samples

Grade 7: **Lesson 31:** Overview: TG pp. 685a–685b Explore: pp. 687–690; Develop: pp. 691–702; Refine: pp. 703–706 **Lesson 32:** Overview: TG pp. 707a–707b Explore: pp. 709–712; Develop: pp. 713–724; Refine: pp. 725–728 **Lesson 33:** Overview: TG pp. 729a–729b Explore: pp. 731–734; Develop: pp. 735–752; Refine: pp. 753–756	**PA.D.2.3** Define, compare, and contrast the probabilities of dependent and independent events. *This standard is met in Grade 7:* **Lesson 31:** Solve Problems Involving Experimental Probability **Lesson 32:** Solve Problems Involving Probability Models **Lesson 33:** Solve Problems Involving Compound Events