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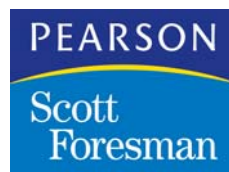
**SCOTT FORESMAN • ADDISON WESLEY**

**Mathematics**

to the

# **Idaho Achievement Standards for Mathematics**

**Grades K - 6**



M/M-110

## 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 Idaho Achievement Standards for Mathematics. Correlation page references are to the Teacher Edition, which contains facsimile Pupil 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  
Idaho Achievement Standards for Mathematics  
Kindergarten**

**257. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS.**

Rationale: An understanding of numbers and how they are used is necessary in the everyday world. Computational skills and procedures should be developed in context so the learner perceives them as tools for solving problems.

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
01. <b>Understand and use numbers.</b>	<b>a. Demonstrate knowledge of our numeration system by counting in a variety of ways.</b>	14, 51I-51J, 53A-53B, 53-54, 57A-57B, 57-58, 60, 62, 64, 69A-69B, 69-70, 77A-77B, 77-78, 79A-79B, 79-80, 83A-83B, 83-84, 90, 91A-91B, 91-92, 93A-93B, 93-94, 98, 101I-101J, 103A-103B, 103-104, 113A-113B, 113-114, 115A-115B, 115-116, 127A-127B, 127-128, 140, 176, 287A-287B, 287-288, 289A-289B, 289-290, 291A-291B, 291-292, 293A-293B, 293-294, 295A-295B, 295-296, 298, 299-300
	<b>b. Demonstrate an understanding of the verbal, symbolic, and physical representations of a number.</b>	40, 51I-51J, 53A-53B, 53-54, 55A-55B, 55-56, 57A-57B, 57-58, 59A-59B, 59-60, 61A-61B, 61-62, 65A-65B, 65-66, 71-72, 77A-77B, 77-78, 79A-79B, 79-80, 81A-81B, 81-82, 83A-83B, 83-84, 85A-85B, 85-86, 96, 105A-105B, 105-106, 107A-107B, 107-108, 109A-109B, 109-110, 111A-111B, 111-112, 115A-115B, 115-116, 117A-117B, 117-118, 210, 246
	<b>c. Identify a penny as a value of money.</b>	179A-179B, 179-180, 189A-189B, 189-190, 243J, 257A-257B, 257-258, 260, 263J, 277A-277B, 277-278

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
02. <b>Perform computations accurately.</b>	<b>a. Explore the concepts of addition and subtraction using concrete objects.</b>	223I-223J, 225A-225B, 225-226, 227A-227B, 229A-229B, 231A-231B, 235A-235B, 237A-237B, 243I-243J, 245A-245B, 247A-247B, 251A-251B, 253B, 255A-255B, 263I-263J, 265A-265B, 267A-267B, 269A-269B, 271A-271B, 272, 273A-273B, 275A-275B, 276
	<b>b. Use appropriate vocabulary.</b>	245A-245B, 245, 247A, 247, 251A, 251, 253A-253B, 253, 255A, 255, 263I-263J, 265A, 265, 267A-267B, 267, 269A, 269, 271A-271B, 271, 273A, 273, 275A, 275
03. <b>Estimate and judge reasonableness of results.</b>	<b>a Use estimation to identify a number of objects.</b>	51J, 119A-119B, 119-120, 124, 190

**258. MATHEMATICAL REASONING AND PROBLEM SOLVING.**

Rationale: these processes are essential to all mathematics and must be incorporated in all other mathematics standards.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Understand and use a variety of problem-solving skills.</b>	<b>a. Select strategies appropriate to solve a problem.</b>	6, 25I-25J, 51I-51J, 75I-75J, 101I-101J, 131I-131J, 155A-155B, 185A-185B, 185-186, 217A-217B, 217-218, 223I, 243I-243J, 249A-249B, 259A-259B, 263I-263J, 279A-279B, 279-280, 282
02. <b>Use reasoning skills to recognize problems and express them mathematically.</b>	<b>a. Use concrete objects to identify and show a solution to problems.</b>	11-1J, 19A-19B, 25I, 40, 43B, 51J, 58, 67A-67B, 70, 71A-71B, 75I-75J, 95A-95B, 97A-97B, 101I-101J, 108, 131I-131J, 146, 152, 154, 155A-155B, 162, 185A-185B, 186, 195I-195J, 217A-217B, 217-218, 223I-223J, 233A-233B, 239A-239B, 243I-243J, 254, 259A-259B, 263I-263J, 266, 281B, 299B

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
03. <b>Apply appropriate technology and models to find solutions to problems.</b>	<b>a. Select appropriate models to represent mathematical ideas.</b>	6, 25I, 43A-43B, 51I, 75I-75J, 185A-185B, 185-186, 233A-233B, 259A-259B
04. <b>Communicate results using appropriate terminology and methods.</b>	<b>a. Use appropriate vocabulary to communicate mathematical information.</b>	1I-1J, 19A-19B, 25I-25J, 51I-51J, 67A, 75I-75J, 95A-95B, 95-96, 101I-101J, 131I-131J, 159I-159J, 185A, 195I-195J, 217A, 219A-219B, 223I-223J, 233A-233B, 239A, 243I-243J, 259A-259B, 263I-263J, 279A-279B, 281A, 299A

**259. CONCEPTS AND PRINCIPLES OF MEASUREMENT.**

Rationale: The first step in scientific investigation is to understand the measurable attributes of objects.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Understand and use U.S. customary and metric measurements.</b>	<b>a. Explore the use of standard and non-standard tools for measuring time, length, volume, weight, and temperature.</b>	139A-139B, 139-140, 145A-145B, 151A-151B, 153A-153B, 155A-155B, 159J, 161A-161B, 163A, 165A, 167A-167B, 167-168, 170, 173A-173B, 173-174, 175A-175B, 178, 191A-191B, 191, 290
	<b>b. Apply estimation of measurement to real-world and content problems using actual measuring devices.</b>	141A-141B, 141-142, 147A-147B, 147-148, 151A-151B, 151-152
	<b>c. Use appropriate vocabulary.</b>	139A, 139, 141A-141B, 141, 145A, 145, 149A-149B, 149, 153A, 153, 161A, 161-162, 163A, 165A, 165-166, 167A-167B, 167, 173A-173B, 173, 175A, 175

**260. CONCEPTS AND LANGUAGE OF ALGEBRA.**

Rationale: Algebra is the language of mathematics and science. Through the use of variables and operations, algebra allows students to form abstract models from contextual information.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Use algebraic symbolism as a tool to represent mathematical relationships.</b>	<b>a. Compare sets of objects using vocabulary (less than, greater than, same as).</b>	25I, 27A-27B, 27-28, 32, 44, 63A-63B, 63-64, 68, 87A-87B, 87-88, 89A-89B, 89-90, 94, 97A-97B, 97, 120, 121A-121B, 121-122, 162, 202, 236
	<b>b. Explore the relationship between addition and subtraction.</b>	279A-279B, 279-280

**261. CONCEPTS AND PRINCIPLES OF GEOMETRY.**

Rationale: The study of geometry helps students represent and make sense of the world by discovering relationships and developing spatial sense.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Apply concepts of size, shape, and spatial relationships.</b>	<b>a. Recognize, name, build, draw, compare, and sort two- and three-dimensional shapes.</b>	1J, 15A-15B, 15-16, 17A-17B, 17-18, 19A-19B, 28, 66, 104, 148, 172, 195I, 197A-197B, 197-198, 199A-199B, 199-200, 201A-201B, 201-202, 203A-203B, 203-204, 205A-205B, 205-206, 208, 209A-209B, 209-210, 219, 248, 270
	<b>b. Recognize and create shapes that have symmetry.</b>	211A-211B, 211-212
	<b>c. Explore slides, flips, and turns.</b>	195J, 207A-207B, 207-208, 226
	<b>d. Understand and apply appropriate vocabulary for position and size.</b>	3A-3B, 3-4, 5A-5B, 5-6, 7A-7B, 7-8, 21A-21B, 21, 38, 131I-131J, 133A-133B, 133-134, 135A-135B, 135-136, 137A-137B, 137-138
02. <b>Apply graphing in two dimensions.</b>	<b>a. Apply ideas about direction and distance.</b>	9A-9B, 9-10

**262. DATA ANALYSIS, PROBABILITY, AND STATISTICS.**

Rationale: With society's expanding use of data for prediction and decision making, it is important that students develop an understanding of the concepts and processes used in analyzing data.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Understand data analysis.</b>	<b>a. Interpret information from real objects and simple pictographs.</b>	29A-29B, 29-30, 31A-31B, 31-32, 47A-47B, 47, 56, 67A-67B, 67-68, 122, 238, 300
	<b>b. Understand and use appropriate vocabulary.</b>	29A, 29, 31A, 31, 67A, 67
02. <b>Collect, organize, and display data.</b>	<b>a. Create a graph using real objects or pictorial representations.</b>	29A-29B, 29-30, 31A-31B, 31-32, 47A-47B, 67A-67B, 67-68
03. <b>Understand basic concepts of probability.</b>	<b>a. Predict and perform results of simple probability experiments.</b>	118, 125A-125B, 125-126, 136, 182
04. <b>Make predictions or decisions based on data.</b>	<b>a. Make predictions or decisions based on probable results or past experiences.</b>	125A-125B

**263. FUNCTIONS AND MATHEMATICAL MODELS.**

Rationale: One of the central themes of mathematics is the study of patterns, relationships, and functions. Exploring patterns helps students develop mathematical power.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Understand the concept of functions.</b>	<b>a. Replicate and extend patterns and identify the rule (function) that creates the pattern.</b>	18, 25J, 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, 80, 95A-95B, 95-96, 98, 126, 134, 164, 192, 218, 292, 297A-297B, 297-298



Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
(continued)	<b>b. Sort and classify objects by attributes.</b>	11-1J, 11A-11B, 11-12, 13A-13B, 13-14, 22
	<b>c. Understand and use appropriate vocabulary.</b>	11A, 13A, 35A, 35

**Scott Foresman – Addison Wesley Mathematics  
to the  
Idaho Achievement Standards for Mathematics**

**Grade One**

**267. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS.**

Rationale: An understanding of numbers and how they are used is necessary in the everyday world. Computational skill and procedures should be developed in context so the learner perceives them as tools for solving problems.

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
01. <b>Understand and use numbers.</b>	<b>a. Demonstrate knowledge of our numeration system by counting in a variety of ways.</b>	15A, 239I, 243A-243B, 243-244, 245A-245B, 245-246, 255A-255B, 255-256, 257A-257B, 257-258, 267A-267B, 267-268, 269, 281A-281B, 281-282, 301A, 319-320
	<b>b. Read, write, order, and compare whole numbers to 100.</b>	31A-31B, 31-32, 187A, 239J, 249A, 263A-263B, 263-264, 279J, 295A-295B, 295-296, 299A-299B, 299-300, 301A-301B, 301-302
	<b>c. Demonstrate the knowledge of place value through 99.</b>	241A-241B, 241-242, 247A-247B, 247-248, 279I, 281A-281B, 281-282, 283A-283B, 283-284, 285A-285B, 285-286, 287A-287B, 287-288, 319B, 421A-421B, 421-422
	<b>d. Identify and state the value of pennies, nickels, and dimes.</b>	331A-331B, 331-332, 333A-333B, 333-334

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
02. <b>Perform computations accurately.</b>	a. <b>Demonstrate proficiency of addition up to 10 and an understanding of subtraction from 9.</b>	45A-45B, 47A-47B, 47-48, 49A-49B, 49-50, 51A-51B, 51-52, 61A-61B, 61-62, 63A-63B, 63-64, 67A-67B, 67-68, 75A-75B, 75-76, 77A-77B, 79-80, 89I-89J, 91A-91B, 91-92, 95A-95B, 95-96, 97A-97B, 97-98, 103A-103B, 103-104, 105A-105B, 105-106, 107A-107B, 107-108, 113A, 123I-123J, 125A-125B, 125-126, 127A-127B, 127-128, 145A, 145A-145B, 157A, 167A, 169A, 171A, 181A, 183A, 189A, 193A, 207A, 215A, 221A, 225A, 227A, 245A, 261A, 281A, 283A, 291A, 295A, 317A, 331A, 335A, 339A, 343A, 371A, 385A, 395A, 401A, 459A, 471A, 473A
	b. <b>Use appropriate vocabulary.</b>	47A, 47, 49A-49B, 49, 63A-63B, 63, 65A-65B, 65, 91A, 97A, 97, 103A-103B, 103, 123I-123J, 125A-125B, 125
03. <b>Estimate and judge reasonableness of results.</b>	a. <b>Use estimation to identify a number of objects.</b>	249A-249B, 249-250, 269B, 467A-467B
	b. <b>Use estimation to predict computation results.</b>	351A-351B, 351-352
	c. <b>Evaluate the reasonableness of an answer.</b>	18, 57, 62, 133, 379A, 379-380, 444, 467, 474
	d. <b>Use appropriate vocabulary.</b>	249A, 249

**268. MATHEMATICAL REASONING AND PROBLEM SOLVING.**

Rationale: These processes are essential to all mathematics and must be incorporated in all other mathematics standards.

