



Arkansas Mathematics Frameworks

Matched to

SkillsTutor & CornerStone Math Level C

Grades 7th – 8th

STRAND: NUMBER SENSE, PROPERTIES, AND OPERATIONS

CONTENT STANDARD 1

The student will communicate an understanding of the properties of numbers and operations (add, subtract, multiply, divide).

NPO.1.1. Identify numerical patterns (e.g., prime numbers, squares, exponents) and verify results (e.g., by continuing the pattern).

Using Decimals:

Using Decimals: Lesson 6: Number Sequences

NPO.1.2. Expand number sense through the use of mental computation, calculators/technology, and written and verbal communication.(e.g., powers of ten, factoring, greatest common factors, least common Multiples.)

Understanding Numbers:

Understanding Numbers: Lesson 1: Place Value & Scientific Notation

Understanding Numbers: Lesson 2: Word Names & Scientific Notation

Understanding Numbers: Lesson 3: Comparing & Ordering Numbers

Using Fractions and Percents:

Using Fractions and Percents: Lesson 1: Equivalent Forms

NPO.1.3. Represent numbers and operations in a variety of equivalent forms (including models, tree diagrams, and symbols).

Using Fractions and Percents:

Using Fractions and Percents: Lesson 1: Equivalent Forms

NPO.1.4. Consistently demonstrate competence with rational number computation (add, subtract, multiply, divide) with and without manipulatives and technology.

Using Decimals:

Using Decimals: Lesson 1: Addition of Decimals

Using Decimals: Lesson 2: Subtraction of Decimals

Using Decimals: Problem Solving: Lesson 3: The Gift of Song

Using Decimals: Lesson 4: Multiplication of Decimals

Using Decimals: Lesson 5: Division of Decimals
Using Decimals: Problem Solving: Lesson 7: Pedal Power

Using Fractions and Percents:

Using Fractions and Percents: Lesson 2: Addition of Fractions
Using Fractions and Percents: Lesson 3: Subtraction of Fractions
Using Fractions and Percents: Problem Solving: Lesson 4: Pass the Popcorn
Using Fractions and Percents: Lesson 5: Multiplication of Fractions
Using Fractions and Percents: Lesson 6: Division of Fractions
Using Fractions and Percents: Problem Solving: Lesson 7: Rolling In Dough

CONTENT STANDARD 2

The student will demonstrate and apply knowledge of numbers and numerical relationships to real-world situations.

NPO.2.2. Develop strategies for comparing quantities using ratios and proportions (e.g., fractions, rates, unit rates, percents, scales) with use of manipulatives and technology.

Understanding Numbers:

Understanding Numbers: Lesson 3: Comparing & Ordering Numbers

NPO.2.3. Determine the most appropriate notational representation of a number for the given problem (for example fractions vs. decimals, scientific notation).

Understanding Numbers:

Understanding Numbers: Lesson 1: Place Value & Scientific Notation
Understanding Numbers: Lesson 2: Word Names & Scientific Notation
Understanding Numbers: Lesson 3: Comparing & Ordering Numbers

STRAND: DATA ANALYSIS, STATISTICS AND PROBABILITY

CONTENT STANDARD 1

The student will perform the steps that comprise data analysis, from gathering information to communicating results.

DSP.1.1. Actively and systematically collect, organize and describe data using technology when appropriate.

Working with Data:

Working with Data: Lesson 1: Bar Graphs
Working with Data: Lesson 2: Line Graphs
Working with Data: Lesson 3: Circle Graphs

DSP.1.2. Construct, read and interpret tables, charts and graphs (including stem-and-leaf, histogram, bar graph, pie graph, box and whiskers, line graph, scatter plots) with and without technology.

Working with Data:

Working with Data: Lesson 1: Bar Graphs

Working with Data: Lesson 2: Line Graphs

Working with Data: Lesson 3: Circle Graphs

STRAND 5: PATTERNS, ALGEBRA AND FUNCTIONS**CONTENT STANDARD 1**

The student will use the language/symbols of algebra to represent patterns and functions.

PAF.1.4. Summarize and pose problems/situations relating to the algebraic relationships, patterns, and functions discovered through explorations.

Word Problems**Using Decimals:**

Using Decimals: Problem Solving: Lesson 3: The Gift of Song

Using Decimals: Problem Solving: Lesson 7: Pedal Power

Using Fractions and Percents:

Using Fractions and Percents: Problem Solving: Lesson 4: Pass the Popcorn

Using Fractions and Percents: Problem Solving: Lesson 7: Rolling In Dough

Using Fractions and Percents: Problem Solving: Lesson 12: Kick Up Your Heels

Content Standard 2

The student will use algebraic concepts to model, to solve, and to test solutions of mathematical and real-world problems.

PAF.2.1. Conduct informal investigations (with technology) for analyzing, representing, interpreting, and generalizing functional relationships (e.g., distance and time) to develop explanations or predictions about outcomes of actual situations.

Word Problems**Using Decimals:**

Using Decimals: Problem Solving: Lesson 3: The Gift of Song

Using Decimals: Problem Solving: Lesson 7: Pedal Power

Using Fractions and Percents:

Using Fractions and Percents: Problem Solving: Lesson 4: Pass the Popcorn

Using Fractions and Percents: Problem Solving: Lesson 7: Rolling In Dough

Using Fractions and Percents: Problem Solving: Lesson 12: Kick Up Your Heels

PAF.2.2. Identify variables and relationships and translate them into mathematical statements or other mathematics representations to construct a model (e.g., converting from graphs, tables, words, and expressions).

Word Problems**Using Decimals:**

Using Decimals: Problem Solving: Lesson 3: The Gift of Song

Using Decimals: Problem Solving: Lesson 7: Pedal Power

Using Fractions and Percents:

Using Fractions and Percents: Problem Solving: Lesson 4: Pass the Popcorn

Using Fractions and Percents: Problem Solving: Lesson 7: Rolling In Dough

Using Fractions and Percents: Problem Solving: Lesson 12: Kick Up Your Heels

PAF.2.3. Write and solve equations and inequalities (using manipulatives and technology).**Word Problems****Using Decimals:**

Using Decimals: Problem Solving: Lesson 3: The Gift of Song

Using Decimals: Problem Solving: Lesson 7: Pedal Power

Using Fractions and Percents:

Using Fractions and Percents: Problem Solving: Lesson 4: Pass the Popcorn

Using Fractions and Percents: Problem Solving: Lesson 7: Rolling In Dough

Using Fractions and Percents: Problem Solving: Lesson 12: Kick Up Your Heels