

A Correlation of

**SCOTT FORESMAN ■ ADDISON WESLEY**

**Mathematics**

to the

**Arkansas  
Mathematics  
Curriculum Framework  
Grades K-6**



C/M-93

## Introduction

This document demonstrates the high degree of success students will achieve when using **Scott Foresman – Addison Wesley Mathematics** in meeting the objectives of the Arkansas Mathematics Curriculum Framework. Correlation page references are to the Teacher Edition, which contains facsimile Student Edition pages.

**Scott Foresman – Addison Wesley Mathematics** was carefully developed to reflect the specific needs of students and teachers at every grade level, while maintaining an overall primary goal: to have math make sense from every perspective. This program is based on scientific research that describes how children learn mathematics well and on classroom-based evidence that validates proven reliability.

### ● Reaching All Learners

**Scott Foresman – Addison Wesley Mathematics** addresses the needs of every student through structured instruction that makes concepts easier for students to grasp. Lessons provide step-by-step examples that show students how to think about and solve the problem. Built-in leveled practice in every lesson allows the teacher to customize instruction to match students' abilities. Reaching All Learners, featured in the Teacher Edition, helps teachers meet the diverse needs of the classroom with fun and stimulating activities that are easy to incorporate directly into the lesson plan.

### ● Test Prep

**Scott Foresman - Addison Wesley Mathematics** builds understanding through connections to prior knowledge, math strands, other subjects and the real world. It provides practice for maximum results and offers assessment in a variety of ways. Besides carefully placed reviews at the end of each Section, an important Test Prep strand runs throughout the program. Writing exercises prepare students for open-ended and short-or extended-response questions on state and national tests. Spiral review in a test format help students keep their test-taking skills sharp.

### ● Priority on problem solving:

Problem-solving instruction is systematic and explicit. Reading connections help children with problem-solving skills and strategies for math. Reading for Math Success encourages students to use the reading skills and strategies they already know to solve math problems.

### ● Instructional Support

In the Teacher Edition, the Lesson Planner provides an easy, at-a-glance planning tool. It identifies objectives, math understandings, focus questions, vocabulary, and resources for each lesson in the chapter. Professional Development at the beginning of each chapter in the Teacher Edition includes a Skills Trace as well as Math Background and Teaching Tips for each section in the chapter.

Ancillaries help to reach all learners with practice, problem solving, hands-on math, language support, assessment and teacher support. Technology resources for both the student and the teacher provide a whole new dimension to math instruction by helping to create motivating and engaging lessons.

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**Scott Foresman Addison – Wesley Mathematics  
to the  
Arkansas Mathematics Curriculum Framework  
Kindergarten**

**Strand: Number and Operations**

**Standard 1 Number Sense:**

**Students shall understand numbers, ways of representing numbers, relationships among numbers and number systems**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Whole Numbers</b>	
<b>NO.1.K.1 Count with understanding, explaining that each object should be counted only once and that placement of objects does not change the total amount</b>	53A-53B, 53-54, 57A-57B, 57-58, 75I, 77A-77B, 77-78, 79A-79B, 79-80, 83A-83B, 83-84, 103A-103B, 103-104, 115A-115B, 115-116, 291A-291B, 291-292
<b>NO.1.K.2 Group physical objects to represent a whole number less than 10 in at least two ways using composition and decomposition Composition: A group of 5 cubes can be made by combining 2 red and 3 blue or 4 red and 1 blue Decomposition: 5 cubes can be separated into 2 red and 3 green or 1 red and 4 green</b>	53A, 57A-57B, 57, 223I-223L, 225A-225B, 225-226, 227A-227B, 227-228, 229A-229B, 229-230, 231A-231B, 231-232, 233A-233B, 233-234
<b>NO.1.K.3 Connect various physical models and representations to the quantities they represent using number names, numerals and number words up to 10 with and without appropriate technology</b>	55A-55B, 55-56, 59A-59B, 59-60, 61A-61B, 61-62, 81A-81B, 81-82, 85A-85B, 85-86

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>NO.1.K.4 Represent numbers to 10 in various forms</b> <b>Ex. 1 rod, 1 bundle of 10, tally marks, 10 units</b>	55A-55B, 55-56, 59A-59B, 59-60, 61A-61B, 61-62, 75I, 81A-81B, 81-82, 85A-85B, 85-86
<b>NO.1.K.5 Recognize the number or quantity in sets up to 5 without counting, regardless of arrangement</b>	51K-51L, 55A-55B, 55-56, 59A-59B, 59-60, 61A-61B, 61-62
<b>NO.1.K.6 Estimate quantities fewer than or equal to 10 and judge the reasonableness of the Estimate</b>	119A-119B, 119-120
<b>NO.1.K.7 Orally determine relative position using ordinal numbers (first through tenth)</b>	69A-69B, 69-70, 93A-93B, 93-94
<b>NO.1.K.8 Compare 2 numbers, with less than 6 in each set, using objects and pictures, with and without appropriate technology</b> <b>Ex.</b> <b>A: (XXX)</b> <b>B: (□ □)</b> <b>Set A has more elements than set B</b>	63A-63B, 63-64, 87A-87B, 87-88, 89A-89B, 89-90, 92
<b>NO.1.K.9 Compare and order numbers less than twenty using terms more than, same amount as, less than</b>	63A-63B, 63-64, 87A-87B, 87-88, 87A-87B, 87-88, 91A-91B, 91-92, 121A-121B, 121-122
<b>Rational Numbers</b>	
<b>NO.1.K.10 Consecutively order sets of physical objects from 1 to 10</b>	87A-87B, 87-88
<b>NO.1.K.11 Use physical models and drawings to represent commonly used fractions such as halves, thirds and fourths in relation to the whole</b>	213A-213B, 213-214, 215A-215B, 215-216, 217A-217B, 217-218

## Standard 2: Properties of Number Operations

Students shall understand meanings of operations and how they relate to one another

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Number Theory</b>	
<p><b>NO.2.K.1 Count on (forward) and count back (backward) using physical models or a number line starting at any whole number between zero and twenty</b>  <b>Ex. Start at six and count forward to ten. Start at eight and count backward to five.</b></p>	66, 75-76, 81B, 91A-91B, 91-92
<b>Whole Number Operations</b>	
<p><b>NO.2.K.2 Use physical and pictorial models to demonstrate various meanings of addition and subtraction</b>  <b>See Appendix for examples.</b></p>	243K-243L, 243-244, 245A-245B, 245-246, 247A-247B, 247-248, 249A-249B, 249-250, 251A-251B, 251-252, 253A-253B, 253-254, 255A-255B, 255-256, 257A-257B, 257-258, 263I-263L, 263-264, 265A-265B, 265-266, 267A-267B, 267-268, 271A-271B, 271-272, 275A-275B, 275-276, 277A-277B, 277-278,
<p><b>NO.2.K.3 Demonstrate the relationship between addition and subtraction with informal language and models in contextual situations involving whole numbers</b></p>	279A-279B, 279-280
<p><b>NO.2.K.4 Partition or share a small set of objects into groups of equal size e.g., sharing 6 pencils equally among 3 children</b></p>	217A-217B, 217-218

### Standard 3: Numerical Operations and Estimation

Students shall compute fluently and make reasonable estimates

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Computational Fluency-Addition and Subtraction</b>	
<b>NO.3.K.1 Develop strategies for basic addition facts</b> <ul style="list-style-type: none"> <li>• counting all</li> <li>• counting on</li> <li>• one more, two more</li> </ul>	225A-225B, 225-226, 227A-227B, 227-228, 229A-229B, 229-230, 231A-231B, 231-232, 233A-233B, 233-234, 235A-235B, 235-236, 237A-237B, 237-238, 235A-2235B, 235-236, 237A-237B, 237-238, 243I-243L, 243-244, 245A-245B, 245-246, 247A-247B, 247-248, 249A-249B, 249-250, 251A-251B, 251-252, 253A-253B, 253-254, 255A-255B, 255-256, 257A-257B, 257-258
<b>NO.3.K.2 Develop strategies for basic subtraction facts</b> <ul style="list-style-type: none"> <li>• counting back</li> <li>• one less, two less</li> </ul>	263I-263L, 263-264, 265A-265B, 265-266, 267A-267B, 267-268, 269A-269B, 269-270, 271A-271B, 271-272, 273A-273B, 273-274, 275A-275B, 275-276, 277A-277B, 277-278
<b>Application of Computation</b>	
<b>NO.3.K.3 Solve problems by using a variety of methods and tools (e.g., objects, and/or illustrations, with and without appropriate technology and mental computations)</b>	19A-19B, 19-20, 43A-43B, 43-44, 67A-67B, 67-68, 95A-95B, 95-96, 125A-125B, 125-128, 143A-143B, 143-144, 185A-185B, 185-186, 217A-217B, 217-218, 233A-233B, 233-234, 249A-249B, 249-250, 297A-297B, 297-298

**Strand: Algebra**

**Standard 4: Patterns, Relations and Functions**

**Students shall recognize, describe and develop patterns, relations and functions**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Sort and Classify</b>	
<b>A.4.K.1 Identify how objects are alike or different</b>	1I,1N, 11A-11B, 11-12
<b>A.4.K.2 Sort objects into groups in one or more ways and identify which attribute was used to sort</b>	1I-1L, 1N, 1P, 1, 13A-13B, 13-14, 15A-15B, 15-16, 17A-17B, 17-18, 19A-19B, 19-20
<b>Recognize, describe and develop patterns</b>	
<b>A.4.K.3 Identify patterns in the environment</b>	25L, 35B, 35-36, 37B, 40, 43B, 43-44
<b>A.4.K.4 Use patterns to rote count up to 100 and count backward from 20 to 0</b>	113A-113B, 113-114, 295A-295B, 295-296
<b>A.4.K.5 Identify, describe and extend skip-counting patterns by 5s and 10s</b>	113A-113B, 113-114, 295A-295B, 295-296
<b>A.4.K.6 Duplicate, extend, create and describe repeating patterns using a wide variety of materials</b>	25J, 25L, 35A-35B, 35-36, 37A-37B, 37-38, 39A-39B, 39-40, 41A-41B, 41-42, 43A-43B, 43-44, 45A-45B, 45-46, 48, 113A-113B, 113-114, 295A-295B, 295-296



## Standard 5: Algebraic Representations

Students shall represent and analyze mathematical situations and structures using algebraic symbols

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Expressions, Equations and Inequalities</b>	
<b>A.5.K.1 Use drawings and labels to record solutions of addition and subtraction problems with answers less than or equal to 10</b>	245A-245B, 245-246, 247A-247B, 247-248, 249A-249B, 249-250, 251A-251B, 251-252, 253A-253B, 253-254, 255A-255B, 255-256, 257A-257B, 257-258, 265A-265B, 265-266, 267A-267B, 267-268, 271A-271B, 271-272, 273A-273B, 273-274, 275A-275B, 275-276, 277A-277B, 277-278
<b>A.5.K.2 Identify, create, compare and describe sets of objects as more, less or equal</b>	25I, 25K, 27A-27B, 27-28, 87A-87B, 87-88, 121A-121B, 121-122, 269A-269B, 269-270

## Standard 7: Analysis of Change

Students shall analyze change in various contexts

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Analyze Change</b>	
<b>A.7.K.1 Recognize qualitative change Ex. changes in seasons, temperature, height, etc “Today is colder/warmer than yesterday”</b>	165A-165B, 165-166

**Strand: Geometry**

**Standard 8: Geometric Properties**

**Students shall analyze characteristics and properties of 2 and 3 dimensional geometric shapes and develop mathematical arguments about geometric relationships**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Characteristics and Properties- Three Dimensional</b>	
<b>G.8.K.1 Sort and describe 3-D solids (sphere, cube, cone, and cylinder) by investigating their physical characteristics</b>	195K-195N,195, 197A-197B, 197-198, 199A-199B, 199-200
<b>G.8.K.2 Locate the presence of two-dimensional figures within three-dimensional objects in the environment</b>	195K-195N, 201A-201B, 201-202
<b>Characteristics and Properties- Two Dimensional</b>	
<b>G.8.K.3 Sort, describe and make geometric figures (triangle, rectangle [including square] and circle) by investigating their physical characteristics independent of position or size</b>	195, 203A-203B, 203-204, 205A-205B, 205-206

### Standard 9: Transformation of Shapes

Students shall apply transformations and the use of symmetry to analyze mathematical situations

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
Symmetry and Transformations	
<b>G.9.K.1 Identify figures with a line of symmetry as they appear in the environment Ex. Butterfly, leaf</b>	211A-211B, 211-212
<b>G.9.K.2 Explore slides, flips and turns</b>	195J, 207A-207B, 207-208

### Standard 10: Coordinate Geometry

Students shall specify locations and describe spatial relationships using coordinate geometry and other representational systems

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
Coordinate Geometry	
<b>G.10.K.1 Demonstrate and describe the relative position of objects as follows: over, under, inside, outside, on, beside, between, above, below, on top of, upside-down, behind, in back of and in front of</b>	3A-3B, 3-4, 5A-5B, 5-6, 7A-7B, 7-8, 9A-9B, 9-10

## Standard 11: Visualization and Geometric Models

Students shall use visualization, spatial reasoning and geometric modeling

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Spatial Visualization and Models</b>	
<b>G.11.K.1 Arrange physical materials (toothpicks, pretzel sticks, modeling clay, etc...) to form two-dimensional figures</b>	195, 203A-203B, 203-204, 205A-205B, 205-206

## Strand: Measurement

### Standard 12: Physical Attributes

Students shall use attributes of measurement to describe and compare mathematical and real-world objects

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Time: Calendar</b>	
<b>M.12.K.1 Recognize that a calendar is used to measure time and use it to identify units of time (day, week, month, season, year) and compare them</b>	123A-123B, 123-124, 167A-167B, 167-168
<b>M.12.K.2 Orally sequence and count the days of the week</b>	159I, 161A-161B, 161-162, 167A-167B, 167-168
<b>Time: Clock</b>	
<b>M.12.K.3 Recognize that a clock is used to tell time</b>	159J, 173A-173B, 173-174, 175A-175B, 175-176
<b>Money</b>	
<b>M.12.K.4 Recognize and identify attributes of penny, nickel, dime, and quarter</b>	179A-179B, 179-180, 181A-181B, 181-182, 183A-183B, 183-184, 187A-187B, 187-188
<b>M.12.K.5 State the values of coins (penny, nickel, dime)</b>	159L, 179A-179B, 179-180, 181A-181B, 181-182, 183A-183B, 183-184, 185A-185B, 185-186, 187A-187B, 187-188, 189A-189B, 189-200

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Temperature</b>	
<b>M.12.K.6 Differentiate and make connections between hot and cold temperatures</b> <b>Ex. What else is as cold as ice cream?</b> <b>If it is cold outside, what type of clothing will you wear?</b>	153A-153B, 153-154
<b>Tools and Attributes</b>	
<b>M.12.K.7 Explore the attributes of length, weight, capacity, and mass using relative terms (longer, shorter, bigger, smaller, heavier, lighter, more and less)</b> <b>Ex. How many cheerios/marbles will a container hold? Which is longer, a pencil or paper clip?</b>	131I-131N, 131, 133A-133B, 133-134, 135A-135B, 135-136, 137A-137B, 137-138, 145A-145B, 145-146, 149A-149B, 149-150

### **Standard 13: Systems of Measurement**

**Students shall identify and use units, systems and processes of measurement**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Calendar</b>	
<b>M.13.K.1 Recognize that a calendar is used to measure time and use it to identify units of time (day, week, month, season, year) and compare them</b>	123A-123B, 123-124, 161A-161B, 161-162, 163A-163B, 163-164, 165A-165B, 165-166, 167A-167B, 167-168
<b>Clock</b>	
<b>M.13.K.2 Tell time to the hour the nearest hour using analog and digital clock</b>	159J, 173A-173B, 173-174, 175A-175B, 175-176