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
01. <b>Understand and use a variety of problem-solving skills.</b>	a. <b>Select strategies appropriate to solve a problem.</b>	11A, 13A, 43I-43J, 45A-45B, 45-46, 47A, 57A, 89I-89J, 111A-111B, 113A-113B, 113-114, 123I-123J, 145A, 155I-155J, 159A, 161A, 205A, 215A, 239I, 269A-269B, 279I-279J, 329I-329J, 351A-351B, 389A, 403A, 415I-415J, 425A-425B, 425, 443A-443B, 443
	b. <b>Select and use appropriate operations.</b>	43J, 71A-71B, 71-72, 79A, 89J, 107A, 129A, 137A, 143A-143B, 143-144, 209A, 247A, 255A, 303A, 333A
02. <b>Use reasoning skills to recognize problems and express them mathematically.</b>	a. <b>Draw a picture and generate a number sentence from a problem-solving situation.</b>	57B, 66, 79B, 111A, 111-112, 143A
03. <b>Apply appropriate technology and models to find solutions to problems.</b>	a. <b>Select appropriate models to represent mathematical ideas.</b>	21A-21B, 21-22, 43I-43J, 99A-99B, 123I-123J, 125A, 133A-133B, 155J, 191A-191B, 193B, 215A-215B, 229A-229B, 279I, 291A-291B, 291-292, 303A-303B, 363J, 415I, 465A-465B, 477A-477B
04. <b>Communicate results using appropriate terminology and methods.</b>	a. <b>Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to communicate mathematical information.</b>	<p><i>This objective is met in every lesson of the Scott Foresman-Addison Wesley Mathematics series. You will find numerous examples in the "Investigation" activities at the beginning of each chapter and in the "Journal Idea" accompanying each lesson.</i></p> <p>11-1J, 4, 76, 89I-89J, 158, 177A-177B, 177-178, 203I-203J, 223A-223B, 251A-251B, 261A-261B, 261-262, 392, 415I-415J, 431A-431B, 431-432, 481A-481B, 481-482</p>

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
	<b>b. Use appropriate vocabulary to communicate mathematical information.</b>	11-1J, 43I-43J, 57A, 89I-89J, 123I-123J, 133A, 143A, 145A, 155I-155J, 191A-191B, 191, 193A, 203I-203J, 215A, 229A, 239I-239J, 269A, 291A, 329I-329J, 363I-363J, 369A-369B, 405A-405B, 405, 415I-415J

**269. CONCEPTS AND PRINCIPLES OF MEASUREMENT.**  
Rationale: The first step in scientific investigation is to understand the measurable attributes of objects.

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
01. <b>Understand and use U.S. customary and metric measurements.</b>	<b>a. Explore the use of standard and non-standard tools for measuring time, length, volume, weight, and temperature.</b>	5A, 203I-203J, 207A-207B, 209A-209B, 211A-211B, 369-370, 371A-371B, 371-372, 373A-373B, 373-374, 375A-375B, 375-376, 383-384, 385A-385B, 387A-387B, 389A-389B, 389-390, 391A-391B, 393B, 395A-395B, 397A-397B, 397-398, 405A-405B
	<b>b. Apply estimation of measurement to real-world and content problems using actual measuring devices.</b>	205A-205B, 221A-221B, 365A-365B, 365-366, 371A-371B, 371-372, 373A-373B, 373-374, 375-376, 383A-383B, 383-384, 389A, 389-390
	<b>c. Use a calendar to explore measurement of time.</b>	17A, 51A, 225A-225B, 225-226, 227A-227B, 227-228, 229A, 265A
	<b>d. Use appropriate vocabulary.</b>	205A, 205, 207A, 207, 211A, 211, 225A-225B, 225, 227A, 227, 365A-365B, 365, 371A-371B, 371, 373A-373B, 373, 375A, 375, 383A, 383, 385A, 385, 387A, 387, 391A, 391, 393A-393B, 393, 395A-395

**270. CONCEPTS AND LANGUAGE OF ALGEBRA.**

Rationale: Algebra is the language of mathematics and science. Through the use of variables and operations, algebra allows students to form abstract models from contextual information.

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
01. Use algebraic symbolism as a tool to represent mathematical relationships.	a. Represent vertical notation in horizontal form.	53A-53B, 53-54, 69A-69B, 69-70
	b. Write a number sentence given an addition or subtraction problem.	57A-57B, 57-58, 65A-65B, 65-66, 77B, 77-78, 99-100, 133A-133B, 133-134, 139A, 141A, 143A, 143-144, 145-146, 193, 229, 285A, 317B, 383A, 387A, 483
	c. Compare numbers using vocabulary (less than, greater than, equal to, more, less, same, fewer, bigger, smaller).	25A-25B, 25-26, 27A-27B, 27-28, 29A-29B, 29-30, 33A, 103A, 297A-297B, 297-298, 301-302, 377A
	d. Explore the relationship between addition and subtraction and demonstrate reversal of operations.	129A-129B, 129-130, 137A-137B, 137-138, 139A-139B, 139-140, 141A-141B, 141-142, 415J, 435A-435B, 435-436, 437A-437B, 437-438, 439A-439B, 439-440
02. Evaluate algebraic expressions.	a. Explore and use the commutative property of addition.	1J, 93A-93B, 93-94, 139A-139B, 139-140, 415J, 437A-437B, 437-438

**271. CONCEPTS AND PRINCIPLES OF GEOMETRY.**

Rationale: The study of geometry helps students represent and make sense of the world by discovering relationships and developing spatial sense.

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
<p>01. <b>Apply concepts of size, shape, and spatial relationships.</b></p>	<p><b>a. Recognize, name, build, draw, compare, and sort two- and three-dimensional shapes.</b></p>	<p>7A, 31A, 49A, 75A, 111A, 133A, 155I, 157A-157B, 157-158, 159A-159B, 159-160, 161A-161B, 161-162, 165A-165B, 165-166, 167A-167B, 167-168, 169A-169B, 169-170, 173A, 177A, 193, 211A, 269A, 307A, 347A, 373A, 477A</p>
	<p><b>b. Recognize and create shapes that have symmetry.</b></p>	<p>171A-171B, 171-172, 194</p>
	<p><b>c. Explore slides, flips, and turns.</b></p>	<p>173A-173B, 173-174, 311A</p>
	<p><b>d. Understand appropriate vocabulary.</b></p>	<p>157A-157B, 157, 159A, 159, 165A, 165, 167A-165B, 167, 169A, 169, 171A, 171, 173A, 173</p>
<p>02. <b>Apply graphing in two dimensions.</b></p>	<p><b>a. Apply ideas about direction and distance.</b></p>	<p>315A-315B, 315-316, 317A-317B, 317-318, 437A</p>

**272. DATA ANALYSIS, PROBABILITY, AND STATISTICS.**

Rationale: With society's expanding use of data for prediction and decision making, it is important that students develop an understanding of the concepts and processes used in analyzing data.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Understand data analysis.</b>	<b>a. Interpret information found in simple graphs to answer questions.</b>	29A, 65A, 97A, 143A, 251-252, 267A, 345A
	<b>b. Understand and use appropriate vocabulary.</b>	251A, 251, 309A, 309, 311A, 311
02. <b>Collect, organize, and display data.</b>	<b>a. Gather and display data in graphs in order to answer a question.</b>	69A, 71A, 219A, 251A-251B, 309A-309B, 309-310, 311A-311B, 311-312, 319A, 483A
03. <b>Understand basic concepts of probability.</b>	<b>a. Predict, perform, and record results of simple probability experiments.</b>	363J, 401A, 403A-403B, 403-404
04. <b>Make predictions or decisions based on data.</b>	<b>a. Make predictions or decisions based on probable results or past experiences.</b>	363J, 401A-401B, 401-402, 403A-403B, 403-404

**273. FUNCTIONS AND MATHEMATICAL MODELS.**

Rationale: One of the central themes of mathematics is the study of patterns, relationships, and functions. Exploring patterns helps students develop mathematical power.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Understand the concept of functions.</b>	<b>a. Extend patterns and identify the rule (function) that creates the pattern.</b>	11, 3A-3B, 3-4, 5A-5B, 5-6, 7A-7B, 7-8, 33A-33B, 33, 91A, 93A, 194, 243A, 255A-255B, 255-256, 261A-261B, 261-262, 270, 299A, 319A, 353A, 419A



Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
	<b>b. Sort and classify objects by more than one attribute.</b>	155I, 307B
	<b>c. Understand and use appropriate vocabulary.</b>	307A-307B, 307

**Scott Foresman – Addison Wesley Mathematics  
to the  
Idaho Achievement Standards for Mathematics  
Grade Two**

**277. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS.**

Rationale: An understanding of numbers and how they are used is necessary in the everyday world. Computational skills and procedures should be developed in context so the learner perceives them as tools for solving problems.

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
01. <b>Understand and use numbers.</b>	<b>a. Demonstrate knowledge of our numeration system by counting a variety of ways.</b>	79I, 81A-81B, 81-82, 99A-99B, 99-100, 103A-103B, 103-104, 391A-391B, 391-392, 413A-413B, 413-414, 467A-467B
	<b>b. Read, write, order, and compare whole numbers to 1,000.</b>	85A-85B, 85-86, 95A-95B, 95-96, 97A-97B, 97-98, 99A, 163-164, 389J, 399A, 407A-407B, 407-408, 409A-409B, 409-410, 415B, 415, 433A
	<b>c. Demonstrate the knowledge of place value through 999.</b>	81A-81B, 81-82, 83A-83B, 83-84, 105A-105B, 105-106, 137A, 265A, 271A, 389I-389J, 393A-393B, 393-394, 395A-395B, 395-396, 416
	<b>d. Determine, by counting, the value of a collection of pennies, nickels, dimes, and quarters, up to \$1.00.</b>	79J, 109A-109B, 109-110, 111A-111B, 111-112, 113A-113B, 113-114, 115A-115B, 115-116, 122, 123A-123B
	<b>e. Explore decimals using money through hundredths.</b>	121A-121B, 483A
	<b>f. Understand and apply appropriate vocabulary.</b>	81A, 81, 85A, 85, 95A, 95, 97A, 97, 99A, 99, 103A, 103, 109A, 109, 111A-111B, 111, 113A, 113, 121A, 391A, 391, 393A-393B, 393, 395A, 395, 407A, 407, 409A-409B, 409, 413A, 413

