

Oklahoma PASS Standards

Correlated to Academic Language Notebook

Grade 4

Oklahoma Standards	Academic Language Notebook
Standard 1: Patterns and Algebraic Reasoning - The student will use a variety of problem-solving approaches to analyze, extend and create patterns.	
1. Discover, describe, extend, and create a wide variety of patterns using tables, graphs, rules, and models (e.g., use 1-inch tiles to demonstrate that doubling the length of the side of a square more than doubles the area, explore the characteristics of odd and even numbers, extend patterns of geometric shapes).	Unit 5 Module 15 pp 114-121
2. Elementary Function Concepts	Unit 5 Module 15 pp 114-121
a. Use a variety of techniques to generalize number patterns (e.g., use function machines and “t-tables” to demonstrate "What is the rule?").	Unit 5 Module 15 pp 114-121
b. Solve simple open sentences involving operations on whole numbers (with a variable, e.g., $a + 17 = 23$).	Unit 5 Modules 13 & 14 pp 98-113
Standard 2: Number Sense - The student will use numbers and number relationships to acquire basic number facts.	
1. Place Value	Unit 1 Modules 1-3 pp 2-25
a. Apply the concept of place value through 6 digits (e.g., write numbers in expanded form, play a trading game involving place value).	Unit 1 Modules 1 & 2 pp 2-17
b. Read, write and rename whole numbers through 6 digits and decimal numbers to the hundredths (e.g., money, numerals to words).	Unit 1 Modules 1-3 pp 2-25 Unit 10 Module 30 pp 234-241
2. Compare and order whole numbers and decimals to the hundredths place (e.g., pictures of shaded regions of two-dimensional figures, use $>$, $<$, $=$ symbols).	Unit 10 Module 30 pp 234-241
3. Fractions	Unit 9 Modules 26-29 pp 202-233
a. Use 0, $\frac{1}{2}$, and 1 or 0, 0.5, and 1, as benchmarks and place additional fractions and decimals on a number line (e.g., $\frac{1}{3}$, $\frac{2}{3}$, 0.7, 0.4).	Unit 9 Modules 26 & 27 pp 202-217
b. Create physical and pictorial models of equivalent and nonequivalent fractional parts to be compared, added or subtracted (e.g., egg cartons, fraction strips, circles, and squares).	Unit 9 Module 27 pp 210-217

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Standard 3: Number Operations and Computation - The student will estimate and compute with whole numbers.	
1. Estimate and find the product of 2- and 3-digit numbers to solve application problems.	Unit 2 Module 5 & 6 pp 34-49
2. Division Concepts	Unit 3 Modules 7-9 pp 50-73 Unit 4 Module 10-12 pp 74-97
a. Demonstrate fluency with basic division facts and fact families (i.e., memorize and apply division facts).	Unit 3 Modules 7-9 pp 50-73
*b. Develop division algorithms (e.g., use physical materials to show 12 objects arranged in 3 groups, show division as repeated subtraction and as the inverse of multiplication).	Unit 3 Modules 7-9 pp 50-73
c. Estimate and find the quotient (with and without remainders) with a 1-digit divisor and a 2- or 3-digit dividend to solve application problems.	Unit 4 Module 11 pp 82-89
3. Apply a variety of estimation and mental math techniques to simplify computations (e.g., use rounding to estimate $82 - 58$ is about $80 - 60$ or 20, use $30 \cdot 5$ to find the product of $300 \cdot 5$).	Unit 4 Module 12 pp 90-97
*4. Develop operation sense by applying the associative property of multiplication (e.g., $6 \cdot (2 \cdot 3) = (6 \cdot 2) \cdot 3$).	
Standard 4: Geometry and Measurement - The student will use geometric properties and relationships to analyze shapes and use standard units of customary and metric measurements to solve problems.	
1. Basic Characteristics of Lines and Angles	Unit 8 Module 21 pp 162-169
a. Identify, draw, and construct models of intersecting, parallel, and perpendicular lines (e.g., use spaghetti, straws, toothpicks).	Unit 8 Module 21 pp 162-169
b. Identify and compare angles equal to, less than, or greater than 90 degrees (e.g., use right angles to determine the approximate size of other angles; make a variety of angles using flexible straws and compare).	Unit 8 Module 21 pp 162-169
*2. Identify basic characteristics of the rectangular coordinate system and find the distance between horizontal and vertical lines of a rectangular coordinate system (e.g., the x-axis is the horizontal axis).	
3. Spatial Reasoning	Unit 8 Module 23 pp 178-185
a. Describe the effects on two- and three-dimensional objects when they slide (translate), flip (reflect), and turn (rotate) (e.g., tessellations).	Unit 8 Module 23 pp 178-185
b. Predict and verify the effects of combining, subdividing, and changing two- and three-dimensional figures (e.g., folding paper, tiling, and rearranging pieces of solids).	Unit 8 Module 23 pp 178-185

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4. Measurement	Unit 6 Modules 16-18 pp 122-145
a. Establish benchmarks for customary and metric units and estimate the measures of a variety of objects and compare units (e.g., mass: the mass of a raisin is about 1 gram, length: the width of a finger is about 1 centimeter).	
b. Select appropriate customary and metric units of measure to solve application problems involving length	Unit 6 Modules 17 & 18 pp 130-145
c. Solve application problems involving money	Unit 1 Module 4 pp 26-33
Standard 5: Data Analysis and Probability - The student will demonstrate an understanding of data collection, display and interpretation.	
1. Data Analysis	Unit 7 Modules 19 & 20 pp 146-161
a. Examine data displays such as tallies, tables, charts and graphs and use the observations to pose and answer questions (e.g., choose a table in social studies of population data and write problems).	Unit 7 Modules 19 & 20 pp 146-161
b. Collect, organize and record data in tables and graphs (e.g., bar, pictograph, line plots).	Unit 7 Module 19 pp 146-153
*2. Investigate and record probabilities by experimenting with devices that generate random outcomes (e.g., coins, number cubes, spinners).	

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