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Elapsed Time</b>	
<b>M.13.K.3 Order events based on time</b> <b>Ex.</b> <ul style="list-style-type: none"> <li>• <b>Activities that take long or short time</b></li> <li>• <b>Review what we do first, next, last</b></li> <li>• <b>Recall what we did or plan to do yesterday, today, and tomorrow</b></li> </ul>	163A-163B, 163-164, 169A-169B, 169-170, 177A-177B, 177-178
<b>Applications</b>	
<b>M.13.K.4 Name common tools for measurement (balance scale, ruler and thermometer)</b>	148, 150, 151A-151B, 151-152, 153A-153B, 153-154
<b>M.13.K.5 Estimate and measure length, capacity/volume and mass of familiar objects using non-standard units</b>	139A-139B, 139-140, 141A-141B, 141-142, 147A-147B, 147-148, 151A-151B, 151-152
<b>Perimeter</b>	
<b>M.13.K.6 Surround a figure with objects (links, craft sticks, etc) and tell how many it takes to go around (Perimeter answers the question: How many units does it take to travel a path?)</b>	Concept taught in Grade 1 pp: 377A-377B, 377-378
<b>Area</b>	
<b>M.13.K.7 Cover a figure with one type of shape and tell how many it takes to cover (Area answers the questions: How much to cover?)</b>	209A-209B, 209-210

**Strand: Data Analysis and Probability**

**Standard 14: Data Representation**

Students shall formulate questions that can be addressed with data and collect, organize and display relevant data to answer them

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Collect, Organize and display data</b>	
<b>DAP.14.K.1 Explore and discuss data collection by collecting, organizing and displaying physical objects</b>	29A-29B, 29-30, 31A-31B, 31-32, 33A-33B, 33-34

**Standard 15: Data Analysis**

Students shall select and use appropriate statistical methods to analyze data

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Data Analysis</b>	
<b>DAP.15.K.1 Analyze and interpret concrete and pictorial graphs (i.e. bar graphs, pictographs, Venn diagrams, T-chart)</b>	29A-29B, 29-30, 31A-31B, 31-32, 33A-33B, 33-34

**Standard 17: Probability**

Students shall understand and apply basic concepts of probability

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Probability</b>	
<b>DAP.17.K.1 Describe the probability of an event as being possible or not possible Ex. There are only apples in this bag. Could I pull a banana from this bag?</b>	125A-125B, 125-126

**Scott Foresman Addison – Wesley Mathematics  
to the  
Arkansas Mathematics Curriculum Framework  
Grade One**

**Strand: Number and Operations**

**Standard 1 Number Sense:**

**Students shall understand numbers, ways of representing numbers, relationships among numbers and number systems**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Whole Numbers</b>	
<b>NO.1.1.1 Use efficient strategies to count a given set of objects in groups of 10 up to 100</b>	243A-243B, 243-244, 281A-281B, 281-282
<b>NO.1.1.2 Represent a whole number less than 15 in all possible ways using composition and decomposition</b>  <b>Composition: 10 can be made by combining 1 and 9, 2 and 8, 3 and 7, 4 and 6, 5 and 5</b> <b>Decomposition: 10 can be separated into 1 and 9, 2 and 8, 3 and 7, 4 and 6, and 5 and 5</b>	1J, 89J, 3A-3B, 3-4, 5A-5B, 5-6, 7A-7B, 7-8, 9A-9B, 9-12
<b>NO.1.1.3 Connect various physical models and representations to the quantities they represent using number names, numerals and number words to 20 with and without appropriate technology</b>	1J, 89J, 3A-3B, 3-4, 5A-5B, 5-6, 7A-7B, 7-8, 9A-9B, 9-12
<b>NO.1.1.4 Represent numbers to 20 in various forms</b> <b>Ex.</b> <b>2 rods, 2 bundles of 10, tally marks, a rod and 10 units</b>	R1-R8, 1J,3A-3B, 3-4, 5A-5B, 5-6, 7A-7B, 7-8, 9A-9B, 9-12, 89J, 241A-241B, 241-242



Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<p><b>NO.1.1.5 Use multiple models to develop understandings of place value including tens and ones</b>  <b>Ex.</b>  <b>pictures of base 10 blocks to show 23 will be ___tens and ___ones = ___</b>  <input type="checkbox"/> ones  <input type="text"/>  tens</p>	<p>241A-241B, 241-242, 2247A, 283A-283B, 283-284, 285A-285B, 285-286, 287A, 287-288, 303A-303B, 303-304</p>
<p><b>NO.1.1.6 Recognize the number or quantity of sets up to 10 without counting, regardless of arrangement</b></p>	<p>R1-R5, R6-R8, 1J, 3A-3B, 3-4, 5A-5B, 5-6, 7A-7B, 7-8, 9A-9B, 9-12, 89J</p>
<p><b>NO.1.1.7 Estimate the results of whole number addition and subtraction problems and judge the reasonableness</b></p>	<p>62, 474, 467</p>
<p><b>NO.1.1.8 Determine relative position using ordinal numbers (first through twelfth)</b></p>	<p>267A-267B, 267-268</p>
<p><b>NO.1.1.9 Compare 2 numbers, with less than 12 in each set, using objects and pictures with and without appropriate technology</b>  <b>Ex.</b>  <b>A: (XXXXXX)</b>  <b>B: (□ □ □)</b></p>	<p>21A-21B, 21-22, 297A-297B, 297-298</p>
<p><b>NO.1.1.10 Compare 2 numbers, less than 100 using mathematical language of greater than, equal to (same amount as), less than</b></p>	<p>21A-21B, 21-22, 297A-297B, 297-298</p>
<b>Rational Numbers</b>	
<p><b>NO.1.1.11 Communicate the relative position of any number less than 20 (18 is less than 20 and greater than 12)</b></p>	<p>23A-23B, 23-24, 299A-299B, 299-300, 301A-301B, 301-302</p>

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<p><b>NO.1.1.12 Represent commonly used fractions using words and physical models for halves, thirds and fourths</b>  <b>Ex.</b></p> <ul style="list-style-type: none"> <li>• recognize that fractions are represented by equal parts of a whole</li> <li>• identify and illustrate parts of sets of objects</li> </ul>	<p>156, 183A-183B, 183-184, 185A-185B, 185-186, 187A-187B, 187-188</p>

**Standard 2: Properties of Number Operations**

**Students shall understand meanings of operations and how they relate to one another**

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Number Theory</b>	
<p><b>NO.2.1.1 Count on (forward) and back (backward) using physical models or a number line starting at any whole number up to fifty</b></p>	<p>17A-17B, 17-18, 19A-19B, 19-20, 23A-23B, 23-24, 97B, 97-98, 123E, 123K-123L, 124, 125A-125B, 125-126, 127A, 127-128, 152, 466</p>
<p><b>NO.2.1.2 Develop an understanding of the commutative (turn around facts) and identity (+0) properties of addition using objects</b></p>	<p>51A-51B, 51-52, 93A-93B, 93-94</p>

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<p><b>NO.2.1.3 Apply number theory</b></p> <ul style="list-style-type: none"> <li>• determine if a 1- digit number is odd or even</li> <li>• use the terms sum and difference in appropriate context</li> <li>• use conventional symbols (+, -, =) to represent the operations of addition and subtraction</li> </ul>	<p>47-48, 49B, 49-50, 63A, 63-64, 65A, 65-66, 265A-265B, 265-266</p>
<p><b>Whole Number Operations</b></p>	
<p><b>NO.2.1.4 Use physical, pictorial and symbolic models to demonstrate various meanings of addition and subtraction</b> See Appendix for examples.</p>	<p>45A-45B, 45-46, 47A-47B, 47-48, 49A-49B, 49-50, 51A-51B, 51-52, 61A-61B, 61-62, 63A-63B, 63-64, 65A-65B, 65-66, 67A-67B, 67-68, 75A-75B, 75-76, 77A-77B, 77-78, 89E, 89I-89L, 89-90, 91A-91B, 91-92, 93A-93B, 93-94, 95A-95B, 95-96, 97A-97B, 97-98, 103A-103B, 103-104, 105A-105B, 105-106, 107A-107B, 107-110, 111A-111B, 111-112, 113A-113B, 113-114, 123E-123F, 123I-123L, 123-124, 125A-125B, 125-126, 127A-127B, 127-128, 129A-129B, 129-130, 137A-137B, 137-138, 139A-139B, 139-140, 141A-141B, 141-142, 415E, 415I-415J, 415, 417A-417B, 417-418, 419A-419B, 419-420, 421A-421B, 421-422, 423A-423B, 423-424, 425A-425B, 425-426, 427A-427B, 427-428, 435A-435B, 435-436, 437A-437B, 437-438, 439A-439B, 439-440, 441A-441B, 441-442, 443A-443B, 443-444</p>

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>NO.2.1.5 Identify and use relationships between addition and subtraction to solve problems in contextual situations involving whole numbers</b>	71A-71B, 71-72, 139A-139B, 139-140, 143A-143B, 143-144, 437A-437B, 437-438
<b>NO.2.1.6 Model and represent division as sharing equally in contextual situations Ex. Sharing cookies equally among four children</b>	191A-191B, 191-192

### Standard 3: Numerical Operations and Estimation

Students shall compute fluently and make reasonable estimates

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Computational Fluency-Addition and Subtraction</b>	
<b>NO.3.1.1 Develop strategies for basic addition facts</b> <ul style="list-style-type: none"> <li>• counting all</li> <li>• counting on</li> <li>• one more, two more</li> <li>• doubles</li> <li>• doubles plus one or minus one</li> <li>• make ten</li> <li>• using ten frames</li> <li>• Identity Property (adding zero)</li> </ul>	9A-9B, 9-10, 17A-17B, 17-18, 51A-51B, 51-52, 89, 91A-91B, 91-92, 95A-95B, 95-96, 103A-103B, 103-104, 105A-105B, 105-106, 423A-423B, 423-424

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>NO.3.1.2 Develop strategies for basic subtraction facts</b> <ul style="list-style-type: none"> <li>• relating to addition (Ex. Think of <math>7 - 3 = \underline{\quad}</math> as “<math>3 + \underline{\quad} = 7</math>”)</li> <li>• one less, two less</li> <li>• all but one (Ex <math>9 - 8</math>, <math>6 - 5</math>)</li> <li>• using ten frames of the answers</li> </ul>	19A-19B, 19-20123I-123L, 123-124, 125A-125B, 125-126, 127A-127B, 127-128, 129A-129B, 129-130
<b>Application of Computation</b>	
<b>NO.3.1.3 Solve problems by using a variety of methods and tools (e.g., objects, mental computations, paper and pencil and with and without appropriate technology)</b>	13A-13B, 13-14, 57A-57B, 57-58, 111A-111B, 11-112, 133A-133B, 133-134, 177A-177B, 177-178, 215A-215B, 215-216, 261A-261B, 261-262, 291A-291B, 291-292, 351A-351B, 351-352, 369A-369B, 369-370, 431A-431B, 431-432, 481A-481B, 481-482

**Strand: Algebra**

**Standard 4: Patterns, Relations and Functions**

**Students shall recognize, describe and develop patterns, relations and functions**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Sort and Classify</b>	
<b>A.4.1.1 Sort and classify objects by one or two attributes in more than one way</b>	167A-167B, 167-168, 307A-307B, 307-308
<b>Recognize, describe and develop patterns</b>	
<b>A.4.1.2 Identify and describe patterns in the environment</b>	31A-31B, 31-32, 33A-33B, 33-34, 194, 210, 226, 269A-269B, 269-270

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>A.4.1.3 Use patterns to count forward and backward when given a number less than or equal to 50</b>	243A-243B, 243-244, 255A-255B, 255-256, 257A-257B, 257-260, 261A-261B, 261-262, 273-274
<b>A.4.1.4 Identify, describe and extend skip-counting patterns by 2s</b>	256, 257, 274
<b>Recognize, describe and develop patterns</b>	
<b>A.4.1.5 Identify a number that is one more or one less than any whole number less than 100</b>	295A-295B, 295-296
<b>A.4.1.6 Recognize, extend, and create simple repeating and growing patterns using a wide variety of materials and describe them using words, pictures or symbols</b>	R11-R14, 1, 27A-27B, 27-28, 29A-29B, 29-30, 31A-31B, 31-32, 33A-33B, 33-34, 37, 54, 126, 166, 194, 210, 226, 243A-243B, 243-244, 255A-255B, 255-256, 257A-257B, 257-260, 261A-261B, 261-262, 266, 269A-269B, 269-270, 270, 273-274, 302, 422, 462

### Standard 5: Algebraic Representations

Students shall represent and analyze mathematical situations and structures using algebraic symbols

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Expressions, Equations and Inequalities</b>	
<b>A.5.1.1 Select and/or write number sentences to find the unknown in problem- solving contexts involving single-digit addition and subtraction using appropriate labels</b> Ex. Bob had 5 baseball cards. His friend gave him some more. Now he has seven cards. How many cards did his friend give him?	57A-57B, 57-58, 133A-133B, 133-134

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>A.5.1.2 Recognize that “=” indicates a relationship in which the quantities on each side of an equation are equal</b> <b>Ex.</b> $3 + 2 = 4 + 1$	49A-49B, 49-50, 297A-297B, 297-298
<b>A.5.1.3 Recognize that symbols such as <math>\sim</math>, <math>\Delta</math> and <math>\diamond</math> in an addition or subtraction equation, represent a missing value that will make the statement true</b> <b>Ex.</b> $\square + 3 = 6$ $5 + 7 = \Delta$ $4 = 5 - \diamond$	83, 96

### Standard 6: Algebraic Models

Students shall develop and apply mathematical models to represent and understand quantitative relationships

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics												
<b>Algebraic Models and Relationships</b>													
<b>A.6.1.1 Explore the use of a chart or table to organize information and to understand relationships</b>  <table border="1" data-bbox="186 1409 467 1600"> <thead> <tr> <th>People</th> <th>Eyes</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>2</td> </tr> <tr> <td>2</td> <td>4</td> </tr> <tr> <td>3</td> <td>6</td> </tr> <tr> <td>4</td> <td>8</td> </tr> <tr> <td>5</td> <td><math>\square</math></td> </tr> </tbody> </table>	People	Eyes	1	2	2	4	3	6	4	8	5	$\square$	40, 159, 167, 175-176, 177A-177B, 177-178, 191A-191B, 191-192, 223A-223B, 223-224, 259-260, 261A-261B, 261-262, 265A-265B, 265-266, 270, 339A-339B, 339-340, 343A, 425B, 429-430, 431A-431B, 431-432, 451, 465A, 465-466, 477A-477B, 477-480
People	Eyes												
1	2												
2	4												
3	6												
4	8												
5	$\square$												

## Standard 7: Analysis of Change

Students shall analyze change in various contexts

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Analyze Change</b>	
<b>A.7.1.1 Interpret qualitative change</b> Ex. changes in seasons, temperature, height, etc “Today is colder than yesterday, so I need to wear a jacket”	395A-395B, 395-396


## Strand: Geometry

### Standard 8: Geometric Properties

Students shall analyze characteristics and properties of 2 and 3 dimensional geometric shapes and develop mathematical arguments about geometric relationships

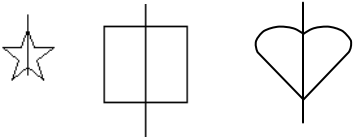
Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Characteristics and Properties- Three Dimensional</b>	
<b>G.8.1.1 Compare 3-D solids (sphere, cube, rectangular prism, cone, and cylinder) by investigating their physical characteristics</b>	155, 157A-157B, 157-158, 159A-159B, 159-160, 161A-161B, 161-162
<b>G.8.1.2 Investigate the presence of three-dimensional objects in the environment</b>	157A-157B, 157-158, 159B, 161B, 162



Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Characteristics and Properties- Two Dimensional</b>	
<p><b>G.8.1.3 Compare and make geometric figures (triangle, rectangle [including square] and circle) by investigating their physical characteristics independent of position or size</b>  <b>Ex.</b></p> 	155I, 155, 165A-165B, 165-166, 167A-167B, 167-168

### Standard 9: Transformation of Shapes

Students shall apply transformations and the use of symmetry to analyze mathematical situations

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Symmetry and Transformations</b>	
<p><b>G.9.1.1 Identify a line or lines of symmetry in two –dimensional figures and justify by folding</b>  <b>Ex.</b></p> 	171A-171B, 171-172
<b>G.9.1.2 Manipulate two-dimensional figures through slides, flips and turns</b>	173A-173B, 173-174

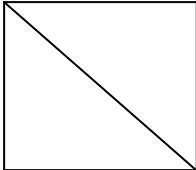
### Standard 10: Coordinate Geometry

Students shall specify locations and describe spatial relationships using coordinate geometry and other representational systems

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
Coordinate Geometry	
G.10.1.1 Extend the use of location words to include distance (near, far, close to) and direction (left and right)	R10

### Standard 11: Visualization and Geometric Models

Students shall use visualization, spatial reasoning and geometric modeling

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
Spatial Visualization and Models	
G.11.1.1 Replicate a simple two-dimensional figure from a briefly displayed example or from a description	165B, 165-166, 168
G.11.1.2 Recognize that new figures can be created by combining and subdividing models of existing figures  Ex. 	177A-177B, 177-178

**Strand: Measurement**

**Standard 12: Physical Attributes**

**Students shall use attributes of measurement to describe and compare mathematical and real-world objects**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Time: Calendar</b>	
<b>M.12.1.1 Recognize the number of days in a week and the number of days in a month using a calendar</b>	225A-225B, 225-226
<b>M.12.1.2 Orally sequence the months of the year</b>	227A-227B, 227-228
<b>Time: Clock</b>	
<b>M.12.1.3 Recognize that an hour is longer than a minute and a minute is longer than a second</b>	203I, 205A-205B, 205-206, 207A-207B, 207-208, 213-214, 215A-215B, 215-216
<b>Money</b>	
<b>M.12.1.4 Recognize and identify attributes of penny, nickel, dime, quarter and dollar bill</b>	329, 331A-331B, 331-332, 333A-333B, 333-334, 331A-331B, 331-332, 343A-343B, 343-344, 347A-347B, 347-348
<b>M.12.1.5 State the values of a penny, nickel, dime, and quarter and dollar bill</b>	329, 331A-331B, 331-332, 333A-333B, 333-334, 335A-335B, 335-336, 337A-337B, 337-338, 331A-331B, 331-332, 343A-343B, 343-344, 347A-347B, 347-348
<b>M.12.1.6 Compare the value of coins (pennies, nickels, dimes and quarters)</b>	335A-335B, 335-336, 337A-337B, 337-338, 345A-345B, 345-346
<b>Temperature</b>	
<b>M.12.1.7 Distinguish between hot and cold temperatures on a thermometer Ex. The higher the mercury level the warmer the temperature</b>	395A-395B, 395-396

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
Tools and Attributes	
<b>M.12.1.8 Recognize attributes of measurement (length, weight, capacity and mass) and identify appropriate tools used to measure each attribute</b>	397A-397B, 397-398

### Standard 13: Systems of Measurement

Students shall identify and use units, systems and processes of measurement

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
Calendar	
<b>M.13.1.1 Use a calendar to determine elapsed time involving a time period of one week</b>	225A-225B, 225-226
Clock	
<b>M.13.1.2 Tell time to the half-hour</b>	211A-211B, 211-212
Elapsed Time	
<b>M.13.1.3 Determine elapsed time (to the hour) in contextual situations</b>  <b><u>End time unknown</u></b> Ex. Lunch began at 11:00 and lasted 1 hour. When was lunch over? <b><u>Elapsed hours unknown</u></b> Ex. John went to Tim’s house at 3:00. He left at 5:00. How long did he stay? <b><u>Beginning time unknown</u></b> Ex. Mary watched a movie for 2 hours. The movie ended at 8:00. When did the movie begin?	213-214, 215A-215B, 215-216

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Money</b>	
<b>M.13.1.4</b> Determine the value of a small collection of coins (with a total value up to one dollar) using 1 or 2 different types of coins, including pennies, nickels, dimes and quarters	335A-335B, 335-336, 337A-337B, 337-338, 345A-345B, 345-346
<b>M.13.1.5</b> Represent and write the value of money using the cent sign	331A-331B, 331-332
<b>M.13.1.6</b> Show different combination of coins that have the same value	343A-343B, 343-344, 346, 347-348
<b>Applications</b>	
<b>M.13.1.7</b> Select the appropriate non-standard measurement tools for length, capacity and mass	364, 365A-365B, 365-368, 369A-369B, 369-370, 383A-383B, 389A-389B, 389-390
<b>M.13.1.8</b> Estimate and measure length, capacity/volume and mass with non-standard units	364, 365A-365B, 365-368, 369A-369B, 369-370, 383A-383B, 389A-389B, 389-390
<b>Perimeter</b>	
<b>M.13.1.9</b> Surround a figure with objects and tell how many it takes to go around	377A-377B, 377-378
<b>Area</b>	
<b>M.13.1.10</b> Cover a figure with squares and tell how many it takes	379A-379B, 379-380

**Strand: Data Analysis and Probability**

**Standard 14: Data Representation**

Students shall formulate questions that can be addressed with data and collect, organize and display relevant data to answer them

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Collect, Organize and display data</b>	
<b>DAP.14.1.1 Identify the purpose for data collection and collect, organize and display physical objects for describing the results</b>	309A-309B, 309-310

**Standard 15: Data Analysis**

Students shall select and use appropriate statistical methods to analyze data

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Data Analysis</b>	
<b>DAP.15.1.1 Analyze and interpret concrete and pictorial graphs (i.e. bar graphs, pictographs, Venn diagrams, T-chart)</b>	307B, 309A-309B, 309-310, 311A-311B, 311-312
<b>DAP.15.1.2 Make a true statement about the data displayed on a graph or chart (i.e. 5 people ride the bus)</b>	307B, 309A-309B, 309-310, 311A-311B, 311-312, 313A-313B, 313-314

### Standard 16: Inferences and Predictions

Students shall develop and evaluate inferences and predictions that are based on data

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
Inferences and Predictions	
<b>DAP.16.1.1 Explore making simple predictions for a given set of data</b>	259-260, 310, 312, 313, 403A-403B, 403-404

### Standard 17: Probability

Students shall understand and apply basic concepts of probability

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
Probability	
<b>DAP.17.1.1 Describe the probability of an event as being more, less, or equally likely to occur</b> <b>Ex. There are 10 red cubes and 4 blue cubes in this bag. Which color are you more/less likely to pull from this bag?</b>	403A-403B, 403-404

**Scott Foresman Addison – Wesley Mathematics  
to the  
Arkansas Mathematics Curriculum Framework  
Grade Two**

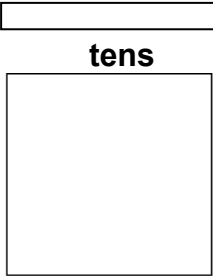
**Strand: Number and Operations**

**Standard 1 Number Sense:**

**Students shall understand numbers, ways of representing numbers, relationships among numbers and number systems**

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Whole Numbers</b>	
<b>NO.1.2.1 Use efficient strategies to count a given set of objects in groups of 2s and 5s to 100 and in groups of 3s to 30</b>	79I, 81A-81B, 81-82, 467A-467B, 467-468
<b>NO.1.2.2 Represent a whole number in multiple ways using composition and decomposition</b> <b>Ex</b> <b>A collection of 80 blocks</b> <b>Composition: 80 can be made by combining: 70 and 10, 60 and 20</b> <b>Decomposition: 80 can be separated into 50 and 30, 40 and 40</b>	25A-25B, 25-26, 89A-89B, 89-90, 159A-159B, 159-160, 401A-401B, 401-402
<b>NO.1.2.3 Connect various physical models and representations to the quantities they represent using number names, numerals and number words to 100 with and without appropriate technology</b>	81A-81B, 81-82, 83A-83B, 83-84, 85A-85B, 85-86
<b>NO.1.2.4 Represent numbers to 100 in various forms</b> <b>Ex.</b> <b>Arrange tally marks, combinations of rods and units</b>	79I, 81A-81B, 81-82, 83A-83B, 83-84, 85A-85B, 85-86



Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<p><b>NO.1.2.5 Use multiple models to represent understanding of place value including hundreds</b>  <b>Ex. 127 is 1 flat and 2 ten rods and 7 units (find pictures) ___hundreds</b>  <b>_____tens _____ones added is <math>100 + 20 + 7</math></b>  <input type="checkbox"/> ones</p>  <p style="text-align: center;">tens</p> <p style="text-align: center;">hundreds</p>	81A-81B, 81-82, 83A-83B, 83-84, 393A-393B, 393-394, 395A-395B, 395-396
<p><b>NO.1.2.6 Determine relative position using ordinal numbers (first through eighteenth)</b></p>	103A-103B, 103-104
<p><b>NO.1.2.7 Compare 2 numbers, less than 100 using numerals and =, &lt;, &gt; with and without appropriate technology</b></p>	91A-91B, 91-92
<p><b>Rational Numbers</b></p>	
<p><b>NO.1.2.8 Communicate the relative position of any number less than 100 (27 is greater than 25 and less than 30)</b></p>	97A-97B, 97-98
<p><b>NO.1.2.9 Represent fractions (halves, thirds, fourths, sixths and eighths) using words, numerals, and physical models</b>  <b>Ex.</b>  <b>Identify and illustrate parts of a whole</b></p>	245F, 245J, 245, 271A-271B, 271-272, 273A-273B, 273-274, 277A-277B, 277-278

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>NO.1.2.10 Utilize models to recognize that a fractional part can mean different amounts depending on the original quantity</b>	245F, 245J, 245, 271A-271B, 271-272, 273A-273B, 273-274

## Standard 2: Properties of Number Operations

Students shall understand meanings of operations and how they relate to one another

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Number Theory</b>	
<b>NO.2.2.1 Count on (forward) and back (backward) on a number line and a 100's chart starting at any whole number up to 100</b>	97A-97B, 97-98, 99A-99B, 99-100, 419
<b>NO.2.2.2 Model and use the commutative property for addition</b> Ex. <b>3 + 2 is the same as (=) 2 + 3</b>	23A-23B, 23-24
<b>NO.2.2.3 Develop an understanding of the associative property of addition using objects</b>	49A-49B, 49-50, 187A-187B, 187-188
<b>NO.2.2.4</b> <b>Apply number theory</b> • determine if a 2-digit number is odd or even • use the terms sum, addends, and difference in an appropriate context (2+3=5, 2 and 3 are addends; 5 is a sum)	5, 17, 43, 45, 101A-101B, 101-102, 175, 211

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Whole Number Operations</b>	
<b>NO.2.2.5 Demonstrate various meaning of addition and subtraction See Appendix for examples.</b>	3A-3B, 3-4, 13A-13B, 13-14, 15A-15B, 15-16
<b>NO.2.2.6 Demonstrate various addition and subtraction relationships (property) to solve problems in contextual situations involving whole numbers</b>	9A-9B, 9-10, 17A-17B, 17-18, 19A-19B, 19-20, 27A-27B, 27-28
<b>NO.2.2.7 Model, represent and explain division as sharing equally and repeated subtraction in contextual situations Ex. Mrs. Lopez bought a dozen pencils for her four children. She gave each child the same number of pencils How many pencils did each child receive?</b>	483A-483B, 483-484, 485A-485B, 485-486

### Standard 3: Numerical Operations and Estimation

Students shall compute fluently and make reasonable estimates

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<p><b>Computational Fluency-Addition and Subtraction</b></p>	
<p><b>NO.3.2.1 Develop strategies for basic addition facts</b></p> <ul style="list-style-type: none"> <li>• counting all</li> <li>• counting on</li> <li>• one more, two more</li> <li>• doubles</li> <li>• doubles plus one or minus one</li> <li>• make ten</li> <li>• using ten frames</li> <li>• Identity Property (adding zero)</li> </ul>	<p>43A-43B, 43-44, 45A-45B, 445-46, 47A-47B, 47-48, 49A-49B, 49-50, 51A-51B, 51-52, 53A-53B, 53-54, 61A-61B, 61-62, 63A-63B, 63-64, 65A-65B, 65-66</p>
<p><b>NO.3.2.2 Demonstrate multiple strategies for adding or subtracting 2-digit whole numbers</b></p> <ul style="list-style-type: none"> <li>• Compatible Numbers</li> <li>• compensatory numbers</li> <li>• informal use of commutative and associative properties of addition</li> </ul>	<p>139A-139B, 139-140, 175A-175B, 175-176</p>
<p><b>NO.3.2.3 Demonstrate computational fluency (accuracy, efficiency and flexibility) in addition facts with addends through 9 and corresponding subtractions</b></p> <p>Ex. (9+9=18, 18-9=9) add and subtract multiples of ten</p>	<p>27A-27B, 27-28, 36, 99A-99B, 99-100</p>

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Application of Computation</b>	
<b>NO.3.2.4 Solve problems using a variety of methods and tools (e.g., objects, mental computation, paper and pencil, and with and without appropriate technology)</b>	26, 36,37, 61B, 61-62, 66, 74, 81A-81B, 81-82, 95B, 95-96, 128, 135B, 135-136, 137-138, 139A-139B, 139-140, 145A-145B, 145-146, 147A-147B, 147-148, 168, 191, 194, 204, 216, 229, 231A-231B, 231-232, 240, 284, 334, 378, 384, 391, 392, 393, 394, 395, 396, 397A-397B, 397-398, 420, 460, 494
<b>Estimation</b>	
<b>NO.3.2.5 Use Estimation strategies to solve addition and subtraction problems and judge the reasonableness of the answer</b>	141A-141B, 141-142, 149A-149B, 149-150, 191A-191B, 191-192, 229A-229B, 229-230, 429A-429B, 429-430, 432, 445A-445B, 445-446, 452

**Strand: Algebra**

**Standard 4: Patterns, Relations and Functions**

**Students shall recognize, describe and develop patterns, relations and functions**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Sort and Classify</b>	
<b>A.4.2.1 Sort, classify, and label objects by three or more attributes in more than one way</b>	311A-311B, 311-312
<b>Recognize, describe and develop patterns</b>	
<b>A.4.2.2 Describe repeating and growing patterns in the environment</b>	413A-413B, 413-414

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>A.4.2.3 Use patterns to count forward and backward when given a number less than or equal to 100 ____, 69, ____, ____</b>	99A-99B, 99-100, 157A-157B, 157-158, 420
<b>A.4.2.4 Identify, describe and extend skip counting patterns from any given number</b>	99A-99B, 99-100, 413A-413B, 413-414
<b>Recognize, describe and develop patterns</b>	
<b>A.4.2.5 Identify a number that is more or less than any whole number less than 100 using multiples of ten Ex. 30 more than 26 is 56</b>	135A-135B, 135-136, 145A-145B, 145-146, 157A, 158, 397A-397B, 397-398
<b>A.4.2.6 Recognize, describe, extend, and create repeating and growing patterns using a wide variety of materials to solve problems</b>	99A-99B, 99-100, 157A-157B, 157-158, 413A-413B, 413-414, 420

### Standard 5: Algebraic Representations

Students shall represent and analyze mathematical situations and structures using algebraic symbols