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
02. <b>Perform computations accurately.</b>	<b>a. Demonstrate proficiency with addition and subtraction facts through 18.</b>	3A-3B, 3-4, 5A-5B, 5-6, 9A, 13A-13B, 13-14, 19A, 25A-25B, 25-26, 29A-29B, 29-30, 31A, 43A-43B, 43-44, 45A-45B, 45-46, 47A-47B, 47-48, 51A-51B, 51-52, 53A-53B, 53-54, 61A-61B, 61-62, 67-68, 69A-69B, 83A, 103A, 105A, 405A
	<b>b. Add whole numbers with and without regrouping through 99.</b>	121A, 133I, 135A-135B, 135-136, 137A-137B, 137-138, 139A-139B, 139-140, 155A-155B, 155-156, 159A, 173I-173J, 175A-175B, 175-176, 177A-177B, 177-178, 179A-179B, 179-180, 181A-181B, 181-182, 185A-185B, 185-186, 187A-187B, 187-188, 189A-189B, 189-190, 199A-199B, 247A, 249A, 251A, 277A, 279A, 291A
	<b>c. Add a series of one-digit addends.</b>	41J, 49A-49B, 49-50, 359A
	<b>d. Explore double-digit subtraction of whole numbers with regrouping through 99.</b>	133J, 141A, 145A-145B, 145-146, 147A-147B, 147-148, 209I-209J, 211A-211B, 211-212, 213A-213B, 213-214, 215A-215B, 215-216, 217A-217B, 217-218, 225A-225B, 225, 227A, 235A, 257A, 273A, 293A, 299A, 315A, 319A, 341A, 351A
	<b>e. Use appropriate vocabulary.</b>	3A, 35A-5B, 5, 13A-13B, 13, 17A, 17, 43A, 43, 45A, 45, 135A, 135, 137A, 137, 175A, 175, 179A, 179, 225A-225B, 225
03. <b>Estimate and judge reasonableness of results.</b>	<b>a. Use estimation to predict computation results.</b>	133I, 141A-141B, 141-142, 149A-149B, 149-150, 191A-191B, 191-192, 197A-197B, 197-198, 415A, 429A-429B, 429-430, 445A-445B, 445-446, 453A-453B, 453-454

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
	<b>b. Evaluate the reasonableness of an answer.</b>	161A-161B, 161-162, 180, 214, 229A-229B, 229-230
	<b>c. Use appropriate vocabulary.</b>	141A, 141, 149A, 149, 191A, 191, 211A, 211, 229A, 229, 429A, 429

**278. MATHEMATICAL REASONING AND PROBLEM SOLVING.**

Rationale: These processes are essential to all mathematics and must be incorporated in all other mathematics standards.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Understand and use a variety of problem-solving skills.</b>	<b>a. Select strategies appropriate to solve a problem.</b>	11-1J, 9B, 27A, 41I-41J, 45A, 65A, 67A-67B, 79I-79J, 133I-133J, 137-138, 139-140, 145-146, 147A, 147-148, 159A-159B, 159-160, 173I-173J, 177A, 193A-193B, 193-194, 209I-209J, 231A-231B, 231-232, 233A-233B, 233-234, 236, 279-280, 289J, 351A-351B, 351-352, 365A, 389I-389J, 425I-425J, 465I-465J
	<b>b. Select and use appropriate operations.</b>	19A-19B, 19-20, 23A, 49A, 67A, 97A, 113A, 211A, 221A-221B, 221-222, 269A, 325A, 351A, 363A, 369A, 377A-377B, 377-378, 391A, 401A, 407A, 415A, 473A, 487-488, 489
02. <b>Use reasoning skills to recognize problems and express them mathematically.</b>	<b>a. Generate a number sentence from a problem-solving situation.</b>	1I, 9A-9B, 9-10, 17A-17B, 17-18, 19-20, 31A-31B, 31-32, 57A-57B, 57-58, 69-70, 135A, 199-200, 221A-221B, 221-222, 235, 275A, 279, 330, 351A, 355A, 377-378, 469A-469B, 485A-485B, 485-486, 487A-487B, 489-490

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
03. <b>Apply appropriate technology and models to find solutions to problems.</b>	<b>a. Select appropriate models to represent mathematical ideas.</b>	1J, 137A-137B, 139A-139B, 145A-145B, 147A-147B, 175A-175B, 209J, 339J, 389I, 393B, 425I-425J, 431A-431B, 431-432, 447A-447B, 447-448, 465J, 471A-471B
04. <b>Communicate results using appropriate terminology and methods.</b>	<b>a. Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to communicate mathematical information.</b>	<i>This objective is met in every lesson of the Scott Foresman-Addison Wesley Mathematics series. You will find numerous examples in the "Investigation" activities at the beginning of each chapter and in the "Journal Idea" accompanying each lesson.</i>  1I-1J, 4, 89A-89B, 89-90, 163A, 193A, 197A, 215A, 245I-245J, 289J, 311A-311B, 311-312, 328, 339I-339J, 439A-439B, 439, 479A-479B, 479-480
	<b>b. Use appropriate vocabulary to communicate mathematical information.</b>	1I-1J, 9A, 9, 19A-19B, 19, 41I-41J, 57A, 57, 67A-67B, 79I-79J, 89A, 89, 133I-133J, 155A-155B, 155, 173I-173J, 209I-209J, 221A, 221, 233A, 233, 245I-245J, 265A-265B, 266, 289I-289J, 339I-339J, 351A, 351, 389I-389J, 425I-425J, 431A-431B, 431, 465I-465J, 471A, 471

### **279. CONCEPTS AND PRINCIPLES OF MEASUREMENT.**

Rationale: The first step in scientific investigation is to understand the measurable attributes of objects.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Understand and use U.S. customary and metric measurements.</b>	<b>a. Explore the use of standard and non-standard tools for measuring time, length, volume, weight, and temperature.</b>	13A, 295A, 299A-299B, 299-300, 303A, 339I, 341A-341B, 341-342, 343A-343B, 343-344, 345A-345B, 345-346, 347A-347B, 347-348, 359A-359B, 363A-363B, 363, 365A, 367A, 369A-369B, 369-370

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
	<b>b. Apply estimation of measurement to real-world and content problems using actual measuring devices.</b>	297B, 343A-343B, 343-344, 345A-345B, 345-346, 347-348, 353-354, 357A-357B, 363A, 363, 379-380
	<b>c. Tell time using both digital and analog clocks to the quarter hour.</b>	161A, 291A-291B, 291-292, 293A-293B, 293-294, 295A-295B, 295-296, 301A, 329A-329B, 329-330
	<b>d. Explore the relationship among units of time.</b>	289I, 297A-297B, 297-298, 305A-305B, 305-306
	<b>e. Use appropriate vocabulary.</b>	291A, 291, 293A, 293, 295A, 295, 301A-301B, 301, 305A, 305, 341A, 341, 343A, 343, 345A, 345, 347A-347B, 347-348, 353A-353B, 353, 355A-355B, 355, 357A, 357, 359A-359B, 359, 363A, 363, 365A, 365, 367A, 367, 369A, 369

#### **280. CONCEPTS AND LANGUAGE OF ALGEBRA.**

Rationale: Algebra is the language of mathematics and science. Through the use of variables and operations, algebra allows students to form abstract models from contextual information.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Use algebraic symbolism as a tool to represent mathematical relationships.</b>	<b>a. Represent vertical notation in horizontal form.</b>	435A-435B, 435-436
	<b>b. Write a number sentence given an addition or subtraction problem.</b>	1I, 9A-9B, 9-10, 17A-17B, 17-18, 19-20, 57-58, 69-70, 135A, 199-200, 221A-221B, 221-222, 235, 275A, 280, 330, 355A, 377-378
	<b>c. Compare numbers using vocabulary (less than, greater than, equal to) and symbols (&lt;, &gt;, =).</b>	15A-15B, 15-16, 91A-91B, 91-92, 105A-105B, 105-106, 115A-115B, 115-116, 323A, 399A-399B, 399-400, 416

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
	<b>d. Understand the relationship between addition and subtraction and demonstrate reversal of operations.</b>	27A-27B, 27-28, 63A-63B, 63-64, 65A-65B, 65-66, 227A-227B, 227-228, 235B
02. <b>Evaluate algebraic expressions.</b>	<b>a. Explore and use the commutative property of addition.</b>	23A-23B, 23-24, 27A-27B, 27-28, 139B

### 281. CONCEPTS AND PRINCIPLES OF GEOMETRY.

Rationale: The study of geometry helps students represent and make sense of the world by discovering relationships and developing spatial sense.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Apply concepts of size, shape, and spatial relationships.</b>	<b>a. Recognize, name, build, draw, compare, and sort two- and three-dimensional shapes.</b>	51A, 57A, 155A, 245I, 247A-247B, 247-248, 249A-249B, 249-250, 251A-251B, 251-252, 255A-255B, 255-256, 257A-257B, 257-258, 259A, 261A, 265A-265B, 265-266, 313A, 379A, 475A
	<b>b. Recognize and create shapes that have symmetry.</b>	261A-261B, 261-262, 279B, 286, 455A
	<b>c. Explore slides, flips, and turns.</b>	259A-259B, 259-260, 279B
	<b>d. Understand appropriate vocabulary.</b>	247A, 247, 249A-249B, 249, 251A, 251, 255A-255B, 255, 257A, 257, 259A-259B, 259, 261A, 261
02. <b>Apply graphing in two dimensions.</b>	<b>a. Apply ideas about direction and distance.</b>	325A-325B, 325-326

**282. DATA ANALYSIS, PROBABILITY, AND STATISTICS.**

Rationale: With society's expanding use of data for prediction and decision making, it is important that students develop an understanding of the concepts and processes used in analyzing data.

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
01. <b>Understand data analysis.</b>	<b>a. Interpret information found in simple tables, charts, and graphs.</b>	17A, 63A, 89A, 119A, 157A, 279A, 314, 315, 319B, 319-320, 321, 323-324, 327-328, 375A, 395A, 405A-405B, 405-406, 427A, 439A-439B, 439-440
	<b>b. Understand and use appropriate vocabulary.</b>	313A-313B, 313, 315A, 315, 319A, 319, 321A, 321, 323A, 323, 405A, 405
02. <b>Collect, organize, and display data.</b>	<b>a. Gather and display data in tables, charts, and graphs in order to answer a question.</b>	217A, 289J, 313A-313B, 313, 315A-315B, 316, 319A, 319, 321A-321B, 322, 323A-323B, 327A-327B
03. <b>Understand basic concepts of probability.</b>	<b>a. Predict, perform, and record results of simple probability experiments.</b>	339J, 373A-373B, 373, 375A-375B, 375
04. <b>Make predictions or decisions based on data.</b>	<b>a. Make predictions or decisions based on probable results or past experiences.</b>	373A-373B, 373-374, 375A-375B, 375-376, 377A



**283. FUNCTIONS AND MATHEMATICAL MODELS.**

Rationale: One of the central themes of mathematics is the study of patterns, relationships, and functions. Exploring patterns helps students develop mathematical power.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Understand the concept of functions.</b>	<b>a. Extend patterns and identify the rule (function) that creates the pattern.</b>	91A, 95A, 99A-99B, 99-100, 157A-157B, 157-158, 229A, 231A, 297A, 409A, 413A-413B, 413-414, 431A
	<b>b. Sort and classify objects by more than one attribute.</b>	315A-315B, 316
	<b>c. Understand and use appropriate vocabulary.</b>	99A, 99, 157A, 157, 315A, 315, 413A, 413

**Scott Foresman – Addison Wesley Mathematics  
to the  
Idaho Achievement Standards for Mathematics  
Grade Three**

**286. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS.**

Rationale: An understanding of numbers and how they are used is necessary in the everyday world. Computational skills and procedures should be developed in context so the learner perceives them as tools for solving problems.

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
01. <b>Understand and use numbers.</b>	<b>a. Read, write, order, and compare whole numbers to 10,000.</b>	4A-4B, 4-5, 10A-10B, 10-11, 12A-12B, 12-13, 18A-18B, 18-21, 22A-22B, 22-23, 28A-28B, 28-31, 45, 104-105, 162A, 292A, 542, 572A
	<b>b. Demonstrate the knowledge of place value through 9,999.</b>	2I-2J, 6A-6B, 6-7, 8A-8B, 8-9, 44, 148A, 168A
	<b>c. Determine, by counting, the value of a collection of bills and coins up to \$10.00.</b>	36A-36B, 36-39, 41, 43, 46-47, 49, 53
	<b>d. Use concrete materials to recognize and represent commonly used fractions.</b>	260A, 496I, 498A-498B, 498, 502A-502B, 504A-504B, 504, 506A-506B, 510A-510B, 516A-516B, 518A-518B, 522A-522B, 522, 542A, 564A-564B, 710B
	<b>e. Explore decimals using money through hundredths.</b>	124J, 162A-162B, 162-165, 170A, 442A, 454A, 571, 572B, 575, 644A
	<b>f. Understand and apply appropriate vocabulary.</b>	4A-4B, 4, 6A-6B, 6, 10, 12, 18A-18B, 18, 22A, 22, 28A-28B, 28, 498A-498B, 499, 502A, 502, 504A, 504, 506A, 506, 522A-522B, 523, 564A, 564

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
02. <b>Perform computations accurately.</b>	<b>a. Add and subtract whole numbers with and without regrouping through 999.</b>	8A, 70A, 80A-80B, 80-81, 82A-83B, 82-85, 94A-94B, 94-95, 96A-96B, 96-97, 98A, 104A, 124I-124J, 126A-126B, 126-127, 128A-128B, 128-131, 132A-132B, 132-135, 146A-146B, 146-147, 148A-148B, 148-149, 150A, 152A-152B, 152-155, 156A-156B, 156-157, 170A, 238A, 406B, 542, 711
	<b>b. Instantly recall basic addition and subtraction facts through 18.</b>	5, 7, 6A, 11, 18A, 27, 368, 427
	<b>c. Add three addends with 1 and 2 digits.</b>	136A-136B, 136-137, 170B, 207, 380A, 453
	<b>d. Multiply whole numbers through 10 x 10.</b>	258I-258J, 260A-260B, 260-261, 262A-262B, 262-265, 276A-276B, 276-279, 280A-280B, 280-281, 282A-282B, 282-283, 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, 328-239, 338A-338B, 338-339, 340A-340B, 340-341, 342A-342B, 342-343, 370A, 406A, 618A
	<b>e. Explore the relationship between multiplication and division.</b>	384A-384B, 384-385, 386A-386B, 386, 388A-388B, 388-389, 392A, 392-393, 406B
	<b>f. Select and use an appropriate method of computation from mental math, paper and pencil, calculator, or a combination of the three.</b>	150A-150B, 150-151, 166A-166B, 166-167, 292B, 396B, 640A-640B, 640-641

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
	<b>g. Use appropriate vocabulary.</b>	126A-126B, 126, 260A, 260, 384A-384B, 384
03. <b>Estimate and judge reasonableness of results.</b>	<b>a. Use estimation to predict computation results.</b>	64I-64J, 86A-86B, 86-89, 98A-98B, 98-101, 104B, 160A-160B, 160-161, 616A-616B, 616-617, 622A-622B, 622-623
	<b>b. Evaluate the reasonableness of an answer.</b>	42A-42B, 42-43, 166-167, 543, 633, 639, 647, 649
	<b>c. Use appropriate vocabulary.</b>	86A-86B, 86-87, 262A-262B, 262-263

**287. MATHEMATICAL REASONING AND PROBLEM SOLVING.**

Rationale: These processes are essential to all mathematics and must be incorporated in all other mathematics standards.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Understand and use a variety of problem-solving skills.</b>	<b>a. Select strategies appropriate to solve a problem.</b>	2I-2J, 12A, 28A, 32A-32B, 32-33, 64I-64J, 76A, 80A, 124I-124J, 143, 258I, 280A, 284A-284B, 284-285, 294A-294B, 314I, 324A, 328A, 348A-348B, 368I-368J, 406A-406B, 426I-426J, 436A, 439, 456A, 496I-496J, 518A, 520A, 528A-528B, 528-529, 562I-562J, 610I-610J, 644A-644B, 644-645, 658A, 680A
	<b>b. Select and use appropriate operations.</b>	4A, 66A, 72A, 82A, 132A, 170-171, 198A, 212A, 232A, 238-239, 266A, 284A-284B, 284-285, 288A, 294-295, 320A, 340A, 346A-346B, 346-347, 348-349, 386A, 398A, 406-407, 432A, 444A, 460A, 502A, 542B, 578A, 590, 622A, 658-659, 688A-688B, 688-689, 702A

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
	<b>c. Make predictions and decisions based on information.</b>	14A-14B, 14-15, 124I-124J, 190J, 236B, 314I-314J, 380A-380B, 380-381, 540A-540B, 540-541, 678J, 708A-708B, 708-709
02. <b>Use reasoning skills to recognize problems and express them mathematically.</b>	<b>a. Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning and concepts.</b>	<p><i>This objective is met in every lesson of the Scott Foresman-Addison Wesley Mathematics series. You will find numerous examples in the “Investigation” activities at the beginning of each chapter and in the “Writing in Math” and “Journal Idea” sections accompanying each lesson.</i></p> <p>2I-2J, 7, 44A, 100-101, 102A-102B, 102-103, 258I, 314I-314J, 431, 436B, 474A-474B, 474-475, 588A-588B, 588-589, 678I-678J, 708A-708B, 708-709</p>
03. <b>Apply appropriate technology and models to find solutions to problems.</b>	<b>a. Appropriately use a 4-function calculator to solve complex grade-level problems.</b>	89, 94B, 316B, 401, 571, 572B, 652B, 694B
	<b>b. Select appropriate models to represent mathematical ideas.</b>	2J, 128A-128B, 128-131, 258J, 314I, 436A-436B, 436-438, 496I, 512B, 536B, 562I, 566A-566B, 568B, 568, 636A, 648A-648B, 648-649, 650B, 656A, 658A-658B, 678J
04. <b>Communicate results using appropriate terminology and methods.</b>	<b>a. Use a variety of methods, such as words, numbers, symbols charts, graphs, tables, diagrams, and models, to communicate mathematical information.</b>	<p><i>This objective is met in every lesson of the Scott Foresman-Addison Wesley Mathematics series. You will find numerous examples in the “Investigation” activities at the beginning of each chapter and in the “Writing in Math” and “Journal Idea” sections accompanying each lesson.</i></p> <p>2I-2J, 5, 13, 14A, 94A, 96A, 105, 140A-140B, 140-142, 190J, 216A-216B, 216-217, 258I-258J, 266A-266B, 266-267, 270A-270B, 270-273, 282A, 344A, 380A, 404A-404B, 404-405, 430, 578A-578B, 578-579, 584A, 632A, 678I-678J</p>

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
	<b>b. Use appropriate vocabulary to communicate mathematical information.</b>	2I-2J, 44B, 50-51, 64I-64J, 110-111, 124I-124J, 176-177, 190I-190J, 244-245, 258I-258J, 294A-294B, 300-301, 314I-314J, 354-355, 368I-368J, 404A-404B, 404, 412-413, 426I-426J, 482-483, 496I-496J, 548-549, 562I-562J, 596-597, 610I-610J, 664-665, 678I-678J

**288. CONCEPTS AND PRINCIPLES OF MEASUREMENT.**

Rationale: The first step in scientific investigation is to understand the measurable attributes of objects.

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
01. <b>Understand and use U.S. customary and metric measurements.</b>	<b>a. Select and use appropriate units and tools to make formal measurements in both systems (time, length, temperature, perimeter).</b>	22A, 190I, 198A-198B, 198-199, 238A-238B, 496J, 532A-532B, 532-533, 534A-534B, 534-535, 582A-582B, 696A-696B,
	<b>b. Apply estimation of measurement to real-world and content problems using actual measuring devices.</b>	472B, 496J, 533, 536, 562J, 582-583, 584B, 584, 678I, 690, 694B, 694
	<b>c. Explore relationships within the U.S. customary system.</b>	222A, 496J, 536A-536B, 536-537, 538A-538B, 538-539, 568A, 630A, 680A-680B, 680-683, 690A-690B, 691-693, 69A, 710A, 710
	<b>d. Explore relationships within the metric system.</b>	584A-584B, 585-587, 684A-684B, 684-685, 694A-694B, 695, 697, 710B
	<b>e. Tell time using both digital and analog clocks, using 5-minute intervals.</b>	192A-192B, 192-195, 196A-196B, 196-197

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
	<b>f. Explore the relationship among units of time.</b>	192B, 238B, 238, 450A, 656A
	<b>g. Use appropriate vocabulary.</b>	192A, 192-193, 198A, 198, 536A, 536, 538A-538B, 538, 582A, 582, 680A-680B, 680, 684A-684B, 684, 690A, 690, 694A, 694, 696A, 696

### 289. CONCEPTS AND LANGUAGE OF ALGEBRA.

Rationale: Algebra is the language of mathematics and science. Through the use of variables and operations, algebra allows students to form abstract models from contextual information.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Use algebraic symbolism as a tool to represent mathematical relationships.</b>	<b>a. Represent vertical notation in horizontal form.</b>	Opportunity to meet this objective can be found on pages 89, 127, 134, 137, 143-145, 278, 281, 283, 287, 289-290
	<b>b. Write a number sentence using symbols (boxes or letters) to represent an unknown number.</b>	76A-76B, 76-77, 226A, 228A, 284A, 346A, 472A, 474A, 510A, 616A, 684A
	<b>c. Use symbols (&lt;, &gt;, =) to express relationships.</b>	18B, 18-21, 34-35, 53, 168A-168B, 168-169, 508
	<b>d. Explore inverse (reversal) of operations with multiplication and division.</b>	384A-384B, 384-385, 386A-386B, 386, 388A-388B, 388-389, 392A, 392-393, 406B
02. <b>Evaluate algebraic expressions.</b>	<b>a. Explore and use the commutative properties of addition and multiplication.</b>	66A-66B, 66-69, 70A-70B, 70-71, 86A, 262A-262B, 263-264
03. <b>Solve algebraic equations and inequalities.</b>	<b>a. Solve missing addends and missing factor problems using inverse operations.</b>	7, 27, 71, 89, 181, 249, 264-265, 385, 395, , 415, 417, 423, 614, 629, 636A, 655, 688A-688B

**290. CONCEPTS AND PRINCIPLES OF GEOMETRY.**

Rationale: The study of geometry helps students represent and make sense of the world by discovering relationships and developing spatial sense.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Apply concepts of size, shape, and spatial relationships.</b>	<b>A. Identify, compare, and analyze attributes of two- and three-dimensional shapes and develop vocabulary to describe the attributes.</b>	276A, 402A, 426I, 428A-428B, 428-431, 432A-432B, 432-433, 446A-446B, 446-449, 450A-450B, 450-453, 454A-454B, 454-455, 498A, 650A, 690A, 696A
	<b>b. Explore congruence, similarity, and symmetry.</b>	204A, 460A-460B, 460-461, 467, 468A, 476B, 477
	<b>c. Investigate perimeters in real-world situations.</b>	464A-464B, 464-467, 476A-476B, 476-477, 542A
	<b>d. Predict and describe the results of sliding, flipping, and turning two-dimensional shapes.</b>	456A-456B, 456-459, 485, 490, 494
	<b>e. Use appropriate vocabulary.</b>	428A-428B, 428, 432A, 432, 446A-446B, 446-447, 450A, 450-451, 454A, 454, 456A, 456-457, 460A, 460, 464A, 464, 476B
02. <b>Apply graphing in two dimensions.</b>	<b>a. Apply ideas about direction and distance.</b>	218A-218B, 218-221, 348A, 453