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Expressions, Equations and Inequalities</b>	
<b>A.5.2.1 Select and/or write number sentences to find the unknown in problem- solving contexts involving two-digit addition and subtraction using appropriate labels Ex. Mrs. Cole’s class has 22 students. Ms River’s class joined them on a field trip. When everyone got on a bus, there were 45 children. How many students are in Ms River’s class?</b>	139A-139B, 139-140, 221A-2221B, 221-222, 224

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>A.5.2.2 Express mathematical relationships using equalities and inequalities (<math>&gt;</math>, <math>&lt;</math>, <math>=</math>, <math>\neq</math>) Ex.</b> $4 + 6 = 7 + 3$ $3 + 5 < 4 + 5$ $4 + 6 \neq 7 + 5$	5A-5B, 5-6, 9A-9B, 9-10, 91A-91B, 91-92, 399A-399B, 399-400
<b>A.5.2.3 Recognize that symbols such as <math>\square</math>, <math>\Delta</math> and <math>\diamond</math> in an addition or subtraction equation, represent a missing value that will make the statement true</b> <b>Ex.</b> $\square + 3 = 7$ $\Delta - 4 = 6$ $8 - \square = 6$ $6 = 8 - \Delta$	25, 26, 30, 54

### Standard 6: Algebraic Models

Students shall develop and apply mathematical models to represent and understand quantitative relationships

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics														
<b>Algebraic Models and Relationships</b>															
<b>A.6.2.1 Use a chart or table to organize information and to understand relationships</b> <table border="1" data-bbox="186 1491 462 1711"> <thead> <tr> <th>Starfish</th> <th>Arms</th> </tr> </thead> <tbody> <tr> <td>1</td> <td>5</td> </tr> <tr> <td>2</td> <td>10</td> </tr> <tr> <td>3</td> <td>15</td> </tr> <tr> <td>4</td> <td></td> </tr> <tr> <td>5</td> <td></td> </tr> <tr> <td>6</td> <td></td> </tr> </tbody> </table>	Starfish	Arms	1	5	2	10	3	15	4		5		6		31B, 69B, 89A-89B, 89-90, 101A, 105A-105B, 105-106, 117A-117B, 117-118, 121B, 123B, 163, 175B, 189A-189B, 189-190, 197A-197B, 197-198, 297A, 299A, 309-310, 311A-311B, 311-312, 313A-313B, 313-314, 315B, 319B, 343B, 345B, 353A, 359A, 365A, 373A, 375A, 406, 405A-405B, 405-406, 407B, 427B, 439B, 440, 447B, 473B, 487B
Starfish	Arms														
1	5														
2	10														
3	15														
4															
5															
6															

## Standard 7: Analysis of Change

Students shall analyze change in various contexts

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
Analyze Change	
<b>A.7.2.1 Interpret and compare quantitative change</b> Ex. changes in temperature, age, height, etc. “The temperature this morning was 75 degrees. This afternoon is 85 degrees. What is the difference in the temperature?”	370

## Strand: Geometry

### Standard 8: Geometric Properties

Students shall analyze characteristics and properties of 2 and 3 dimensional geometric shapes and develop mathematical arguments about geometric relationships

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
Characteristics and Properties- Three Dimensional	
<b>G.8.2.1 Identify, name, sort and describe 3-D solids (cube, sphere, rectangular prism, cone, and cylinder) according to the shapes of faces</b>	245, 247A-247B, 247-248, 249A-249B, 249-250
<b>G.8.2.2 Match three-dimensional objects to their two-dimensional faces</b>	249A-249B, 249-250, 251A-251B, 251-252



<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Characteristics and Properties- Two Dimensional</b>	
<b>G.8.2.3 Identify, classify and describe 2-D geometric figures (rectangle [including square], triangle and circle) using concrete objects drawings, and computer graphics</b>	249A-249B, 249-250

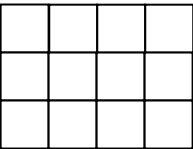
### **Standard 9: Transformation of Shapes**

**Students shall apply transformations and the use of symmetry to analyze mathematical situations**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Symmetry and Transformations</b>	
<b>G.9.2.1 Use lines of symmetry to demonstrate and describe congruent figures within a 2-D figure Ex. Letter, shapes, environmental print and polygons</b>	261A-261B, 261-262
<b>G.9.2.2 Demonstrate the motion of a single transformation</b>	259A-259B, 259-260


**Standard 10: Coordinate Geometry**

**Students shall specify locations and describe spatial relationships using coordinate geometry and other representational systems**

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Coordinate Geometry</b>	
<p><b>G.10.2.1 Extend the use of directional words to include rows and columns</b>  <b>Ex.</b>  <b>This rectangle has 3 rows and 4 columns</b></p> 	<p>Can be developed from the lesson on “Act It Out” pp: 351A-351B, 351-352</p>

**Standard 11: Visualization and Geometric Models**

**Students shall use visualization, spatial reasoning and geometric modeling**

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Spatial Visualization and Models</b>	
<p><b>G.11.2.1 Replicate a simple geometric design from a briefly displayed example or from a description</b></p>	<p>255A-255B, 255-256</p>
<p><b>G.11.2.2 Create new figures by combining and subdividing models of existing figures</b>   <b>Ex.</b></p> 	<p>255A-255B, 255-256, 264</p>

**Strand: Measurement**

**Standard 12: Physical Attributes**

**Students shall use attributes of measurement to describe and compare mathematical and real-world objects**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Time: Calendar</b>	
<b>M.12.2.1 Recognize that there are 12 months in a year and that each month has a specific number of days</b>	103B, 303A-303B, 303-304
<b>Time: Clock</b>	
<b>M.12.2.2 Recognize that there are 24 hours in a day</b>	Taught in Grade Four pp: 192A-192B, 192-193
<b>Money</b>	
<b>M.12.2.3 State the value of all coins and a dollar</b>	79, 109A-109B, 109-110, 111A-111B, 111-112
<b>M.12.2.4 Compare the value of all coins</b>	79J, 79, 109A-109B, 109-110, 111A-111B, 111-112, 113A-113B, 113-114, 115A-115B, 115-116, 117A-117B, 117-118
<b>Temperature</b>	
<b>M.12.2.5 Compare temperatures using the Fahrenheit scale on a thermometer</b>	369A-369B, 369-370
<b>Tools and Attributes</b>	
<b>M.12.2.6 Make simple comparisons within units of like dimension (units of length, mass/weight and capacity) Ex. An inch is shorter than a foot. A pound is more than an ounce. A cup is less than a pint.</b>	3343A-343B, 343-344, 345A-345B, 345-346, 347A-347B, 347-348, 355A-355B, 355-356, 365A-365B, 365-366, 367A-367B, 367-368

## Standard 13: Systems of Measurement

Students shall identify and use units, systems and processes of measurement

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Calendar</b>	
<b>M.13.2.1 Use a calendar to determine elapsed time involving a time period within a given month</b>	303B, 303-304
<b>Clock</b>	
<b>M.13.2.2 Tell time to the nearest 5-minute interval</b>	291A-291B, 291-292
<b>Elapsed Time</b>	
<b>M.13.2.3 Determine elapsed time in contextual situations in hour increments regardless of starting time</b> <u>End time unknown</u> Ex. Lunch began at 11:15 and lasted 1 hour. When was lunch over? <u>Elapsed hours unknown</u> Ex. John went to Tim’s house at 3:20. He left at 5:20. How long did he stay? <u>Beginning time unknown</u> Ex. Mary watched a movie for 2 hours. The movie ended at 8:30. When did the movie begin?	299A-299B, 299-300
<b>Money</b>	
<b>M.13.2.4 Determine the value of a combination of coins up to the dollar</b>	79, 109A-109B, 109-110, 111A-111B, 111-112, 113A-113B, 113-114, 115A-115B, 115-116, 117A-117B, 117-118
<b>M.13.2.5 Demonstrate a given value of money up to \$100 using a variety of coin combinations</b>	79, 109A-109B, 109-110, 111A-111B, 111-112, 113A-113B, 113-114, 115A-115B, 115-116, 117A-117B, 117-118

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>M.13.2.6 Demonstrate a given value of money up to \$100 using the fewest coins possible</b>	79J
<b>M.13.2.7 Represent and write the value of money using the cent sign and in decimal form when using the dollar sign</b>	121A-1121B, 121-122
<b>M.13.2.8 Calculate the amount of money, spent with and without regrouping in a contextual situation</b> Ex. <ul style="list-style-type: none"> <li>• A notebook costs 43¢ and a pencil costs 24¢. How much will Joe spend on these supplies?</li> <li>• Sue has 55¢. If pencils cost 10¢, how many can Sue buy? How much change will Sue get back?</li> </ul>	119A-119B, 119-120
<b>Temperature</b>	
<b>M.13.2.9 Read temperatures on a Fahrenheit scale in intervals of ten</b>	369A-369B, 369-370
<b>Applications</b>	
<b>M.13.2.10 Select appropriate customary measurement tools (rulers, balance scale, cup and thermometer) for situations involving length, capacity, and mass</b>	343A-343B, 343-344, 345A-345B, 345-346, 347A-347B, 347-348, 355A-355B, 355-356, 357A-357B, 357-358, 383
<b>M.13.2.11 Estimate and measure length, capacity/volume and mass with non-standard units to recognize the need for standard units</b>	399I, 341A-341B, 341-342, 353A-353B, 353-354, 363A-363B, 363-364
<b>Perimeter</b>	
<b>M.13.2.12 Determine perimeter using physical materials (paper clips, craft sticks or grids) and by using measurement tools (rulers)</b>	351A-351B, 351-352, 384

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Area</b>	
<b>M.13.2.12 Determine area using physical materials (paper clips, craft sticks or grids) and by using measurement tools (rulers)</b>	351A-351B, 351-352
<b>Applications</b>	
<b>M.13.2.14 Compare and order containers of various shapes and sizes according to their volume (Volume is determined by the number of cubic units to fill the container)</b>	353A-353B, 2353-354, 359A-359B, 359-360

**Strand: Data Analysis and Probability**

**Standard 14: Data Representation**

**Students shall formulate questions that can be addressed with data and collect, organize and display relevant data to answer them**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Collect, Organize and display data</b>	
<b>DAP.14.2.1 Identify the purpose for data collection and collect, organize, record and display the data using physical materials (pictographs, Venn diagrams and vertical and horizontal bar graphs)</b>	189A-189B, 189-190, 289J, 311A-311B, 311-312, 313A-313B, 313-314, 315A-315B, 315-316, 319A-319B, 319-320, 321A-321B, 321-322, 323A-323B, 323-324, 327A-327B

### Standard 15: Data Analysis

Students shall select and use appropriate statistical methods to analyze data

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics																																
<b>Data Analysis</b>																																	
<b>DAP.15.2.1 Analyze and make predictions from data represented in charts and graphs</b>	189A-189B, 189-190, 289J, 311A-311B, 311-312, 313A-313B, 313-314, 315A-315B, 315-316, 319A-319B, 319-320, 321A-321B, 321-322, 323A-323B, 323-324, 327A-327B, 327-328, 405-406																																
<b>DAP.15.2.2 Make true statements comparing data displayed on a graph or chart</b> <b>Ex</b> <b>More children chose pizza than chicken</b> <table border="1" style="margin-left: 20px;"> <tbody> <tr><td>7</td><td>X</td><td></td><td></td></tr> <tr><td>6</td><td>X</td><td></td><td></td></tr> <tr><td>5</td><td>X</td><td>X</td><td></td></tr> <tr><td>4</td><td>X</td><td>X</td><td></td></tr> <tr><td>3</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>2</td><td>X</td><td>X</td><td>X</td></tr> <tr><td>1</td><td>X</td><td>X</td><td>X</td></tr> <tr><td></td><td style="text-align: center;">pizza</td><td style="text-align: center;">Hot dogs</td><td style="text-align: center;">chicken</td></tr> </tbody> </table>	7	X			6	X			5	X	X		4	X	X		3	X	X	X	2	X	X	X	1	X	X	X		pizza	Hot dogs	chicken	189A-189B, 189-190, 289J, 311A-311B, 311-312, 313A-313B, 313-314, 315A-315B, 315-316, 319A-319B, 319-320, 321A-321B, 321-322, 323A-323B, 323-324, 327A-327B, 327-328, 405-406
7	X																																
6	X																																
5	X	X																															
4	X	X																															
3	X	X	X																														
2	X	X	X																														
1	X	X	X																														
	pizza	Hot dogs	chicken																														

### Standard 16: Inferences and Predictions

Students shall develop and evaluate inferences and predictions that are based on data

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Inferences and Predictions</b>	
<b>DAP.16.2.1 Make simple predictions for a given set of data</b>	373A-373B, 373-374, 375A-375B, 375-376

**Standard 17: Probability**

**Students shall understand and apply basic concepts of probability**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Probability</b>	
<b>DAP.17.2.1 Describe the probability of an event as being more, less, and equally likely to occur</b> <b>Ex.</b> <b>There are 5 blue cubes, 8 red cubes, and 1 yellow cube in this bag. Which color are you more/less likely to pull from this bag?</b>	339J, 373A-373B, 373-374



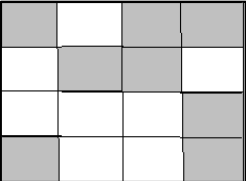
**Scott Foresman Addison – Wesley Mathematics  
to the  
Arkansas Mathematics Curriculum Framework  
Grade Three**

**Strand: Number and Operations**

**Standard 1 Number Sense:**

**Students shall understand numbers, ways of representing numbers, relationships among numbers and number systems**

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Whole Numbers</b>	
<b>NO.1.3.1 Recognize equivalent representations for the same whole number and generate them by composing and decomposing numbers</b> <b>Ex.</b> <b><math>352 = 300 + 50 + 2</math>; <math>300 + 25 + 25 + 2</math>;  <math>150 + 150 + 50 + 2</math>, etc</b>	2I, 6A-6B, 6-7, 8A-8B, 8-9, 10A-10B, 10-11, 12A-12B, 12-13, 80A-80B, 80-81, 82A-82B, 82-84
<b>NO.1.3.2 Use the place-value structure of the base-ten number system and be able to represent and compare whole numbers including thousands (using models, illustrations, symbols, expanded notation and problem solving)</b> <b>Ex.</b> <b>2,308 <u>    </u> 2,038</b>	2I, 6A-6B, 6-7, 8A-8B, 8-9, 10A-10B, 10-11, 12A-12B, 12-13, 18A-18B, 18-21
<b>NO.1.3.3 Use mathematical language and symbols to compare and order 4 digit numbers with and without appropriate technology (<math>&lt;</math>, <math>&gt;</math>, <math>=</math>)</b>	18A-18B, 18-21, 22A-22B, 22-23

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Rational Numbers</b>	
<p><b>NO.1.3.4 Represent fractions (halves, thirds, fourths, sixths and eighths) using words, numerals and physical models</b>  <b>Ex.</b></p> <ul style="list-style-type: none"> <li>• identify and illustrate parts of a whole and parts of sets of objects.</li> <li>• recognize that a fractional part of a rectangle does not have to be shaded with contiguous parts</li> </ul> 	497, 502A-502B, 502-503
<p><b>NO.1.3.5 Utilize models to recognize that the size of the whole determines the size of the fraction depending on the original quantity</b></p>	504A-504B, 504-505, 508
<p><b>NO.1.3.6 Use the place-value structure of the base-ten number system and be able to represent and compare decimals to hundredths in money (using models, illustrations, symbols, expanded notation and problem solving)</b>  <b>Ex.</b>  <b>\$19376 ____ \$13967</b></p>	568A-568B, 568-571
<p><b>NO.1.3.7 Write a fraction that is equivalent to a given fraction with the use of models</b>  <b>Ex.</b>  <b><math>1/2 = 4/8 = 8/16</math></b></p>	504A-504B, 504-505