**291. DATA ANALYSIS, PROBABILITY, AND STATISTICS.**

Rationale: With society's expanding use of data for prediction and decision making, it is important that students develop an understanding of the concepts and processes used in analyzing data.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Understand data analysis.</b>	<b>a. Interpret information found in tables, charts, and graphs.</b>	140A, 208-210, 212-215, 222B, 222-223, 286A, 393A, 428A, 516A, 640A
	<b>b. Explain and justify conclusions drawn from tables, charts, and graphs.</b>	190J, 210, 214-215, 216A, 223, 228, 233, 236A
	<b>c. Understand and use appropriate vocabulary.</b>	204A, 204, 208A, 208, 212A-212B, 212-213, 222A, 222
02. <b>Collect, organize, and display data.</b>	<b>a. Collect, organize, and display data in tables, charts, or graphs in order to answer a question and/or test a hypothesis.</b>	190J, 204A-204B, 204-207, 208A-208B, 212A-212B, 222A, 226A-226B, 226-227, 228A-228B, 228-230, 232A-232B, 232-233, 236A-236B, 236-237, 342A
03. <b>Understand basic concepts of probability.</b>	<b>a. Predict, perform, and record results of simple probability experiments.</b>	678J, 700B, 702A
04. <b>Make predictions or decisions based on data.</b>	<b>a. Make predictions or decisions based on probable results or past experiences.</b>	104A, 136A, 200A, 318A, 384A, 528A, 588A, 626A, 678J, 700A-700B, 700-701, 702A-702B, 702-703, 704A-704B, 704-707
	<b>b. Understand and use appropriate vocabulary.</b>	700A, 700, 702A, 702, 704A, 704

**292. FUNCTIONS AND MATHEMATICAL MODELS.**

Rationale: One of the central themes of mathematics is the study of patterns, relationships, and functions. Exploring patterns helps students develop mathematical power.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Understand the concept of functions.</b>	<b>a. Extend patterns and identify the rule (function) that creates the pattern.</b>	24A-24B, 24-26, 72A-72B, 72-73, 128A, 314J, 332A-332B, 332-335, 340A-340B, 344A-344B, 344-345, 374A, 506A, 566A, 588A-588B, 588-589
	<b>b. Discover, describe, and extend patterns by using manipulatives and pictorial representations.</b>	24A, 126A, 332A-332B, 332-335, 372A, 564A
	<b>c. Understand and use appropriate vocabulary.</b>	24A, 24, 588A-588B, 588-589

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**297. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS.**

Rationale: An understanding of numbers and how they are used is necessary in the everyday world. Computational skills and procedures should be developed in context so the learner perceives them as tools for solving problems.

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
01. <b>Understand and use numbers.</b>	<b>a. Read, write, order, and compare whole numbers to 1,000,000, commonly used fractions, and decimals through hundredths.</b>	4A-4B, 4-7, 8A-8B, 16A-16B, 16-19, 20A-20B, 20-21, 30A, 34A-34B, 34-37, 40A-40B, 40-41, 68A, 136A, 192A, 478B, 498J, 504A-504B, 504-507, 508A-508B, 508-509, 522A-522B, 522-523, 524A-524B, 524-527, 534A, 622I, 624A, 624-627, 628A-628B, 628-629, 630A-630B, 630-631, 632A-632B, 632-633, 644, 656A, 666B, 666
	<b>b. Demonstrate and apply the knowledge of whole numbers, decimal place value, and patterns of periods (hundredths to millions).</b>	2I, 4A-4B, 4-7, 8A-8B, 8-9, 10A-10B, 10-11, 22A-22B, 22-23, 40A-40B, 41, 212A, 366A-366B, 366-367, 406A, 628A-628B, 628-629, 630A, 631, 632A, 632
	<b>c. Determine by counting the value of a collection of bills and coins up to \$100.00.</b>	30A-30B, 30-31, 37, 48, 61, 63, 137, 457
	<b>d. Use concrete materials to recognize, represent, and compare commonly used fractions.</b>	500B, 502A-502B, 504B, 508A-508B, 516A-516B, 516, 522A-522B, 522, 530A, 530-531, 534A-534B
	<b>e. Understand decimals with money through hundredths</b>	28A-28B, 28-29, 34, 624B, 628A-628B, 632A
	<b>f. Understand and apply appropriate vocabulary.</b>	4A-4B, 4-5, 20A-20B, 20, 508A, 508

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
02. <b>Perform computations accurately.</b>	<b>a. Consistently and accurately add and subtract whole numbers.</b>	8A, 62A-62B, 62-63, 64A-64B, 64-65, 76A-76B, 76-79, 80A-80B, 80-81, 82A-82B, 82-85, 86A, 102A-102B, 150A, 152A, 264A, 340A, 404A, 408A, 464A, 652A
	<b>b. Multiply and divide whole numbers.</b>	122I-122J, 124A-124B, 124-126, 132A-132B, 132-135, 136A-136B, 136-137, 146A-146B, 146-147, 150A-150B, 150-151, 152A-152B, 152A-152B, 152-153, 154A-154B, 154-155, 160A-160B, 160-163, 166A-166B, 166-167, 168A, 256A-256B, 256-257, 262A-262B, 262-263, 264A-264B, 264-267, 270A-270B, 270-273, 274A-274B, 274-275, 286A-286B, 286-287, 288A-288B, 314A-314B, 314-315, 332A-332B, 332-334, 336A-336B, 336-337, 340A-340B, 340-341, 344A-344B, 344-345, 364I-364J, 366A-366B, 366-367, 374A-374B, 374-377, 380A-380B, 380-383, 386A-386B, 386-389, 390A-390B, 390-391, 392A-392B, 392-393, 402A-402B, 402-403, 406A-406B, 406-407, 452A, 536A, 588A
	<b>c. Add and subtract fractions with like denominators (without requiring simplification).</b>	564A-564B, 564-567, 574A-574B, 574-577, 581, 602A
	<b>d. Add and subtract decimals using money.</b>	77-78, 80B, 81, 83-85, 102A, 151, 200A, 206A, 270A, 372A
	<b>e. Instantly recall multiplication facts through 10s.</b>	122I-122J, 129-130, 133-135, 137, 143, 314A-314B, 406A-406B, 406-407, 636A

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
	<b>f. Select and use an appropriate method of computation from mental math, paper and pencil, calculator, or a combination of the three.</b>	64B, 86A-86B, 86-87, 131, 282A-282B, 282-283, 338A-338B, 338-339
	<b>g. Use appropriate vocabulary.</b>	82A-82B, 82, 124A-124B, 124, 146A, 146, 256A-256B, 262A, 264A, 265, 320A, 366A-366B, 366, 402A, 402
03. <b>Estimate and judge reasonableness of results.</b>	<b>a. Use estimation to predict computation results.</b>	60I, 68A-68B, 68-71, 72A-72B, 72-73, 258A-258B, 258-261, 316A-316B, 316-319, 368A-368B, 368-370, 392A, 408A-408B, 408-411, 560I, 562A-562B, 562-563, 636A-636B, 636-637
	<b>B. Evaluate the reasonableness of an answer.</b>	38A-38B, 38-39, 59, 101, 263, 271, 335, 488
	<b>c. Use appropriate vocabulary.</b>	258A-258B, 258, 316A-316B, 317

**298. MATHEMATICAL REASONING AND PROBLEM SOLVING.**

Rationale: These processes are essential to all mathematics and must be incorporated in all other mathematics standards.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Understand and use a variety of problem-solving skills.</b>	<b>a. Select strategies appropriate to solve a problem.</b>	2I-2J, 12A-12B, 12-13, 24A-24B, 24-25, 60I-60J, 76A, 80A, 122J, 143, 146A, 148A, 204A, 254I-254J, 281, 312I-312J, 326A, 329, 332A, 364I-364J, 396A, 432I-432J, 460A, 476A, 498I-498J, 516A, 560I-560J, 564A, 622I, 662A, 692A, 716A-716B

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
	<b>b. Select and use appropriate operations.</b>	12A, 20A, 24A, 38A, 72A, 90A, 98A, 102-103, 132A, 140A, 156A-156B, 156-157, 164A, 168B, 168, 208A, 216A, 234-235, 262A, 288A, 290A-290B, 290-291, 292-293, 336A, 412-413, 434A, 468A, 478, 520A, 524A, 654A, 690A, 714A-714B, 714-715, 716-717
	<b>c. Make predictions and decisions based on information.</b>	60I, 188I, 278A-278B, 278-280, 364I, 384A-384B, 384-385, 584A-584B, 584-585, 600A-600B, 600-601, 622J, 662A-662B, 662-663, 686J, 696A-696B, 696-697
<b>02. Use reasoning skills to recognize problems and express them mathematically.</b>	<b>a. Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning and concepts.</b>	<p><i>This objective is met in every lesson of the Scott Foresman-Addison Wesley Mathematics series. You will find numerous examples in the “Investigation” activities at the beginning of each chapter and in the “Writing in Math” and “Journal Idea” sections accompanying each lesson.</i></p> 2I-2J, 13, 39, 60I-60J, 169, 219, 254I-254J, 322, 342A-342B, 342-343, 364I-364J, 538A-538B, 538-539, 662A-662B, 662-663
<b>03. Apply appropriate technology and models to find solutions to problems.</b>	<b>a. Appropriately use a 4-function calculator to solve complex grade-level problems.</b>	22B, 40B, 128B, 188I, 411, 467, 560J, 641
	<b>b. Select appropriate models to represent mathematical ideas.</b>	2I-2J, 4A, 22A, 22, 100A-100B, 102B, 122J, 254J, 256B, 264A-264B, 264-267, 292A-292B, 320A-320B, 320-323, 364I, 366B, 372A-372B, 372-373, 374A-374B, 374-377, 390A-390B, 412A, 432I-432J, 474A-474B, 474-475, 560I, 648A-648B, 666A

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
04. <b>Communicate results using appropriate terminology and methods.</b>	<b>a. Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to communicate mathematical information.</b>	<i>This objective is met in every lesson of the Scott Foresman-Addison Wesley Mathematics series. You will find numerous examples in the “Investigation” activities at the beginning of each chapter and in the “Writing in Math” and “Journal Idea” sections accompanying each lesson.</i>  2J, 7, 60I-60J, 79, 94A, 96A, 140A-140B, 140-142, 198A-198B, 198-199, 215, 254I-254J, 323, 326A-326B, 326-328, 364I-364J, 460A-460B, 460-461, 512A-512B, 512-513, 541, 603, 714A
	<b>b. Use appropriate vocabulary to communicate mathematical information.</b>	2I-2J, 46-47, 94A, 94, 100A, 100, 108-109, 122I-122J, 174-175, 188I-188J, 254I-254J, 312I-312J, 350-351, 364I-364J, 418-419, 432I-432J, 484-485, 498I-498J, 500A, 500, 546-547, 560I-560J, 608-609, 622I-622J, 686I-686J
	<b>c. Use appropriate notation.</b>	28B, 28, 94A-94B, 94-95, 96A-96B, 96-97, 160B, 298-299, 459, 500A-500B, 500-501, 596A

**299. CONCEPTS AND PRINCIPLES OF MEASUREMENT.**

Rationale: The first step in scientific investigation is to understand the measurable attributes of objects.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Understand and use U.S. customary and metric measurements.</b>	<b>a. Select and use appropriate units and tools to make formal measurements in both systems (time, length, temperature, perimeter, area).</b>	188I, 196A-196B, 234A, 432J, 468A-468B, 468, 560J, 588A-588B, 588-589, 590A-590B, 590-591, 594B, 622J, 652A-652B, 653, 656A-656B, 664A, 664-665

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
	<b>b. Apply estimation of measurement to real-world and content problems using actual measuring devices.</b>	188I, 588-589, 591, 592B, 592, 594, 652-653, 654, 656
	<b>c. Apply understanding of relationships within the U.S. customary system.</b>	390A, 540, 560J, 578A, 588A-588B, 588, 592A-592B, 592-593, 594A, 596A-596B, 596-599, 600A, 602B, 602-603, 706A, 716A
	<b>d. Apply understanding of relationships within the metric system.</b>	652A, 654A-654B, 656A-656B, 656-657, 658A-658B, 658-660, 666B, 667
	<b>e. Tell time using both digital and analog clocks, to the nearest minute.</b>	190A-190B, 190-191, 197, 203, 242-243, 244, 250
	<b>f. Apply understanding of relationships to solve real-world problems related to time.</b>	188I, 192A-192B, 192-194, 203
	<b>g. Use appropriate vocabulary.</b>	190A-190B, 190, 192A, 192-193, 588A, 588, 592A, 592, 594A-594B, 594, 652A-652B, 652, 656A, 656, 664A-664B, 664