## Standard 2: Properties of Number Operations

Students shall understand meanings of operations and how they relate to one another

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Number Theory</b>	
<b>NO.2.3.1</b> Develop an understanding of the commutative and identity properties of multiplication using objects	263, 286-287
<b>NO.2.3.2</b> Apply number theory <ul style="list-style-type: none"> <li>• determine if a 3-digit number is even or odd</li> <li>• use the terms multiple, factor, product and quotient in an appropriate context (e.g., Since <math>3 \times 4 = 12</math>, 3 and 4 are factors; 12 is the product, 3, 6, 9, 12 are multiples of 3; 4, 8, 12, 16 are multiples of 4; <math>12 \div 4 = 3</math>, the quotient)</li> </ul>	24-25, 258
<b>Whole Number Operations</b>	
<b>NO.2.3.3</b> Use conventional mathematical symbols to write equations for contextual problems involving multiplication See Appendix for examples	384A-384B, 384-385
<b>NO.2.3.4</b> Model, represent and explain division as measurement and partitive division including equal groups, related rates, price, rectangular arrays (area model), combinations and multiplicative comparison See Appendix for more details Ex. <ul style="list-style-type: none"> <li>• translate contextual situations involving division into conventional mathematical symbols</li> <li>• explain how a remainder may impact an answer in a real-world situation</li> </ul>	368I-368J, 369, 370A-370B, 370-371, 374A-374B, 374-377, 384A-384B, 384-385, 656A-656B, 656-657

### Standard 3: Numerical Operations and Estimation

Students shall compute fluently and make reasonable estimates

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<p align="center"><b>Computational Fluency-Addition and Subtraction</b></p>	
<p><b>NO.3.3.1</b>  <b>Develop, with and without appropriate technology, computational fluency, in multi-digit addition and subtraction through 999 using contextual problems</b></p> <ul style="list-style-type: none"> <li>• strategies for adding and subtracting numbers</li> <li>• Estimation of sums and differences in appropriate situations</li> <li>• relationships between operations</li> </ul>	<p>126A-126B, 126-127, 128A-128B, 128-131, 132A-132B, 132-135, 136A-136B, 136-137, 148A-148B, 148-149, 150A-150B, 150-151, 152A-152B, 152-155, 156A-156B, 156-157, 162A-162B, 162-165</p>
<p align="center"><b>Computational Fluency-Multiplication and Division</b></p>	
<p><b>NO.3.3.2</b>  <b>Develop, with and without appropriate technology, fluency with basic number combinations for multiplication and division facts (10 x 10)</b></p>	<p>276A-276B, 276-279, 280A-280B, 280-281, 282A-282B, 282-283, 284A-284B, 284-285, 286A-286B, 286-287, 288A-288B, 288-291, 292A-292B, 292-293, 316A-316B, 316-317, 318A-318B, 318-319, 320A-320B, 320-323, 324A-324B, 324-327, 328A-328B, 238-329, 340A-340B, 340-341, 386A-386B, 386-387, 388A-388B, 388-389, 390A-390B, 390-391, 392A-392B, 392-393, 396A-396B, 396-397, 402A-402B, 402-403</p>

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<p><b>NO.3.3.3</b>  <b>Develop, with and without appropriate technology, computational fluency in multiplication and division up to two-digit by one-digit numbers using two-digit by one-digit number contextual problems using</b></p> <ul style="list-style-type: none"> <li>• <b>strategies for multiplying and dividing numbers,</b></li> <li>• <b>performance of operations in more than one way,</b></li> <li>• <b>Estimation of products and quotients in appropriate situations, and</b></li> <li>• <b>relationships between operations</b></li> </ul>	<p>260A-260B, 260-261, 262A-262B, 262-265, 338A-338B, 338-339, 342A-342B, 342-343, 370A-370B, 370-371, 372A-372B, 372-373, 380A-380B, 380-381, 384A-384B, 384-385, 612A-612B, 612-615, 616A-616B, 616-617, 618A-618B, 618-621, 622A-622B, 622-623, 626A-626B, 626-629, 630A-630B, 630-631, 640A-640B, 640-643, 648A-648B, 648-649, 650A-650B, 650-651</p>
<p><b>Application of Computation</b></p>	
<p><b>NO.3.3.4</b>  <b>Solve simple problems using one operation involving addition and subtraction using a variety of methods and tools</b>  <b>(e.g., objects, mental computation, paper and pencil and with and without appropriate technology)</b></p>	<p>166A-166B, 166-167</p>
<p><b>Estimation</b></p>	
<p><b>NO.3.3.5</b>  <b>Use Estimation strategies to solve problems and judge the reasonableness of the answer</b></p>	<p>86A-86B, 86-89, 98A-98B, 98-99, 134, 137, 160A-160B, 160-161, 616A-616B, 616-617, 622A-622B, 622-623, 630</p>

**Strand: Algebra**

**Standard 4: Patterns, Relations and Functions**

**Students shall recognize, describe and develop patterns, relations and functions**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Recognize, describe and develop patterns</b>	
<b>A.4.4.1 Count forward and backward when given a number less than or equal to 1000 ____ , 399, ____, ____</b>	22A-22B, 22-23
<b>A.4.4.2 Relate skip-counting patterns to multiplication</b>	258I, 258-259, 280, 317
<b>A.4.3.3 Identify a number that is more or less than any whole number up to 1000 using multiples of ten and/or 100 Ex. 100 less than 587 is 487 10 more than 196 is 206</b>	259, 301, 282A-282B, 282-283
<b>A.4.3.4 Use repeating and growing numeric or geometric patterns to solve problems</b>	332A-332B, 332-335, 449, 528
<b>Recognize, describe and develop patterns</b>	
<b>A.4.3.5 Determine the relationship between sets of numbers by selecting the rule (1 step rule in words)</b>	72A-72B, 72-73

## Standard 5: Algebraic Representations

Students shall represent and analyze mathematical situations and structures using algebraic symbols

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Expressions, Equations and Inequalities</b>	
<b>A.5.3.1 Select and/or write number sentences (equations) to find the unknown in problem- solving contexts involving two-digit times one-digit multiplication using appropriate labels</b>	341, 628-629, 631, 632, 634-635, 637, 638A-638B, 638-639
<b>A.5.3.2 Express mathematical relationships using equalities and inequalities (<math>&gt;</math>, <math>&lt;</math>, <math>=</math>, <math>\neq</math>) Ex. <math>4 \times 9 = 36 - 3</math></b>	168A-168B, 168-169
<b>A.5.3.3 Use a symbol to represent an unknown quantity in a number sentence involving contextual situations and find the value Ex. Mary buys two bags of candy with the same number of pieces in each bag. If she has sixteen pieces in all, how many pieces of candy are in each bag? <math>2x = 16</math></b>	76A-76B, 76-77

**Standard 6: Algebraic Models**

**Students shall develop and apply mathematical models to represent and understand quantitative relationships**

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics												
<b>Algebraic Models and Relationships</b>													
<p><b>A.6.3.1 Complete a chart or table to organize given information and to understand relationships and explain the results</b>  <b>Ex. The library has 5 workstations. Four students can sit at each station How many students can sit at all the stations?</b></p> <table border="1" style="margin-left: 20px;"> <thead> <tr> <th style="text-align: center;">stations</th> <th style="text-align: center;">students</th> </tr> </thead> <tbody> <tr> <td style="text-align: center;">1</td> <td style="text-align: center;">4</td> </tr> <tr> <td style="text-align: center;">2</td> <td style="text-align: center;">?</td> </tr> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">?</td> </tr> <tr> <td style="text-align: center;">4</td> <td style="text-align: center;">?</td> </tr> <tr> <td style="text-align: center;">5</td> <td style="text-align: center;">?</td> </tr> </tbody> </table>	stations	students	1	4	2	?	3	?	4	?	5	?	204A-204B, 204-207, 270A-270B, 270-273
stations	students												
1	4												
2	?												
3	?												
4	?												
5	?												

**Standard 7: Analysis of Change**

**Students shall analyze change in various contexts**

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Analyze Change</b>	
<p><b>A.7.3.1 Identify the change over time</b>  <b>Ex. We have recorded the morning and afternoon temperatures all week Which day had the greatest change in temperature?</b></p>	222A-222B, 222-223, 232A-232B, 232-233



**Strand: Geometry**

**Standard 8: Geometric Properties**

**Students shall analyze characteristics and properties of 2 and 3 dimensional geometric shapes and develop mathematical arguments about geometric relationships**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Characteristics and Properties- Three Dimensional</b>	
<b>G.8.3.1 Compare, contrast and build 3-D solids by investigating the number of faces, edges, and vertices on models</b>	426I, 426, 428A-428B, 428-431, 432A-432B, 432-433
<b>Characteristics and Properties- Two Dimensional</b>	
<b>G.8.3.2 Identify regular polygons with at least 4 sides (square, pentagon, hexagon and octagon)</b>	427, 446A-446B, 446-449, 454A-454B, 454-455
<b>Characteristics and Properties— One Dimensional</b>	
<b>G.8.3.3 Identify and draw line, line segment and ray using appropriate labels</b>	442A-442B, 442-443
<b>Geometric Relationships</b>	
<b>G.8.3.4 Identify and draw intersecting and parallel lines</b>	442A-442B, 442-443

### Standard 9: Transformation of Shapes

Students shall apply transformations and the use of symmetry to analyze mathematical situations

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
Symmetry and Transformations	
G.9.3.1 Draw one or more lines of symmetry in a polygon	460A-460B, 460-461
G.9.3.2 Describe the motion (transformation) of a two-dimensional figure as a flip (reflection), slide (translation) or turn (rotation)	456A-456B, 456-459

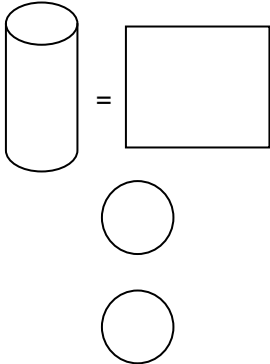
### Standard 10: Coordinate Geometry

Students shall specify locations and describe spatial relationships using coordinate geometry and other representational systems

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
Coordinate Geometry	
G.10.3.1 Locate and identify points on a coordinate grid and name the ordered pair (quadrant one only) using common language and geometric vocabulary (horizontal and vertical)	218A-218B, 218-221

**Standard 11: Visualization and Geometric Models**

**Students shall use visualization, spatial reasoning and geometric modeling**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Spatial Visualization and Models</b>	
<b>G.11.3.1</b> <b>Replicate a three-dimensional model composed of cubes when given a physical model</b>	436A-436B, 436-438, 472A, 472
<b>G.11.3.2 Determine which new figure will be formed by combining and subdividing models of existing figures</b> <b>Ex.</b> 	431

**Strand: Measurement**

**Standard 12: Physical Attributes**

**Students shall use attributes of measurement to describe and compare mathematical and real-world objects**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Time: Calendar</b>	
<b>M.12.3.1 Determine the number of days in a month, days in a year and identify the number of weeks in a year</b>	200A-200B, 200-201
<b>Time: Clock</b>	
<b>M.12.3.2 Recognize that 60 minutes equals 1 hour and that a day is divided into A.M. and P.M.</b>	190,192A-192B, 192-195
<b>Temperature</b>	
<b>M.12.3.3 Distinguish the temperature in contextual problems using the Fahrenheit scale on a thermometer Ex. If I need to wear mittens and a scarf, what temperature would it be? 35° F or 70° F?</b>	696A-696B, 696-697
<b>Tools and Attributes</b>	
<b>M.12.3.4 Demonstrate the relationship among different standard units <u>Length</u>: 12 in = 1 ft, 3 ft = 1 yd, 36 in = 1 yd <u>Capacity</u>: 2 cups = 1 pint, 2 pints = 1 quart 4 quarts = 1gallon <u>Weight</u>: 16 ounces = 1 lb</b>	536A-536B, 536-537, 538A-538B, 538-539, 680A-680B, 680-683, 690A-690B, 690-693

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>M.12.3.5 Create and complete a conversion table (from larger unit to smaller unit) to show relationships between units of measurement in the same system</b> <b>Ex. change feet to inches using multiplication</b>	536A-536B, 536-537, 538A-538B, 538-539, 680A-680B, 680-683, 690A-690B, 690-693

### Standard 13: Systems of Measurement

Students shall identify and use units, systems and processes of measurement

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Calendar</b>	
<b>M.13.3.1 Use a calendar to determine elapsed time from month to month</b>	200A-200B, 200-201
<b>Clock</b>	
<b>M.13.3.2 Tell time to the nearest 1-minute intervals</b>	196A-196B, 196-197
<b>M.13.3.3 Express time to the half hour and quarter hour using the terms half-past, quarter after, quarter -until</b>	192A-192B, 192-195
<b>Elapsed Time</b>	
<b>M.13.3.4 Determine elapsed time in contextual situations to five-minute intervals</b>  <u>End time unknown</u> <b>Ex. Lunch began at 10:45 and lasted 25 minutes. When was lunch over?</b> <u>Elapsed hours unknown</u> <b>Ex. John went to Tim’s house at 3:15. He left at 4:20. How long did he stay?</b>	198A-198B, 198-199

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Money</b>	
<b>M.13.3.5 Determine the value of money up to \$10</b>	36A-36B, 36-39
<b>M.13.3.6 Apply money concepts in contextual situations up to \$1000</b> Ex. • determine change with the least amount of currency • compare money	40A-40B, 40-41
<b>Temperature</b>	
<b>M.13.3.7 Read temperatures on Fahrenheit and Celsius scales in intervals of two and five</b>	696A-696B, 696-697
<b>Applications</b>	
<b>M.13.3.8 Use appropriate customary measurement tools for length, capacity and mass</b>	536A-536B, 536-537, 538A-538B, 538-539, 680A-680B, 680-683, 690A-690B, 690-693
<b>M.13.3.9 Estimate and measure length, capacity/volume and mass using appropriate customary units</b> <u>Length</u> : 1 inch <u>Perimeter</u> : inches, feet, etc <u>Area</u> : square inches (use models) <u>Weight</u> : pounds/ounces <u>Capacity</u> : cups, pints, quarts, gallons	464A-464B, 464-467, 468A-468B, 468-471, 536A-536B, 536-537, 538A-538B, 538-539, 680A-680B, 680-683, 690A-690B, 690-693
<b>Perimeter</b>	
<b>M.13.3.10 Find the perimeter of a figure by measuring the length of the sides</b>	464A-464B, 464-467
<b>Area</b>	
<b>M.13.3.11 Find the area of any region counting squares and half-squares</b>	468A-468B, 468-471

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Applications</b>	
<b>M.13.3.12 Develop strategies for finding the volume (cubic units) of rectangular prisms and cubes using models</b>	472A-472B, 472-473

**Strand: Data Analysis and Probability**

**Standard 14: Data Representation**

**Students shall formulate questions that can be addressed with data and collect, organize and display relevant data to answer them**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Collect, Organize and Display data</b>	
<b>DAP.14.3.1 Design a survey question after being given a topic and collect, organize, display and describe simple data using frequency tables or line plots, pictographs, and bar graphs</b>	190J, 204A-204B, 204-207, 208A-208B, 208-211

**Standard 15: Data Analysis**

**Students shall select and use appropriate statistical methods to analyze data**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Data Analysis</b>	
<b>DAP.15.3.1 Read and interpret pictographs and bar graphs in which symbols or intervals are greater than one</b>	212A-212B, 212-215

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>DAP.15.3.2 Match a set of data with a graphical representation of the data</b>	216A-216B, 216-217

### Standard 16: Inferences and Predictions

Students shall develop and evaluate inferences and predictions that are based on data