### **300. CONCEPTS AND LANGUAGE OF ALGEBRA.**

Rationale: Algebra is the language of mathematics and science. Through the use of variables and operations, algebra allows students to form abstract models from contextual information.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
<b>01. Use algebraic symbolism as a tool to represent mathematical relationships.</b>	<b>a. Represent vertical notation in horizontal form.</b>	Opportunity to meet this objective can be found on pages 70-71, 78-79, 81, 83-85, 120, 129-130, 134, 145, 334



<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
	<b>b. Write a number sentence using symbols (boxes or letters) to represent an unknown number.</b>	32A, 222A, 226A, 314A, 384A, 396A-396B, 396-398, 478A, 500A, 596A, 632A, 666A, 690A-690B, 690-691, 700A
	<b>c. Use symbols (&lt;, &gt;, =) to express relationships.</b>	16B, 16-18, 48-49, 57, 149, 153, 371, 389, 522-523, 524-527, 534-535, 562-563, 597-598, 631, 633, 659-660
<b>02. Evaluate algebraic expressions.</b>	<b>a. Explore and use the commutative properties of addition and multiplication.</b>	62, 129, 148A-148B, 148-149, 288B, 288-289
<b>03. Solve algebraic equations and inequalities.</b>	<b>a. Solve missing addends and missing factor problems using inverse operations.</b>	9, 51, 101, 104-105, 121, 131

### **301. CONCEPTS AND PRINCIPLES OF GEOMETRY.**

Rationale: The study of geometry helps students represent and make sense of the world by discovering relationships and developing spatial sense.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
<b>01. Apply concepts of size, shape, and spatial relationships.</b>	<b>a. Identify, compare, and analyze attributes of two- and three-dimensional shapes and develop vocabulary to describe the attributes.</b>	100A, 258A, 368A, 432I, 434A-434B, 434-437, 438A-438B, 438-439, 444A-444B, 444-447, 448A-448B, 448-449, 456A, 460A-460B, 460-461, 478-479, 710A
	<b>b. Explore relationships among and properties of shapes (congruence, similarity, symmetry).</b>	12A, 452A-452B, 452-454, 456A-456B, 456-457, 458A-458B, 458-459, 474A, 478B
	<b>c. Use concrete objects to determine perimeters of triangles, and areas and perimeters of rectangles/squares.</b>	432J, 464A-464B, 464, 468A-468B, 468, 471, 474A-474B, 474-475

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
	<b>d. Predict and describe the results of sliding, flipping, and turning two-dimensional shapes.</b>	452A-452B, 452-455, 462-463, 486, 495, 504A
	<b>e. Use appropriate vocabulary.</b>	434A-434B, 434-435, 438A-438B, 438, 444A, 444-446, 448A, 448, 452A-452B, 452-454, 456A, 456, 458A, 458, 464A-464B, 464, 468A, 468
02. <b>Apply graphing in two dimensions.</b>	<b>a. Apply ideas about direction and distance.</b>	212A-212B, 212-215, 338A, 692A-692B, 692-695

**302. DATA ANALYSIS, PROBABILITY, AND STATISTICS.**

Rationale: With society’s expanding use of data for prediction and decision making, it is important that students develop an understanding of the concepts and processes used in analyzing data.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Understand data analysis.</b>	<b>a. Read and interpret tables, charts, and graphs.</b>	166A, 204A-204B, 204-205, 206-207, 208-211, 216A-216B, 216-219, 222A, 229, 230A, 392A, 399, 440A, 536-537, 688A, 704A
	<b>b. Explain and justify conclusions drawn from tables, charts, and graphs.</b>	188J, 208A, 210, 216A-216B, 218, 232A-232B, 232-233, 538A, 692A-692B, 693
	<b>c. Understand and use vocabulary.</b>	204A, 204, 206A, 206, 208A, 208, 216A, 216, 404A, 404, 536A, 536
02. <b>Collect, organize, and display data.</b>	<b>a. Collect, order, and display data in appropriate notation in tables, charts, and graphs (bar graphs, tally charts, pictographs), in order to answer a question and/or test a hypothesis.</b>	188J, 206A-206B, 208A-208B, 222B, 222-223, 230A-230B, 230-231, 342A, 344A, 536A-536B, 630A, 686I

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
03. <b>Apply simple statistical measurements.</b>	<b>a. Determine an average (mean) of a set of whole numbers.</b>	404A-404B, 404-405, 406A, 411, 412B, 412, 540A, 640, 658A
04. <b>Understand basic concepts of probability.</b>	<b>a. Predict, perform, and record results of simple probability experiments.</b>	686J, 701, 709
05. <b>Make predictions or decisions based on data.</b>	<b>a. Make predictions based on simple experimental probabilities.</b>	22A, 154A, 232A, 286A, 438A, 522A, 642A, 700A-700B, 700-703, 706A-706B, 706-709, 710A-710B, 710-711
	<b>b. Understand and use appropriate vocabulary.</b>	700A-700B, 700-701, 710A, 710

### **303. FUNCTIONS AND MATHEMATICAL MODELS.**

Rationale: One of the central themes of mathematics is the study of patterns, relationships, and functions. Exploring patterns helps students develop mathematical power.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Understand the concept of functions.</b>	<b>a. Extend patterns and identify a rule (function) that creates the pattern.</b>	37, 60J, 90-91, 124A, 127, 136, 164A-164B, 164-165, 167, 374A, 380A, 402A-402B, 402-403
	<b>b. Discover, describe, and extend patterns by using manipulatives and pictorial representations.</b>	90A-90B, 90-91, 128A-128B, 128, 274A, 584A, 686I
	<b>c. Understand and use vocabulary.</b>	402A, 402

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**307. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS.**

Rationale: An understanding of numbers and how they are used is necessary in the everyday world. Computational skills and procedures should be developed in context so the learner perceives them as tools for solving problems.

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
01. <b>Understand and use numbers.</b>	<b>a. Read, write, order, and compare whole numbers through billions, commonly used fractions, and decimals through thousandths.</b>	4B, 4-5, 6A-6B, 6-7, 8A-8B, 8-11, 12A-12B, 12-13, 25, 26A-26B, 26-27, 237, 404A-404B, 404-405, 418A-418B, 418-419, 420A-420B, 420-423, 430A-430B, 430-431
	<b>b. Demonstrate and apply the knowledge of whole numbers, decimal place value, and patterns of periods (thousandths to billions).</b>	2I, 4A-4B, 4-5, 8B, 8-11, 12A-12B, 14A-14B, 14-17, 26A-26B, 26-27, 97, 136A-136B, 136-137, 138B, 152B, 202B, 536B
	<b>c. Explore the relationship between equivalent fractions.</b>	410A-410B, 410-411, 412A-412B, 412-413, 458I
	<b>d. Explore the relationship between decimals and simple fractions through thousandths.</b>	426A-426B, 426-429, 430A-430B, 430-431, 469
	<b>e. Show a sense of magnitudes and relative magnitudes of whole numbers, decimals, and simple fractions.</b>	6A-6B, 6-7, 12A-12B, 12-13, 25, 237, 404A-404B, 404-405, 418A-418B, 418-419, 420A-420B, 420-423, 430A-430B, 430-431
	<b>f. Explore and apply number theory concepts (prime, composite, multiples, factors).</b>	138B, 162A-162B, 162-163, 164A-164B, 164-167, 174A, 214B, 273, 412B, 414A-414B, 414-415, 416A-416B, 416-417, 434A, 464A-464B, 464-465, 469

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
02. <b>Perform computations accurately.</b>	<b>a. Multiply and divide whole numbers.</b>	66A-66B, 66-67, 68A, 72A-72B, 72-75, 130I-130J, 132A-132B, 132-135, 136A-136B, 136-137, 138A-138B, 138-141, 148A-148B, 148-151, 152A-152B, 152-155, 156A-156B, 156-157, 158A-158B, 158-159, 161, 176A, 200I-200J, 202A-202B, 202-203, 210A, 214A-214B, 214-217, 218A-218, 218-221, 222A, 224A-224B, 224-225, 292A, 302A, 328A, 340A, 342A, 364A, 462A, 481, 506A, 554A, 606A
	<b>b. Add and subtract fractions with like denominators and simplify as necessary.</b>	460A-460B, 460-461, 463, 472A-472B, 472-473, 493
	<b>c. Add and subtract decimals through thousandths.</b>	2J, 38A-38B, 38-39, 40A-40B, 40-41, 91, 97, 702A
	<b>d. Instantly recall basic multiplication and division facts up to 10s.</b>	64I, 64, 130I, 130, 138A, 200
	<b>e. Evaluate numerical expressions that include parentheses.</b>	70A-70B, 70, 77, 172A, 172-173, 617, 694I, 699
	<b>f. Select and use an appropriate method of computation from mental math, paper and pencil, calculator, or a combination of the three.</b>	76A-76B, 76-77, 200J, 202B, 222A-222B, 222-223
	<b>g. Use appropriate vocabulary.</b>	66A-66B, 66, 72A-72B, 73, 132A, 132-133

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
03. <b>Estimate and judge reasonableness of results.</b>	<b>a. Use estimation to predict computation results.</b>	28A-28B, 28-31, 37, 41, 68B, 69, 86A-86B, 87, 130I-130J, 138A-138B, 138-141, 161, 204A-204B, 204-207, 474A-474B, 474-475, 476-477, 479-480, 494A-494B, 494-495
	<b>b. Recognize when estimation is appropriate and understand the usefulness of an estimate as distinct from an exact answer.</b>	18A, 80A, 162A, 214A, 474A, 624A-624B, 624-625, 626B, 647, 652A
	<b>c. Determine whether a given estimate is an overestimate or underestimate.</b>	29, 68A-68B, 68-69, 77, 86A, 86, 138B, 140, 205
	<b>d. Use appropriate vocabulary.</b>	28A-28B, 28, 204A, 204

**308. MATHEMATICAL REASONING AND PROBLEM SOLVING.**

Rationale: These processes are essential to all mathematics and must be incorporated in all other mathematics standards.