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Inferences and Predictions</b>	
<b>DAP.16.3.1 Make predictions for a given set of data</b>	190J, 204A-204B, 204-207, 208A-208B, 208-211, 212A-212B, 212-215

### Standard 17: Probability

Students shall understand and apply basic concepts of probability

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Probability</b>	
<b>DAP.17.3.1 Use fractions to predict probability of an event</b> Ex. If there were 5 blue tiles, 3 red tiles, and 2 green tiles in a bag What is the probability you would pull out a green tile?	678J, 704A-704B, 704-707
<b>DAP.17.3.2 Conduct simple probability experiments, record the data and draw conclusions about the likelihood of possible outcomes (roll number cubes, pull tiles from a bag, spin a spinner, or determine the fairness of games)</b>	678J, 704A-704B, 704-707



Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<p><b>DAP.17.3.3 Use physical models, pictures, and organized lists to find combinations of two sets of objects</b>  <b>Ex. Sarah has a red shirt, white shirt, and blue shirt .She also has a pair of kaki pants and blue pants. How many different combinations of shirts and pants can she wear?</b></p>	<p>578A-578B, 578-579</p>


**Scott Foresman Addison – Wesley Mathematics  
to the  
Arkansas Mathematics Curriculum Framework  
Grade Four**

**Strand: Number and Operations**

**Standard 1 Number Sense:**

**Students shall understand numbers, ways of representing numbers, relationships among numbers and number systems**

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Whole Numbers</b>	
<b>NO.1.4.1 Recognize equivalent representations for the same whole number and generate them by composing and decomposing numbers</b> Ex. $1,076 = 1,000 + 70 + 6, 500 + 500 + 25 + 25 + 25 + 1; 250 + 250 + 250 + 250 + 75 + 1, \text{ etc...}$	4A-4B, 4-7, 8A-8B, 8-9, 10A-10B, 10-11
<b>NO.1.4.2 Use the place-value structure of the base-ten number system and be able to represent and compare whole numbers to millions (using models, illustrations, symbols, expanded notation and problem solving)</b> Ex. $1,246,477 \underline{\hspace{1cm}} 1,244$	10A-10B, 10-11, 16A-16B, 16-19
<b>NO.1.4.3 Use mathematical language and symbols to compare and order any whole numbers with and without appropriate technology (<math>&lt;, &gt;, =</math>)</b>	16A-16B, 16-19

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<p><b>NO.1.4.4 Write a fraction to name part of a whole, part of a set, a location on a number line, and the division of whole numbers, using models up to 12/12</b></p> <p><b>Ex.</b></p> <p><math>\frac{1}{4}</math></p>  <p>● ○</p> <p><math>\frac{1}{4} = \text{○} \text{○}</math></p> <p><math>\frac{1}{4} = \text{---} \text{---} \text{---} \text{---}</math></p> <p>0    <math>\frac{1}{4}</math>    <math>\frac{1}{2}</math>    1</p> <p><math>\frac{1}{4} =</math> One cookie shared by 4 children</p>	<p>499, 500A-500B, 500-501, 502A-502B, 502-503, 504A-504B, 504-507</p>
<b>Rational Numbers</b>	
<p><b>NO.1.4.5 Utilize models, benchmarks, and equivalent forms to recognize that the size of the whole determines the size of the fraction</b></p>	<p>508A-508B, 508-509</p>
<p><b>NO.1.4.6 Use the place-value structure of the base-ten number system and be able to represent and compare decimals to hundredths (using models, illustrations, symbols, expanded notation and problem solving)</b></p> <p><b>Ex. 3.87 ___ 3.78</b></p>	<p>21, 2, 28A-28B, 28-29, 34A-34B, 34-37, 628A-628B, 628-629, 630A-630B, 630-631</p>
<p><b>NO.1.4.7</b></p> <p><b>Write an equivalent decimal for a given fraction relating to money</b></p> <p><b>Ex. <math>\frac{1}{10} = \\$010</math>, <math>\frac{1}{4} = \\$025</math></b></p>	<p>Can be developed from the lesson on “Decimals and Fractions” pp:624A-624B, 624-627</p>

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>NO.1.4.8</b> <b>Write a fraction that is equivalent to a given fraction with the use of models</b> <b>Ex. <math>1/3 = 2/6 = 4/12</math></b>	516A-516B, 516-519, 624

## Standard 2: Properties of Number Operations

Students shall understand meanings of operations and how they relate to one another

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Number Theory</b>	
<b>NO.2.4.1</b> <b>Develop an understanding of the associative and zero properties of multiplication using objects</b>	129A-129B, 129-131, 288A-288B, 288-289
<b>NO.2.4.2</b> <b>Apply number theory</b> <ul style="list-style-type: none"> <li>• determine if any number is even or odd</li> <li>• use the terms multiple, factor, and divisible by in an appropriate context</li> <li>• generate and use divisibility rules for 2, 5, and 10</li> <li>• demonstrate various multiplication &amp; division relationships</li> </ul>	124A-124B, 124-126, 128, 146A-146B, 146-147, 148A-148B, 148-149, 402A-402B, 402-403
<b>Whole Number Operations</b>	
<b>NO.2.4.3</b> Use conventional mathematical symbols to write equations for contextual problems involving multiplication <b>See Appendix for examples</b>	124B, 126, 130, 397

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<p><b>NO.2.4.4 Represent and explain division as measurement and partitive division including equal groups, related rates, price, rectangular arrays (area model), combinations and multiplicative comparison See Appendix for more details</b>  <b>Ex.</b></p> <ul style="list-style-type: none"> <li>• translate contextual situations involving division into conventional mathematical symbols</li> <li>• explain how a remainder may impact an answer in a real-world situation</li> </ul>	<p>146A-146B, 146-147, 384A-384B, 384-385, 396A-396B, 396-399</p>

**Standard 3: Numerical Operations and Estimation**

**Students shall compute fluently and make reasonable estimates**

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<p><b>Computational Fluency-Addition and Subtraction</b></p>	
<p><b>NO.3.4.1 Demonstrate, with and without appropriate technology, computational fluency in multi-digit addition and subtraction in contextual problems</b></p>	<p>63, 66-67, 70, 81, 84</p>
<p><b>Computational Fluency-Multiplication and Division</b></p>	
<p><b>NO.3.4.2 Demonstrate fluency with combinations for multiplication and division facts (12 x 12) and use these combinations to mentally compute related problems (30 x 50)</b></p>	<p>262A-262B, 262-263</p>

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<p><b>NO.3.4.3</b>  <b>Attain, with and without appropriate technology, computational fluency in multiplication and division using contextual problems using</b></p> <ul style="list-style-type: none"> <li>• <b>two-digit by two-digit multiplication (larger numbers with technology),</b></li> <li>• <b>up to three-digit by two digit division (larger numbers with technology),</b></li> <li>• <b>strategies for multiplication and dividing numbers,</b></li> <li>• <b>performance of operations in more than one way,</b></li> <li>• <b>Estimation of products and quotients in appropriate situations, and</b></li> <li>• <b>relationships between operations</b></li> </ul>	<p>148A-148B, 148-149, 316A-316B, 316-319, 320A-320B, 320-323, 332A-332B, 332-335, 336A-336B, 336-337, 340A-340B, 340-341, 364I-364J, 366A-366B, 366-367, 368A-368B, 368-370, 374A-374B, 374-377, 380A-380B, 380-383, 386A-386B, 386-389, 390A-390B, 390-391, 392A-392B, 392-393</p>
<b>Application of Computation</b>	
<p><b>NO.3.4.4 Solve simple problems using operations involving addition, subtraction, and multiplication using a variety of methods and tools (e.g., objects, mental computation, paper and pencil and with and without appropriate technology)</b></p>	<p>86A-86B, 86-87, 282A-282B, 282-283, 338A-338B, 338-339</p>
<b>Estimation</b>	
<p><b>NO.3.4.5 Use Estimation strategies to solve problems and judge the reasonableness of the answer</b></p>	<p>60I, 62-63, 64-67, 68A-68B, 68-71, 76-77, 258A-258B, 258-261, 271, 316A-316B, 316-319, 323, 368A-368B, 368-371, 408, 576, 580, 636A-636B, 636-637</p>

**Strand: Algebra**

**Standard 4: Patterns, Relations and Functions**

Students shall recognize, describe and develop patterns, relations and functions

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Recognize, Describe and Develop Patterns</b>	
<b>A.4.4.1 Identify a number that is more or less than any whole number using multiples of 10, 100 and/or 1000 Ex. 100 more than 4987 is 5087</b>	11, 63, 65
<b>A.4.4.2 Use repeating and growing numeric and geometric patterns to make predictions and solve problems</b>	10A-10B, 10-11, 37, 90A-90B, 90-91, 128A-128B, 128-131, 136A-136B, 136-137, 256A-256B, 256-257, 314A-314B, 314-315, 366A-366B, 366-367, 406A-406B, 406-407, 454, 641
<b>Patterns, Relations and Functions</b>	
<b>A.4.4.3 Determine the relationship between sets of numbers by selecting the rule (2 step rule in words)</b>	90-91, 128, 136, 164A-164B, 164-165, 314, 366, 454, 641

## Standard 5: Algebraic Representations

Students shall represent and analyze mathematical situations and structures using algebraic symbols

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Expressions, Equations and Inequalities</b>	
<b>A.5.4.1 Select and/or write number sentences (equations) to find the unknown in problem-solving contexts involving two-digit by one-digit division using appropriate labels</b>	374A-374B, 374-376,382-383
<b>A.5.4.2 Express mathematical relationships using simple equations and inequalities (&gt;, &lt;, =, ≠) Ex. 4 x 5 _____ 8 x 2 +3</b>	62, 135, 288
<b>A.5.4.3 Use a variable to represent an unknown quantity in a number sentence involving contextual situations and find the value Ex. Susie bought 48 pencils. If the pencils came in packages of 12, how many packages of pencils did she buy? P = 48 ÷ 12</b>	160A-160B, 160-163, 396A-396B, 396-399, 690A-690B, 690-691
<b>Algebraic Models and Relationships</b>	
<b>A.6.4.1 Create a chart or table to organize given information and to understand relationships and explain the results Ex. Troy must read independently for 2 hours a week. If Troy reads 20 minutes a day, how long will it take him to read a total of two hours?</b>	140A-140B, 140-143, 326A-326B, 326-329



## Standard 7: Analysis of Change

Students shall analyze change in various contexts

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics								
<b>Analyze Change</b>									
<b>A.7.4.1 Identify, describe and generalize relationships in which quantities change proportionally</b> <b>Ex.</b> <b>If a car travels at a rate of 50 mph, how far will it travel in three hours?</b> <table border="1" data-bbox="196 768 488 821"> <tr> <td>hours</td> <td>1</td> <td>2</td> <td>3</td> </tr> <tr> <td>miles</td> <td>50</td> <td>100</td> <td>150</td> </tr> </table>	hours	1	2	3	miles	50	100	150	164A-164B, 164-165
hours	1	2	3						
miles	50	100	150						

## Strand: Geometry

## Standard 8: Geometric Properties

Students shall analyze characteristics and properties of 2 and 3 dimensional geometric shapes and develop mathematical arguments about geometric relationships

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Characteristics and Properties- Three Dimensional</b>	
<b>G.8.4.1 Identify, describe and classify 3-D solids by properties including the number of vertices, edges, and shapes of faces using models</b>	432I, 432, 434A-434B, 343-347
<b>Characteristics and Properties- Two Dimensional</b>	
<b>G.8.4.2 Identify regular and irregular polygons including octagon</b>	438A-438B, 438-439, 444A-444B, 444-447

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Characteristics and Properties—One Dimensional</b>	
<b>G.8.4.3 Identify, draw, and describe a line, line segment, a ray, an angle, intersecting, perpendicular, and parallel lines</b>	440A-440B, 440-443
<b>Geometric Relationships</b>	
<b>G.8.4.4 Identify and describe intersecting, perpendicular and parallel lines in problem solving context</b>	440A-440B, 440-443
<b>G.8.4.5 Classify angles relative to 90° as more than, less than or equal to</b>	440A-440B, 440-443

#### **Standard 9: Transformation of Shapes**

**Students shall apply transformations and the use of symmetry to analyze mathematical situations**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Symmetry and Transformations</b>	
<b>G.9.4.1 Determine the result of a transformation of a two-dimensional figure as a slide (translation), flip (reflection) or turn (rotation) and justify the answer</b>	452A-452B, 452-455

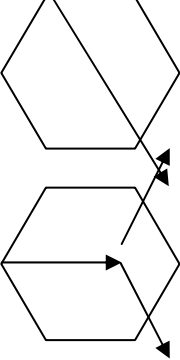
**Standard 10: Coordinate Geometry**

**Students shall specify locations and describe spatial relationships using coordinate geometry and other representational systems**

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Coordinate Geometry</b>	
<b>G.10.4.1 Locate and identify points on a coordinate grid and name the ordered pair (quadrant one only) using common language and geometric vocabulary (horizontal and vertical)</b>	212A-212B, 212-215, 686I, 686, 692A-692B, 692-695

**Standard 11: Visualization and Geometric Models**

**Students shall use visualization, spatial reasoning and geometric modeling**

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Spatial Visualization and Models</b>	
<b>G.11.4.1 Construct a three-dimensional model composed of cubes when given an illustration</b>	473, 476A-476B, 476-477
<p><b>G.11.4.2</b>  <b>Create new figures by combining and subdividing models of existing figures in multiple ways and record results in a table</b>  <b>Ex.</b></p> 	444B, 447, 454, 456, 475

**Strand: Measurement**

**Standard 12: Physical Attributes**

**Students shall use attributes of measurement to describe and compare mathematical and real-world objects**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Time: Clock</b>	
<b>M.12.4.1 Recognize that 60 seconds equals 1 minute</b>	192A-192B, 192-195
<b>Temperature</b>	
<b>M.12.4.2 Distinguish the temperature in contextual problems using the Fahrenheit scale on a thermometer</b>	664A-664B, 664-665
<b>Tools and Attributes</b>	
<b>M.12.4.3 Use the relationship among units of measurement</b> <b><u>Length:</u></b> 12 in = 1 ft 3 ft = 1 yd 36 in = 1 yd 100 cm = 1 m <b><u>Capacity:</u></b> 2 cups = 1 pint 2 pints = 1 quart 4 quarts = 1 gallon <b><u>Weight:</u></b> 16 ounces = 1 lb	560J, 561, 588A-588B, 588-589, 596A-596B, 596-599
<b>M.12.4.4 Create and complete a conversion table to show relationships between units of measurement in the same system</b>	560J, 561, 588A-588B, 588-589, 596A-596B, 596-599

## Standard 13: Systems of Measurement

Students shall identify and use units, systems and processes of measurement

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Calendar</b>	
<b>M.13.4.1 Using a calendar to determine elapsed time from month to month</b>	200A-200B, 200-201
<b>Clock</b>	
<b>M.13.4.2 Solve problems involving conversions between minutes and hours</b>	Can be developed from the unit on “Units of Time” pp: 192A-192B, 192-194
<b>M.13.4.3 Restate the time in multiple ways given an analog clock to the nearest 1-minute</b>	190A-190B, 190-191
<b>Elapsed Time</b>	
<b>M.13.4.4 Determine elapsed time in contextual situations to five-minute intervals with beginning time unknown</b> Ex. Mary watched a movie for 1 hour and 15 minutes. The movie ended at 8:15. When did the movie begin?	196A-196B, 196-197
<b>Money</b>	
<b>M.13.4.5 Apply money concepts in contextual situations</b> Ex. <ul style="list-style-type: none"> <li>• determine the better buy</li> <li>• determine change back with the least amount of currency</li> <li>• compare money</li> </ul>	32A-32B, 32-33, 286A-286B, 286-287341, 393
<b>Temperature</b>	
<b>M.13.4.6 Read temperatures on Fahrenheit and Celsius scales</b>	664A-664B, 664-665

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Applications</b>	
<b>M.13.4.7 Use appropriate customary and metric measurement tools for length, capacity and mass</b>	560J, 588A-588B, 588-589, 592A-592B, 592-593, 594A-594B, 594-595, 652A-652B, 652-653, 654A-654B, 654-655, 656A-656B, 656-657
<b>M.13.4.8 Estimate and measure length, capacity/volume and mass using appropriate customary and metric units</b> <u>Length:</u> 1/2 inch, 1 cm <u>Perimeter:</u> inches, feet, centimeters, meters <u>Area:</u> square inches, square feet, square centimeters, square meters <u>Weight:</u> pounds/ounces <u>Mass:</u> kilograms/grams <u>Capacity:</u> cups, pints, quarts, gallons <u>Volume:</u> liters	588A-588B, 588-589, 590A-590B, 590-591, 592A-592B, 592-593, 594A-594B, 594-595, 652A-652B, 652-653, 654A-654B, 654-655, 656A-656B, 656-657
<b>Perimeter</b>	
<b>M.13.4.9 Use strategies for finding the perimeter of a rectangle</b>	432J, 464A-464B, 464-467
<b>Area</b>	
<b>M.13.4.10 Use strategies for finding the area of a rectangle</b>	432J, 468A-468B, 468-471
<b>Applications</b>	
<b>M.13.4.11 Use strategies to find the volume (cubic units) of rectangular prisms and cubes</b>	476A-476B, 476-477

**Strand: Data Analysis and Probability**

**Standard 14: Data Representation**

**Students shall formulate questions that can be addressed with data and collect, organize and display relevant data to answer them**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Collect, Organize and display data</b>	
<b>DAP.14.4.1 Create a data collection plan after being given a topic and collect, organize, display, describe and interpret simple data using frequency tables or line plots, pictographs and bar graphs</b>	188J, 189, 204A-204B, 204-205, 206A-206B, 206-207, 208A-208B, 208-211, 216A-216B, 216-219, 220-221, 222A-222B, 222-223

**Standard 15: Data Analysis**

**Students shall select and use appropriate statistical methods to analyze data**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Data Analysis</b>	
<b>DAP.15.4.1 Represent and interpret data using pictographs, bar graphs and line graphs in which symbols or intervals are greater than one</b>	188I-188J, 204A-204B, 204-205, 206A-206B, 206-207, 208A-208B, 208-210, 216A-216B, 216-219, 222A-222B, 222-223, 230A-230B, 230-231, 326A-326B, 326-328
<b>DAP.15.4.2 Match a set of data with a graphical representation of the data</b>	Taught in Grade 3 pp: 216A-216B, 216-217

## Standard 16: Inferences and Predictions

Students shall develop and evaluate inferences and predictions that are based on data

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
Data Analysis	
DAP.16.4.1 Make predictions for a given set of data	209, 218A-218B, 218-219

## Standard 17: Probability

Students shall understand and apply basic concepts of probability

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
Probability	
DAP.17.4.1 Use fractions to predict probability of an event Ex. There are 5 blue tiles, 3 red tiles, and 2 green tiles What is the probability of pulling out a green tile?	706A-706B, 706-709
DAP.17.4.2 Conduct simple probability experiments, record the data and draw conclusions about the likelihood of possible outcome (roll number cubes, pull tiles from a bag, spin spinner, or determine the fairness of the game)	710A-710B, 710-711
DAP.17.4.3 Find all possible combinations of 2 or 3 sets of objects	704A-704B, 704-705



**Scott Foresman Addison – Wesley Mathematics  
to the  
Arkansas Mathematics Curriculum Framework  
Grade Five**

**Strand: Number and Operations**

**Standard 1 Number Sense:**

**Students shall understand numbers, ways of representing numbers, relationships among numbers and number systems**

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Rational Numbers</b>	
<p><b>NO.1.5.1 Use models and visual representations to develop the concepts of the following:</b>  <b><u>Fractions:</u></b></p> <ul style="list-style-type: none"> <li>• parts of unit wholes</li> <li>• parts of a collection</li> <li>• locations on number lines</li> <li>• locations on ruler (benchmark fractions)</li> <li>• divisions of whole numbers</li> </ul> <p><b><u>Ratios:</u></b></p> <ul style="list-style-type: none"> <li>• part-to-part (2 boys to 3 girls)</li> <li>• part-to-whole (2 boys to 5 people)</li> </ul> <p><b><u>Percents:</u></b></p> <ul style="list-style-type: none"> <li>• part-to-100</li> </ul>	<p>394A-394B, 394-397, 398A-398B, 398-399, 404A-404B, 404-405, 532A-532B, 532-533, 646A-646B, 646-647, 668A-668B, 668-669</p>
<p><b>NO.1.5.2 Develop understanding of decimal place value using models</b></p>	<p>2I, 4A-4B, 4-5, 8B, 8-11</p>
<p><b>NO.1.5.3 Identify decimal and percent equivalents for benchmark fractions</b></p>	<p>668A-668B, 668-669</p>

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>NO.1.5.4 Round and compare decimals to a given place value (whole number, tenths, hundredths)</b>	12A-12B, 12-13, 26A-26B, 26-27, 28A-28B, 28-31, 237
<b>NO.1.5.5 Use models of benchmark fractions and their equivalent forms:</b> <ul style="list-style-type: none"> <li>• to analyze the size of fractions</li> <li>• to determine that simplification does not change the value of the fraction</li> <li>• to convert between mixed numbers and improper fractions</li> </ul>	400A-400B, 400-401, 410A-410B, 410-413, 416A-416B, 416-417, 464A-464B, 464-465
<b>NO.1.5.6 Use models to differentiate between perfect squares up to 100 and other numbers</b>	167

## Standard 2: Properties of Number Operations

Students shall understand meanings of operations and how they relate to one another

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Number Theory</b>	
<b>NO.2.5.1 Use divisibility rules to determine if a number is a factor of another number (2, 3, 5, 10)</b>	162A-162B, 162-163
<b>NO.2.5.2 Identify commutative and associative properties</b>	22A-22B, 22-25, 66A-66B, 66-67, 696A-696B, 696-699

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>NO.2.5.3 Identify the distributive property by using physical models to solve computation and real world problems</b>	70A
<b>NO.2.5.4 Apply rules (conventions) for order of operations to whole numbers where the left to right computations are modified only by the use of parentheses</b>	172A-172B, 172-173
<b>Understand Operations</b>	
<b>NO.2.5.5 Model addition, subtraction, and multiplication of fractions with like and unlike denominators and decimals</b>	458J, 460A-460B, 460-461, 462A-462B, 462-463, 466A-466B, 466-469, 472A-472B, 472-472, 476A-476B, 476-477, 478A-478B, 478-481, 490A-490B, 490-492, 496A-496B, 496-499, 500A-500B, 500-501

### Standard 3: Numerical Operations and Estimation

Students shall compute fluently and make reasonable estimates

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Computational Fluency</b>	
<b>NO.3.5.1 Develop and use a variety of algorithms with computational fluency to perform whole number operations using addition and subtraction (up to 5 digit numbers), multiplication (up to 3-digit x 2 digit), division (up to 2-digit divisor) interpreting remainders, including real world problems</b>	22A-22B, 22-25, 36A-36B, 36-37, 66A-66B, 66-67, 70A-70B, 70-71, 72A-72B, 72-75, 130J, 132A-132B, 132-135, 136A-136B, 136-137, 148A-148B, 148-151, 152A-152B, 152-155, 156A-156B, 156-157, 158A-158B, 158-159, 200I-200J, 202A-202B, 202-203, 214A-214B, 214-217, 218A-218B, 218-221, 222A-222B, 222-223, 224A-224B, 224-225

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>NO.3.5.2 Develop and use algorithms:</b> <ul style="list-style-type: none"> <li>• to add and subtract numbers containing decimals (up to thousandths place)</li> <li>• to multiply decimals (hundredths x tenths)</li> <li>• to divide decimals by whole number divisors</li> <li>• to add and subtract fractions with like denominators</li> </ul>	2J, 8A-38B, 38-39, 40A-40B, 40-41, 64J, 88A-88B, 88-91, 92A-92B, 92-93, 94A-94B, 94-97, 230A-230B, 230-231, 232A-232B, 232-233, 234A-234B, 234-237
<b>NO.3.5.3 Solve, with and without appropriate technology, two-step problems using a variety of methods and tools (i.e. objects, mental computation, paper and pencil)</b>	226A-226B, 226-227
<b>Estimation</b>	
<b>NO.3.5.4 Develop and use strategies to Estimate the results of whole number computations and to judge the reasonableness of such results</b>	28A-28B, 28-31, 68A-68B, 68-69, 86A-86B, 86-87, 88, 94, 138A-138B, 138-141, 204A-204B, 204-207, 233, 698
<b>Application Computation</b>	
<b>NO.3.5.5 Use factors of numbers:</b> <ul style="list-style-type: none"> <li>• to introduce exponents (Ex: <math>36 = 6 \times 6</math> or <math>6^2</math>)</li> <li>• to find common factors of two numbers</li> <li>• to simplify fractions to the lowest terms</li> </ul>	167

**Strand: Algebra**

**Standard 4: Patterns, Relations and Functions**

**Students shall recognize, describe and develop patterns, relations and functions**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Patterns, Relations and Functions</b>	
<b>A.4.5.1 Solve problems by finding the next term or missing term in a pattern or function table using real world situations</b>	14A-14B, 14-17, 66, 75, 84A-84B, 84-85, 136A-136B, 136-137, 142-143, 144A-144B, 144-145, 176A-176B, 176-179, 202A-202B, 202-203, 728A-728B, 728-729
<b>A.4.5.2 Interpret and write a rule for a one-operation function table (Ex: adding 3)</b>	106A-106B, 106-107

**Standard 5: Algebraic Representations**

**Students shall represent and analyze mathematical situations and structures using algebraic symbols**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Expressions, Equations and Inequalities</b>	
<b>A.5.5.1 Model and solve simple equations by informal methods using manipulatives and appropriate technology</b>	108A-108B, 108-109, 696A-696B, 696-699, 700A-700B, 700-701, 702A-702B, 702-703, 706A-706B, 706-709
<b>A.5.5.2 Write expressions containing one variable (a letter representing an unknown quantity) using rules for addition and subtraction</b>	100A-100B, 100-103, 104A-104B, 104-105

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>A.5.5.3 Select, write and evaluate algebraic expressions with one variable by substitution (Ex: Evaluate <math>x+4</math> if <math>x=7</math>)</b>	100A-100B, 100-103, 104A-104B, 104-105

### Standard 6: Algebraic Models

Students shall develop and apply mathematical models to represent and understand quantitative relationships

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Algebraic Models and Relationships</b>	
<b>A.6.5.1 Draw conclusions and make predictions, with and without appropriate technology, from models, tables and line graphs</b>	266A-266B, 266-269, 606A-606B, 606-607, 660A-660B, 660-661

### Standard 7: Analysis of Change

Students shall analyze change in various contexts

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Analyze Change</b>	
<b>A.7.5.1 Model and describe quantities that change using real world situations (Ex. age and height)</b>	266A-266B, 266-269

**Strand: Geometry**

**Standard 8: Geometric Properties**

Students shall analyze characteristics and properties of 2 and 3 dimensional geometric shapes and develop mathematical arguments about geometric relationships

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Characteristics of Geometric Shapes</b>	
<b>G.8.5.1 Identify and model regular and irregular polygons including decagon</b>	326I-326J, 327, 340A-340B, 340-341, 342A-342B, 342-345, 346A-346B, 346-349, 356A-356B, 356-357
<b>G.8.5.2 Identify and draw congruent, adjacent, obtuse, acute, right and straight angles (Label parts of an angle: vertex, rays, interior and exterior)</b>	332A-332B, 332-335, 363
<b>G.8.5.3 Model and identify circle, radius, diameter, center, circumference and chord</b>	336A-336B, 336-337, 542A-542B, 542-545
<b>G.8.5.4 Model and identify the properties of congruent figures</b>	360A-360B, 360-362

**Standard 9: Transformation of Shapes**

Students shall apply transformations and the use of symmetry to analyze mathematical situations

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Symmetry and Transformations</b>	
<b>G.9.5.1 Predict and describe the results of translation (slide), reflection (flip), rotation (turn), showing that the transformed shape remains unchanged</b>	364A-364B, 364-366

### Standard 10: Coordinate Geometry

Students shall specify locations and describe spatial relationships using coordinate geometry and other representational systems

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
Coordinate Geometry	
G.10.5.1 Use geometric vocabulary (horizontal/x-axis, vertical/ y-axis, ordered pairs) to describe the location and plot points in Quadrant I	174A-174B, 174-175

### Standard 11: Visualization and Geometric Models

Students shall use visualization, spatial reasoning and geometric modeling

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
Spatial Visualization and Models	
G.11.5.1 Using grid paper, draw and identify two-dimensional patterns (nets) for cubes	598A-598B, 598-601



**Strand: Measurement**

**Standard 12: Physical Attributes**

**Students shall use attributes of measurement to describe and compare mathematical and real-world objects**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Attributes and Tools</b>	
<b>M.12.5.1 Identify and select appropriate units and tools to measure (Ex. angles with degrees, distance with feet)</b>	332A-332B, 332-335, 528B, 531, 532A-532B, 532-533, 534A-534B, 534-535, 562B, 564A-564B, 564-547, 568A-568B, 568-569, 614A-614B, 614-615, 616A-616B, 616-617, 620A-620B, 620-621, 622A-622B, 622-623
<b>M.12.5.2 Make conversions within the customary measurement system in real world problems (Ex. hours to minutes, feet to inches, quarts to gallons, etc)</b>	526, 528A-528B, 528-531, 614A-614B, 614-615, 620A-620B, 620-621
<b>M.12.5.3 Establish through experience benchmark prefixes of mili-, centi-, and kilo-</b>	528A-528B, 528-531, 616A-616B, 616-617, 622A-622B, 622-623
<b>M.12.5.4 Understand when to use linear units to describe perimeter, square units to describe area or surface area, and cubic units to describe volume, in real world situations</b>	540A-540B, 540-541, 548A-548B, 548-549, 610A-610B, 610-613
<b>M.12.5.5 Model the differences between covering the faces (surface area/nets) and filling the interior (volume of cubes)</b>	598A-598B, 598-601, 610A-610B, 610-612

## Standard 13: Systems of Measurement

Students shall identify and use units, systems and processes of measurement

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Attributes and Tools</b>	
<b>M.13.5.1 Solve real world problems involving one elapsed time, counting forward (calendar and clock)</b>	562B, 564A-564B, 564-567
<b>M.13.5.2 Determine which unit of measure or measurement tool matches the context for a problem situation</b>	531, 535, 620, 623
<b>M.13.5.3 Draw and measure distance to the nearest cm and <math>\frac{1}{4}</math> inch accurately</b>	528A-528B, 528-531, 534A-534B, 534-535
<b>M.13.5.4 Develop and use strategies to solve real world problems involving perimeter and area of rectangles</b>	540A-540B, 540-541, 548A-548B, 548-549, 550A-550B, 550-551, 552A-552B, 552-553, 554A-554B, 554-555
<b>M.13.5.5 Count the distance between two points on a horizontal or vertical line and compare the lengths of the paths on a grid (Ex. shortest path, paths of equal length, etc)</b>	8A, 708, 716A-716B, 716
<b>M.13.5.6 Use benchmark angles (Ex. 45 degrees, 90 degrees, 120 degrees, 180 degrees) to estimate the measure of angles</b>	332A-332B, 332-335

**Strand: Data Analysis and Probability**

**Standard 14: Data Representation**

Students shall formulate questions that can be addressed with data and collect, organize and display relevant data to answer them