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
<p>01. <b>Understand and use a variety of problem-solving skills.</b></p>	<p><b>a. Use a variety of strategies to compute problems drawn from real-world situations.</b></p>	<p>6A, 12A, 24, 26A, 36A, 72A, 76A, 86A, 94A, 130J, 136A, 156A, 172A, 202A, 204A, 210A-210B, 210-211, 234A, 262A, 296A, 332A, 336A, 352A-352B, 406A, 466A, 526J, 550A, 598A, 644I, 660A</p>
	<p><b>b. Solve problems using the 4-step process of problem solving (explore, plan, solve, examine).</b></p>	<p>18A-18B, 18-19, 32A-32B, 32-33, 42A-42B, 42-43, 80-81, 144-145, 168-169, 210-211, 226A-226B, 226-227, 276-279, 352-355, 406A-406B, 406-407, 434-437, 484-487, 504A-504B, 504-505, 558-559, 606-607, 660-661, 706-709</p>
	<p><b>c. Make predictions and decisions based on information.</b></p>	<p>8A, 64I, 168A-168B, 210A-210B, 210-211, 258I-258J, 434A-434B, 434-436, 664A-664B, 664-665</p>
<p>02. <b>Use reasoning skills to recognize problems and express them mathematically.</b></p>	<p><b>a. Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning and concepts.</b></p>	<p><i>This objective is met in every lesson of the Scott Foresman-Addison Wesley Mathematics series. You will find numerous examples in the “Investigation” activities at the beginning of each chapter and in the “Writing in Math” and “Journal Idea” sections accompanying each lesson.</i></p> <p>2I-2J, 5, 37, 64I-64J, 292A-292B, 292-293, 304, 326I-326J, 570A-570B, 570-571, 720A-720B, 720-721</p>

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
	<b>b. Apply solutions and strategies to new problem situations.</b>	44A-44B, 44-45, 110A-110B, 110-111, 180A-180B, 180-181, 238A-238B, 238-239, 306A-306B, 306-307, 372A-372B, 372-373, 438A-438B, 438-439, 506-507, 572A-572B, 572-573, 626A-626B, 626-627, 676-677
	<b>c. Formulate conjectures and discuss why they must be or seem to be true.</b>	130I, 258J, 292-293, 526J, 644I
<b>03. Apply appropriate technology and models to find solutions to problems.</b>	<b>a. Understand the purpose and capabilities of appropriate technology use as a tool to solve problems.</b>	76A-76B, 76-77, 91, 106B, 167, 200J, 222A-222B, 222-223, 481, 651
	<b>b. Use computer applications to display and manipulate data.</b>	11, 70B, 162B, 230, 273, 414A, 610A, 715
	<b>c. Select appropriate models to represent mathematical ideas.</b>	2I, 36B, 66B, 92A-92B, 92-93, 132A-132B, 132-135, 148A-148B, 148-149, 282B, 392I-392J, 412A, 458I-458J, 490A-490B, 490, 496A-496B, 496-498, 502A, 502, 592I-592J, 606A-606B, 644J, 668A-668B
<b>04. Communicate results using appropriate terminology and methods.</b>	<b>a. Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to communicate mathematical information.</b>	<p><i>This objective is met in every lesson of the Scott Foresman-Addison Wesley Mathematics series. You will find numerous examples in the "Investigation" activities at the beginning of each chapter and in the "Writing in Math" and "Journal Idea" sections accompanying each lesson.</i></p> 2I-2J, 27, 64I-64J, 80A-80B, 80-81, 276A-276B, 276-278, 293, 326I-326J, 356A-356B, 356-357, 558A-558B, 558-559, 660A-660B, 662A-662B, 662-663
	<b>b. Use appropriate vocabulary to communicate mathematical information.</b>	2I-2J, 50-51, 64I-64J, 116-117, 130I-130J, 186-187, 200I-200J, 244-245, 258I-258J, 312-313, 326I-326J, 378-379, 392I-392J, 444-445, 458I-458J, 512-513, 526I-526J, 578-579, 592I-592J, 630-631, 644I-644J, 682-683, 694I-694J



<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
	<b>c. Use appropriate notation.</b>	70A-70B, 70, 74, 84B, 172A-172B, 172-173, 211, 394A, 398A, 398-399, 699

**A. CONCEPTS AND PRINCIPLES OF MEASUREMENT.**  
 Rationale: The step in scientific investigation is understanding the measurable attributes of objects.

<b>Standard – The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
<b>01. Understand and use U.S. customary and metric measurements.</b>	<b>a. Select and use appropriate units and tools to make formal measurements in both systems.</b>	528A-528B, 532A-532B, 532-533, 534B, 535, 568A, 622
	<b>b. Apply estimation of measurement to real-world and content problems using actual measuring devices.</b>	616A, 616
	<b>c. Explore the differences and relationships between perimeter and area in both systems.</b>	70A, 526J, 549, 572A, 648A
	<b>d. Solve problems involving length, perimeter, area, weight, mass, and temperature.</b>	28A, 70A, 276A, 404A, 526I-526J, 530-531, 533, 535, 538, 540A-540B, 540-541, 548A-548B, 548-549, 550A-550B, 550-551, 552A-552B, 552-553, 554A-554B, 554-555, 568-569, 602A-602B, 602-603, 620B, 621, 646A, 672A, 717
	<b>e. Convert unit of measurement within each system.</b>	40A, 97, 266A, 400A, 414A, 528A-528B, 528-531, 536A-536B, 536-539, 562A, 614A-614B, 614-615, 616A-616B, 616-617, 620A, 620-621, 622A-622B, 622-623, 626A, 674, 718A

<b>Standard – The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
	<b>f. Apply understanding of relationships to solve real-world problems related to time.</b>	84A, 225, 562-563, 620A, 669
	<b>g. Use appropriate vocabulary.</b>	534A-534B, 534, 552A, 552, 568A, 568, 602A, 602, 614A, 614, 616A-616B, 616, 620A, 620, 622A-622B, 622
<b>02. Apply dimensional analysis.</b>	<b>a. Understand units and their relationship to one another and to real-world applications.</b>	168A, 218A, 528B, 531, 534A-534B, 534-535, 614B, 614, 620, 623, 625

**B. CONCEPTS AND LANGUAGE OF ALGEBRA.**

Rationale: Algebra is the language of mathematics and science. Through the use of variables and operations, algebra allows students to form abstract models from contextual information.

<b>Standard – The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
<b>01. Use algebraic symbolism as a tool to represent mathematical relationships.</b>	<b>a. Explore the meaning and use of variables in simple expressions and equations.</b>	100A-100B, 100-103, 104A-104B, 104-105, 108A-108B, 108-109, 110A, 176A-176B, 176-179, 270A, 398A, 460A, 540A, 622A, 694I-694J, 696A-696B
	<b>b. Translate simple word statements and story problems into algebraic equations.</b>	108B, 224A, 226A, 286A, 484A-484B, 490A, 668A, 700A, 706A-706B, 706-708, 715, 716A
	<b>c. Use symbols (&lt;, &gt;, =) to express relationships.</b>	7, 13, 87, 237, 418A-418B, 418-419, 420A-420B, 420-423, 714
<b>02. Evaluate algebraic expressions.</b>	<b>a. Explore and use the following properties as they relate to addition and multiplication: commutative, associative, identity, zero, and inverse.</b>	22-23, 66A-66B, 75, 76, 567, 696A-696B, 696-699

<b>Standard – The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
	<b>b. Investigate the order of operations (parentheses only).</b>	70A-70B, 70-71, 74, 77, 172A-172B, 172-173, 231, 617, 694I
03. <b>Solve algebraic equations and inequalities.</b>	<b>a. Solve missing addends and missing factor problems using inverse operations.</b>	55, 85, 108B, 109, 112, 119, 129, 135, 175, 475, 694I, 700A-700B, 700-701, 702A-702B, 702-703

**C. CONCEPTS AND PRINCIPLES OF GEOMETRY.**

Rationale: The study of geometry helps students represent and make sense of the world by discovering relationships and developing spatial sense.

<b>Standard – The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Apply concepts of size, shape, and spatial relationships.</b>	<b>a. Identify, compare, and analyze attributes of two- and three-dimensional shapes and develop vocabulary to describe the attributes.</b>	238A, 326I-326J, 336A-336B, 336-337, 340A-340B, 340-341, 342A-342B, 342-345, 346A-346B, 346-349, 371, 542A-542B, 542-545, 548A, 592I, 594A-594B, 594-597, 598A-598B, 598-601, 616A
	<b>b. Explore the fundamental concepts, properties, and relationships among points, lines, rays, angles, and shapes.</b>	326I-326J, 328A-328B, 328-331, 332A-332B, 332-335, 336A-336B, 336-337, 342A-342B, 342-345, 346A-346B, 346-349, 363, 371, 476A, 674
	<b>c. Explore congruence, similarities, and symmetry of shapes.</b>	14A, 164A, 282A, 360A-360B, 360-362, 367, 368A-368B, 368-370
	<b>d. Determine perimeters of polygons and area of rectangles/squares in real-world situations.</b>	260A, 276A, 368A, 404A, 526J, 540B, 540-541, 550-551, 558A-558B, 558-559, 602B, 602-603, 614A

<b>Standard – The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
	<b>e. Predict and describe the results of sliding, flipping, and turning two-dimensional shapes.</b>	364A-364B, 364-366, 397, 438A
	<b>f. Use appropriate vocabulary.</b>	328A-328B, 328-329, 332A, 332-333, 336A-336B, 336, 340A, 340, 342A, 342, 346A, 346, 360A-360B, 360, 364A, 364, 368A, 368, 542A, 542-543, 594A, 594-595, 598A, 598
<b>02. Apply graphing in two dimensions.</b>	<b>a. Identify and plot points on a coordinate plane.</b>	174A-174B, 174-175, 176A-176B, 177-178, 651, 652A-652B, 652, 655, 724A-724B, 724-727, 728A-728B, 728-729

**D. DATA ANALYSIS, PROBABILITY AND STATISTICS.**

Rationale: With society’s expanding use of data for prediction and decision-making, it is important that students develop an understanding of the concepts and processes used in analyzing data.

<b>Standard – The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
<b>02. Understand data analysis.</b>	<b>a. Read and interpret tables, charts, and graphs.</b>	88A, 152A, 261, 264-265, 266B, 266-267, 270, 286A, 286-287, 292A-292B, 426A
	<b>b. Explain and justify conclusions drawn from tables, charts, and graphs.</b>	260-261, 262B, 267-269, 283-284, 288A-288B, 288-290, 292A-292B, 292-293, 352A, 644I

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
	<b>c. Understand and use vocabulary.</b>	260A, 260, 262A, 262-263, 266A-266B, 270A-270B, 270-271, 286A, 286, 288A, 288-289
<b>03. Collect, organize, and display data.</b>	<b>a. Collect, organize, and display data with appropriate notation in tables, charts, and graphs.</b>	92A, 260A-260B, 262A-262B, 266A-266B, 268, 270A-270B, 271-272, 286B, 356A, 602A, 644I, 696A
<b>04. Apply simple statistical measurements.</b>	<b>a. Find measures of central tendency - mean, median, and mode - with simple sets of data.</b>	232A, 282A-282B, 282-285, 306A, 500A, 613
	<b>b. Determine the range of a set of data.</b>	270A, 271-272, 278, 282B, 285, 288A, 610A
<b>05. Understand basic concepts of probability.</b>	<b>a. Predict, perform, and record results of simple probability experiments.</b>	296A-296B, 297
	<b>b. Understand and use the language of probability.</b>	296A, 296-297, 302A-302B, 302
<b>06. Make predictions or decisions based on data.</b>	<b>a. Make predictions based on simple experimental probabilities.</b>	180A, 296B, 296, 298-299, 301, 302A-302B, 302-305, 412A, 478A, 558A, 594A, 654A, 706A
	<b>b. Understand and use appropriate vocabulary.</b>	296A, 296-297, 302A-302B, 302

**313. FUNCTIONS AND MATHEMATICAL MODELS.**

Rationale: One of the central themes of mathematics is the study of patterns, relationships, and functions. Exploring patterns helps students develop mathematical power.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Understand the concept of functions.</b>	<b>a. Extend patterns and identify a rule (function) that generates the pattern using whole numbers and decimals.</b>	106A-106B, 106-107, 108A, 356B, 652-653, 655, 694J, 720A-720B, 720-721
	<b>b. Discover, describe, and extend patterns by using manipulatives and pictorial representations.</b>	106A, 106, 141, 144A-144B, 144-145, 394A, 606A
	<b>c. Use mathematical models to show change in real context.</b>	266A-266B, 266-268, 276B, 288B, 290-291, 292A-292B, 292-293
	<b>d. Understand and use appropriate vocabulary.</b>	106A, 106
02. <b>Apply functions to a variety of problems.</b>	<b>a. Use patterns to represent and solve simple problems.</b>	84B, 84, 136A-136B, 136-137, 202A-202B, 202, 372, 458I, 568A, 712A

**Scott Foresman – Addison Wesley Mathematics  
to the  
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Grade Six**

**317. BASIC ARITHMETIC, ESTIMATION, AND ACCURATE COMPUTATIONS.**

Rationale: An understanding of numbers and how they are used is necessary in the everyday world. Computational skills and procedures should be developed in context so the learner perceives them as tools for solving problems.