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Collect, Organize and Display data</b>	
<b>DAP.14.5.1 Develop appropriate questions for surveys</b>	260A-260B, 260-261
<b>DAP.14.5.2 Collect numerical and categorical data using surveys, observations and experiments that would result in bar graphs, line graphs, line plots and stem-and-leaf plots</b>	260A-260B, 260-261, 262A-262B, 262-265, 266A-266B, 266-269, 270A=270B, 270-273, 276A-276B, 276-279, 288A-288B, 288-291
<b>DAP.14.5.3 Construct and interpret frequency tables, charts, line plots, stem-and-leaf plots and bar graphs</b>	260A-260B, 260-261, 262A-262B, 262-265, 266A-266B, 266-269, 270A-270B, 270-273, 276A-276B, 276-279, , 288A-288B, 288-291, 292A-292B, 292-293

**Standard 15: Data Analysis**

Students shall select and use appropriate statistical methods to analyze data

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Data Analysis</b>	
<b>DAP.15.5.1 Interpret graphs such as line graphs, double bar graphs, and circle graphs</b>	260A-260B, 260-261, 262A-262B, 262-265, 266A-266B, 266-269, 270A=270B, 270-273, 276A-276B, 276-279, 282A-282B, 282-285, 286A-286B, 286-287

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>DAP.15.5.2 Determine, with and without appropriate technology, the range, mean, median and mode (whole number data sets) and explain what each indicates about the set of data</b>	282A-282B, 282-285

**Standard 16: Inferences and Predictions**

Students shall develop and evaluate inferences and predictions that are based on data

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Data Analysis</b>	
<b>DAP.16.5.1 Make predictions and justify conclusions based on data</b>	262-265, 266, 270, 272, 276-279, 280, 282-284, 287

**Standard 17: Probability**

Students shall understand and apply basic concepts of probability

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Data Analysis</b>	
<b>DAP.17.5.1 Identify and predict the probability of events within a simple experiment</b>	302A-302B, 302-305
<b>DAP.17.5.2 List and explain all possible outcomes in a given situation</b>	300A-300B, 300-301, 302A-302B, 302-304

**Scott Foresman Addison – Wesley Mathematics  
to the  
Arkansas Mathematics Curriculum Framework  
Grade Six**

**Strand: Number and Operations**

**Standard 1 Number Sense:**

**Students shall understand numbers, ways of representing numbers, relationships among numbers and number systems**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Rational Numbers</b>	
<b>NO.1.6.1 Demonstrate conceptual understanding to find a specific percent of a number, using models, real-life examples, or explanations</b>	352J, 354A-354B, 354-357, 366A-366B, 366-367, 370A-370B, 370-371, 380A-380B, 380-383, 384A-384B, 384-385
<b>NO.1.6.2 Find decimal and percent equivalents for proper fractions and explain why they represent the same value</b>	325I, 358A-358B, 358-361
<b>NO.1.6.3 Round and compare decimals to a given place value including thousandths</b>	78A-78B, 78-79, 80A-80B, 80-81
<b>NO.1.6.4 Convert, compare and order fractions (mixed numbers and improper fractions) decimals and percents and find their approximate locations on a number line</b>	78A-78B, 78-79, 80A-80B, 80-81, 164A-164B, 164-167, 168A-168B, 168-163 , 176A-176B, 176-179

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>NO.1.6.5 Recognize and identify perfect squares and their square roots</b>	8A-8B, 8-11

## Standard 2: Properties of Number Operations

Students shall understand meanings of operations and how they relate to one another

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Number Theory</b>	
<b>NO.2.6.1 Use divisibility rules to determine if a number is a factor of another number (4, 6, 9)</b>	142A-142B, 142-145
<b>NO.2.6.2 Apply the distributive property of multiplication over addition to simplify computations with whole numbers</b>	30A-30B, 30-31
<b>NO.2.6.3 Apply the addition, subtraction, multiplication and division properties of equality to one-step equations with whole numbers</b>	44A-44B, 44-47
<b>NO.2.6.4 Apply rules (conventions) for order of operations to whole numbers with and without parentheses</b>	24A-24B, 24-27
<b>Understand Operations</b>	
<b>NO.2.6.5 Model multiplication and division of fractions (including mixed numbers) and decimals using pictures and physical objects (Ex: weight, money and measuring cups)</b>	90A-90B, 90-93, 100A-100B, 100-103, 246I, 248A-248B, 248-250, 252A-252B, 252-255, 258A-258B, 258-259, 266A-266B, 266-269, 270A-270B, 270-271

### Standard 3: Numerical Operations and Estimation

Students shall compute fluently and make reasonable estimates

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Computational Fluency</b>	
<b>NO.3.6.1 Apply, with and without appropriate technology, algorithms with computational fluency to perform whole number operations (+, -, x, /)</b>	2I, 3, 16A-16B, 16-17, 18A-18B, 18-19, 24A-24B, 24-27, 28A-28B, 28-29, 30A-30B, 30-31, 32A-32B, 32-35
<b>NO.3.6.2 Develop and analyze algorithms for computing with fractions (including mixed numbers) and decimals and demonstrate, with and without technology, computational fluency in their use and justify the solution</b>	86A-86B, 86-89, 90A-90B, 90-93, 100A-100B, 100-103, 204A-204B, 204-205, 206A-206B, 206-209, 218A-218B, 218-219, 220A-220B, 220-223, 246I, 248A-248B, 248-250, 252A-252B, 252-255, 258A-258B, 258-259, 266A-266B, 266-269, 270A-270B, 270-271
<b>NO.3.6.3 Solve, with and without appropriate technology, multi-step problems using a variety of methods and tools (i.e., objects, mental computation, paper and pencil)</b>	36A-36B, 36-37, 224A-224B, 224-225
<b>Estimation</b>	
<b>NO.3.6.4 Estimate reasonable solutions to problem situations involving fractions and decimals (Ex: <math>7/8 + 12/13 \gg 2</math> and <math>423 \times 58 \gg 24</math>)</b>	82A-82B, 82-83, 216A-216B, 216-217, 256A-256B, 256-257
<b>Application Computation</b>	
<b>NO.3.6.5 Find and use factorization (tree diagram) including prime factorization of composite numbers (expanded and exponential notation) to determine the greatest common factor (GCF) and least common multiple (LCM)</b>	140I, 146A-146B, 146-149, 150A-150B, 150-151, 152A-152B, 152-153

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>NO.3.6.6 Use proportional reasoning and ratios to represent problem situations and determine the reasonableness of solutions with and without appropriate technology (Ex: unit rates)</b>	306A-306B, 306-309, 316A-316B, 316-317, 318A-318B, 318-321, 322A-322B, 322-323, 324A-324B, 324-325
<b>NO.3.6.7 Determine the percent of a number and solve related problems in real world situations (Ex. tip, sales tax, discounts, etc)</b>	367, 371, 373, 380A-380B, 380-383, 384A-384B, 384-385, 386A-386B, 386-387

**Strand: Algebra**

**Standard 4: Patterns, Relations and Functions**

**Students shall recognize, describe and develop patterns, relations and functions**

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Patterns, Relations and Functions</b>	
<b>A.4.6.1 Solve problems by finding the next term or missing term in a pattern or function table using real world situations</b>	36A-36B, 36-37, 212A-212B, 212-213, 444A-444B, 444-447
<b>A.4.6.2 Interpret and write an algebraic rule for a one-operation function table (Ex: <math>y=x+ 3</math>)</b>	444A-444B, 444-447



## Standard 5: Algebraic Representations

Students shall represent and analyze mathematical situations and structures using algebraic symbols

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Expressions, Equations and Inequalities</b>	
<b>A.5.6.1 Model, write and solve one-step equations by informal methods using manipulatives and appropriate technology</b>	48A-48B, 48-51, 112A-112B, 112-113, 116A-116B, 116-119, 276A-276B, 276-277, 430A-430B, 430-431
<b>A.5.6.2 Write simple algebraic expressions using appropriate operations (+, -, x, /) with one variable</b>	40A-40B, 40-43
<b>A.5.6.3 Evaluate algebraic expressions with one variable using appropriate properties and operations (+, -, x, /)</b>	40A-40B, 40-43, 44A-44B, 44-47, 274A-274B, 274-275

## Standard 6: Algebraic Models

Students shall develop and apply mathematical models to represent and understand quantitative relationships

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Algebraic Models and Relationships</b>	
<b>A.6.6.1 Complete, with and without appropriate technology, and interpret tables and line graphs that represent the relationship between two variables in quadrant I (Ex. time and distance)</b>	718A-718B, 718-721, 722A-722B, 724A-724B

## Standard 7: Analysis of Change

Students shall analyze change in various contexts

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
Analyze Change	
<b>A.7.6.1 Identify and compare situations with constant or varying rates of change</b> (Ex. a student's rate of growth each year is a varying rate, hourly wages is a constant rate)	638A-638B, 638-641

## Strand: Geometry

### Standard 8: Geometric Properties

Students shall analyze characteristics and properties of 2 and 3 dimensional geometric shapes and develop mathematical arguments about geometric relationships

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
Characteristics of Geometric Shapes	
<b>G.8.6.1 Identify three-dimensional geometric figures using models (rectangular prisms, cylinders, cones, pyramids and spheres)</b>	586A-586B, 586-589
<b>G.8.6.2 Investigate with manipulatives or grid paper what happens to the perimeter and area of a 2-dimensional shape when the dimensions are changed</b> (Ex. length of sides are doubled)	352J, 570A-570B, 570-571

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>G.8.6.3 Identify, describe, draw, and classify triangles as equilateral, isosceles, scalene, right, acute, obtuse, and equiangular</b>	496A-496B, 496-499
<b>G.8.6.4 Draw, label and determine relationships among the radius, diameter, center and circumference (e.g. radius is half the diameter) of a circle</b>	502A-502B, 502-503, 576A-576B, 576-579
<b>G.8.6.5 Identify similar figures and explore their properties</b>	506A-506B, 506-509

### **Standard 9: Transformation of Shapes**

**Students shall apply transformations and the use of symmetry to analyze mathematical situations**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Symmetry and Transformations</b>	
<b>G.9.6.1 Identify and describe line and rotational symmetry in two-dimensional shapes, patterns and designs</b>	514A-514B, 514-516
<b>G.9.6.2 Describe positions and orientations of shapes under transformation (translation, reflection and rotation) recognizing the size and shape do not change</b>	510A-510B, 510-511

### Standard 10: Coordinate Geometry

Students shall specify locations and describe spatial relationships using coordinate geometry and other representational systems

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Coordinate Geometry</b>	
<b>G.10.6.1 Use ordered pairs to plot points in Quadrant I</b>	440A-440B, 440-443
<b>G.10.6.2 Plot points that form the vertices of a geometric figure and draw, identify and classify the figure.</b>	719

### Standard 11: Visualization and Geometric Models

Students shall use visualization, spatial reasoning and geometric modeling

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Spatial Visualization and Models</b>	
<b>G.11.6.1 Identify two-dimensional patterns (nets) for three-dimensional solids, such as prisms, pyramids, cylinders, and cones</b>	586A-586B, 586-588

**Strand: Measurement**

**Standard 12: Physical Attributes**

**Students shall use attributes of measurement to describe and compare mathematical and real-world objects**

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Attributes and Tools</b>	
<b>M.12.6.1 Identify and select appropriate units and tools from both systems to measure (Ex. angles with degrees, distance with feet/meters)</b>	476A-476B, 476-479, 540, 542A-542B, 542-545, 546A-546B, 546-549, 550A-550B, 550-551
<b>M.12.6.2 Make conversions within the same measurement system in real world problems (Ex. hours to minutes to seconds, meters to cm, feet to inches, liters to milliliters, quarts to gallons, etc)</b>	476A-476B, 476-479, 540, 542A-542B, 542-545, 546A-546B, 546-549, 550A-550B, 550-551
<b>M.12.6.3 Compare and contrast the differences among linear units, square units, and cubic units</b>	564A-564B, 564-567, 568A-568B, 568-569, 570A-570B, 570-571, 572A-572B, 572-575, 576A-576B, 576-579, 580A-580B, 580-581, 590A-590B, 590-593, 594A-594B, 594-597
<b>M.12.6.4 Determine which unit of measure or measurement tool matches the context for a problem situation</b>	542A-542B, 542-545, 546A-546B, 546-548

## Standard 13: Systems of Measurement

Students shall identify and use units, systems and processes of measurement

Arkansas Mathematics	Scott Foresman – Addison Wesley Mathematics
<b>Attributes and Tools</b>	
<b>M.13.6.1 Solve real world problems involving one elapsed time, counting forward and backward (calendar and clock)</b>	554A-554B, 554-557
<b>M.13.6.2 Determine which unit of measure or measurement tool matches the context for a problem situation</b>	542A-542B, 542-545, 546A-546B, 546-548
<b>M.13.6.3 Draw and measure distance to the nearest mm and 1/8 inch accurately</b>	550A-550B, 550-551
<b>M.13.6.4 Establish and apply formulas to find area and perimeter of triangles, rectangles, and parallelograms</b>	540I, 564A-564B, 564-567, 568A-568B, 568-569, 572A-572B, 572-575
<b>M.13.6.5 Find the distance between two points on a number line</b>	418A-418B, 418-419
<b>M.13.6.6 Use estimation to check the reasonableness of measurements obtained from use of various instruments (including angle measures)</b>	476A-476B, 476-479, 552A-552B, 552-553

**Strand: Data Analysis and Probability**

**Standard 14: Data Representation**

Students shall formulate questions that can be addressed with data and collect, organize and display relevant data to answer them

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Collect, Organize and display data</b>	
<b>DAP.14.6.1 Formulate questions, design studies, and collect data about a characteristic shared by two populations or different characteristics within one population</b>	618I, 620A-620B, 620-623
<b>DAP.14.6.2 Collect data and select appropriate graphical representations to display the data including Venn diagrams</b>	89, 618I, 620A-620B, 620-623, 628A-628B, 628-631, 623A-523B, 623-624, 636A-636B, 636-637, 638A-638B, 638-641, 642A-642B, 642-644, 645-646, 648A-648B, 648-649, 650A-650B, 650-651
<b>DAP.14.6.3 Construct and interpret graphs, using correct scale, including line graphs and double-bar graphs</b>	89, 618I, 620A-620B, 620-623, 628A-628B, 628-631, 623A-523B, 623-624, 636A-636B, 636-637, 638A-638B, 638-641, 642A-642B, 642-644, 645-646, 648A-648B, 648-649, 650A-650B, 650-651

**Standard 15: Data Analysis**

Students shall select and use appropriate statistical methods to analyze data

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Data Analysis</b>	
<b>DAP.15.6.1 Interpret graphs such as double line graphs and circle graphs</b>	89, 618I, 620A-620B, 620-623, 628A-628B, 628-631, 623A-523B, 623-624, 636A-636B, 636-637, 638A-638B, 638-641, 642A-642B, 642-644, 645-646, 648A-648B, 648-649, 650A-650B, 650-651

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>DAP.15.6.2 Compare and interpret information provided by measures of central tendencies (mean, median and mode) and measures of spread (range)</b>	624A-624B, 624-627

**Standard 16: Inferences and Predictions**

Students shall develop and evaluate inferences and predictions that are based on data

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Data Analysis</b>	
<b>DAP.16.6.1 Use observations about differences in data to make justifiable inferences</b>	638-639

**Standard 17: Probability**

Students shall understand and apply basic concepts of probability

<b>Arkansas Mathematics</b>	<b>Scott Foresman – Addison Wesley Mathematics</b>
<b>Data Analysis</b>	
<b>DAP.17.6.1 Distinguish between theoretical and experimental probability</b>	664A-664B, 664-667