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
01. <b>Understand and use numbers.</b>	<b>a. Read, write, order, and compare whole numbers, fractions, and decimals.</b>	4A-4B, 4-6, 12A-12B, 12-13, 14A-14B, 14-15, 76A-76B, 76-77, 78A-78B, 78-79, 80A-80B, 80-81, 169, 176A-176B, 176-179, 205, 412A-412B, 412-413, 632
	<b>b. Understand the use of fractions and decimals and their interrelationship.</b>	140J, 172A-172B, 172-175, 205, 251, 358A-358B, 358-361
	<b>c. Expand the use of decimals and fractions to explore the use of percents and ratios.</b>	298J, 300A-300B, 300-301, 302A-302B, 302-304, 352I-352J, 354A-354B, 354-357, 358A-358B, 358-361, 366A-366B, 366-367, 368A-368B, 368-369, 370A-370B, 370-371, 380A-380B, 380-383, 386A-386B, 386-387, 408A, 410A, 658A
	<b>d. Show a sense of magnitudes and relative magnitudes of real numbers (whole numbers, fractions, decimals).</b>	12A-12B, 12-13, 78A-78B, 78-79, 169, 176A-176B, 176-179, 412A-412B, 412-413

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
	<p><b>e. Develop and apply number theory concepts [prime, composite, Greatest Common Factor (GCF), Lowest Common Multiple (LCM), prime factorization].</b></p>	<p>140I, 142A-142B, 142-145, 146A-146B, 146-149, 150A-150B, 150-151, 152A-152B, 152-153, 163, 557, 716A</p>
	<p><b>f. Explore the use of integers in real-world situations.</b></p>	<p>406I-406J, 408A-408B, 409, 410B, 411, 418B, 420-421, 422A-422B, 424, 426B, 427, 428B, 429</p>
<p><b>02. Perform computations accurately.</b></p>	<p><b>a. Consistently and accurately multiply and divide whole numbers.</b></p>	<p>2I, 7, 20A, 36A, 100A, 120A, 142A, 164A, 220A, 300A, 480A, 490A, 714</p>
	<p><b>b. Add, subtract, multiply, and divide decimals.</b></p>	<p>12A, 24A, 74I-74J, 86A-86B, 86-89, 90A-90B, 90-93, 94A-94B, 94-97, 100A-100B, 100-103, 109, 111, 171, 180A, 218A, 226A, 412A, 633</p>
	<p><b>c. Add and subtract fractions with unlike denominators and simplify as necessary.</b></p>	<p>202I-202J, 206A-206B, 206-209, 218A-218B, 218-219, 220B, 220-223, 228A, 251, 554A</p>
	<p><b>d. Instantly recall basic multiplication and division facts from a 12 x 12 Times Table.</b></p>	<p>18B, 246, 407, 426-427, 428-429, 438, 459, 467</p>
	<p><b>e. Evaluate numerical expressions using the order of operations.</b></p>	<p>2J, 24A-24B, 24-26, 32A-32B, 32-35, 93, 103, 223, 251, 671</p>
	<p><b>f. Explore the use of exponents.</b></p>	<p>8A-8B, 8-11, 15, 17, 76A, 81, 90A, 93, 698A</p>



Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
	<b>g. Explore multiplication and division of fractions.</b>	246I-246J, 248A-248B, 248-250, 252A-252B, 252-255, 258A-258B, 258-259, 266A-266B, 266-269, 270A-270B, 270-271, 276A, 277, 278A, 302A, 428A, 448A, 472A, 657
	<b>h. Select and use an appropriate method of computation from mental math, paper and pencil, calculator, or a combination of the three.</b>	224A-224B, 224-225, 252, 258, 576, 580
	<b>i. Use appropriate vocabulary.</b>	4A, 5, 8A-8B, 8-9, 24A, 24, 32A, 32-33100A, 100, 206A, 207, 266A, 267
<b>03. Estimate and judge reasonableness of results.</b>	<b>a. Use estimation to predict computation results.</b>	2I, 16A-16B, 16-17, 18A-18B, 18-19, 74I-74J, 82A-82B, 82-83, 216A-216B, 216-217, 256A-256B, 256-257
	<b>b. Recognize when estimation is appropriate and understand the usefulness of an estimate as distinct from an exact answer.</b>	18A, 82A, 224A, 226A-226B, 226-227, 251, 510A, 576A, 668A
	<b>c. Determine whether a given estimate is an overestimate or underestimate.</b>	2I, 18-19, 226B, 256B, 257
	<b>d. Use appropriate vocabulary.</b>	16A, 16, 18A-18B, 18

**318. MATHEMATICAL REASONING AND PROBLEM SOLVING.**

Rationale: These processes are essential to all mathematics and must be incorporated in all other mathematics standards.

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
<p>01. <b>Understand and use a variety of problem-solving skills.</b></p>	<p><b>a. Use a variety of strategies to compute problems drawn from real-world situations.</b></p>	<p>8A, 36A-36B, 36-37, 78A, 80A, 94A, 140I, 152A, 274A, 312A, 542A, 570A, 618A-618B, 664A</p>
	<p><b>b. Solve problems using the 4-step process of problem solving (explore, plan, solve, examine).</b></p>	<p>20A-20B, 20-21, 36A-36B, 36-37, 52A-52B, 52-53, 98-99, 116-119, 156-157, 180A-180B, 180-181, 212-213, 264-265, 312-313, 374A-374B, 374-377, 414A-414B, 414-415, 434A-434B, 434-437, 490A-490B, 490-491, 560A-560B, 560-561, 582A-582B, 582-583, 648-649, 706A-706B, 706-707</p>
	<p><b>c. Make predictions and decisions based on information.</b></p>	<p>74I-74J, 98A-98B, 618A, 620A-620B, 620-623, 639, 648A-648B, 648-649</p>
<p>02. <b>Use reasoning skills to recognize problems and express them mathematically.</b></p>	<p><b>a. Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to explain mathematical reasoning and concepts.</b></p>	<p><i>This objective is met in every lesson of the Scott Foresman-Addison Wesley Mathematics series. You will find numerous examples in the "Investigation" activities at the beginning of each chapter and in the "Writing in Math" and "Journal Idea" sections accompanying each lesson.</i></p> <p>2I-2J, 7, 149, 202I-202J, 278A-278B, 278-279, 324A-324B, 324-325, 362A-362B, 362-363, 512A-512B, 512-513, 518-519, 540I-540J, 651, 696I-696J</p>

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
	<p><b>b. Apply solutions and strategies to new problem situations.</b></p>	<p>54A-54B, 54-55, 120A-120B, 120-121, 182A-182B, 182-183, 228A-228B, 228-229, 280A-280B, 280-281, 388A-388B, 388-389, 450A-450B, 450-451, 520A-520B, 520-521, 598A-598B, 598-599, 676A-676B, 676-677, 724A-724B, 724-725</p>
	<p><b>c. Formulate conjectures and discuss why they must be or seem to be true.</b></p>	<p>140J, 540I, 618I, 620A-620B, 620-623, 638A, 639, 696I-696J</p>
<p>03. <b>Apply appropriate technology and models to find solutions to problems.</b></p>	<p><b>a. Understand the purpose and capabilities of appropriate technology use as a tool to solve problems.</b></p>	<p>40B, 109, 165, 224A-224B, 224-225, 425, 499</p>
	<p><b>b. Use computer applications to display and manipulate data.</b></p>	<p>43, 140J, 163, 322B, 597, 627, 638B, 641, 722B</p>
	<p><b>c. Select appropriate models to represent mathematical ideas.</b></p>	<p>44A-44B, 86A, 160A-160B, 202I-202J, 216A-216B, 218A, 246I-246J, 258A-258B, 300B, 312A-312B, 352I-352J, 406J, 540I-540J, 696J</p>
<p>04. <b>Communicate results using appropriate terminology and methods.</b></p>	<p><b>a. Use a variety of methods, such as words, numbers, symbols, charts, graphs, tables, diagrams, and models, to communicate mathematical information.</b></p>	<p><i>This objective is met in every lesson of the Scott Foresman-Addison Wesley Mathematics series. You will find numerous examples in the "Investigation" activities at the beginning of each chapter and in the "Writing in Math" and "Journal Idea" sections accompanying each lesson.</i></p> <p>2I-2J, 15, 156A-156B, 156-157, 179, 202I-202J, 264A-264B, 264-265, 316A, 318A, 490A-490B, 490-491, 540I-540J, 549, 572A, 649, 674A-674B, 674-675, 696I-696J</p>

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
	<b>b. Use appropriate vocabulary to communicate mathematical information.</b>	2I-2J, 60-61, 74I-74J, 126-127, 140I-140J, 188-189, 202I-202J, 234-235, 246I-246J, 286-287, 298I-298J, 352I-352J, 394-395, 406I-406J, 456-457, 470I-470J, 526-527, 540I-540J, 604-605, 618I-618J, 682-683, 696I-696J, 730-731
	<b>c. Use appropriate notation.</b>	5-6, 8A, 8-10, 19, 25-26, 251, 354A, 354-356, 397, 403, 406J, 408-409, 442, 567, 568-569, 576-579

**319. CONCEPTS AND PRINCIPLES OF MEASUREMENT.**

Rationale: The first step in scientific investigation is understanding the measurable attributes of objects.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Understand and use U.S. customary and metric measurements.</b>	<b>a. Select and use appropriate units and tools to make formal measurements in both systems.</b>	542B, 550A-550B, 550-551, 562-563, 576A-576B, 576
	<b>b. Apply estimation of measurement to real-world and content problems using actual measuring devices.</b>	552A, 552
	<b>c. Recognize the differences and relationships between perimeter and area in both systems.</b>	570A-570B, 570-571, 575, 584-585
	<b>d. Solve problems involving length, perimeter, area, weight, mass, and temperature.</b>	30A, 150A, 280A, 380A, 564A-564B, 567, 568A, 568A-568B, 569, 582A, 586A, 620A

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
	<b>e. Convert unit of measurement within each system.</b>	54A, 172A, 212A, 256A, 450A, 516A, 542A-542B, 542-545, 546A-546B, 546-549, 560A, 661
	<b>f. Apply understanding of relationships to solve real-world problems related to time.</b>	554A-554B, 555-557, 567
	<b>g. Use appropriate vocabulary.</b>	542A, 543, 546A-546B, 546, 550A-550B, 550, 564A, 564, 568A, 568
02. <b>Apply concepts of rates and other derived or indirect measurements.</b>	<b>a. Explore the use of rates to make indirect measurements.</b>	306A-306B, 306-309, 370A, 496A, 555
03. <b>Apply the concepts of ratios and proportions.</b>	<b>a. Explore the use of proportions, ratios, and scales.</b>	298I-298J, 300A-300B, 300-301, 302A-302B, 302-305, 316A-316B, 316-317, 318A-318B, 318-321, 322A-322B, 322-323, 362A, 384A-384B, 384-385, 550A, 597, 714
04. <b>Apply dimensional analysis.</b>	<b>a. Understand units and their relationship to one another and to real-world applications.</b>	321, 358A, 444A, 506A, 540, 552A-552B, 552-553, 557, 589, 636A, 706A, 722A-722B, 722-723, 724A

**320. CONCEPTS AND LANGUAGE OF ALGEBRA.**

Rationale: Algebra is the language of mathematics and science. Through the use of variables and operations, algebra allows students to form abstract models from contextual information.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Use algebraic symbolism as a tool to represent mathematical relationships.</b>	<b>a. Explore the meaning and use of variables in simple expressions and equations.</b>	40A-40B, 40-43, 44A-44B, 45-47, 52A, 81, 206A, 274A-274B, 274-275, 277, 434A, 710A-710B, 710-711, 715
	<b>b. Translate simple word statements and story problems into algebraic equations.</b>	86A, 116A-116B, 116-118, 248A, 252A, 624A, 650A, 696I
	<b>c. Use symbols (&lt;, &gt;, =) to express relationships.</b>	12-13, 79, 81, 411, 413, 696, 698A-698B, 698-699, 702-703
02. <b>Evaluate algebraic expressions.</b>	<b>a. Explore and use the following properties in evaluating mathematical and algebraic expressions: commutative, associative, identity, zero, inverse, and distributive.</b>	28A-28B, 28-29, 30A-30B, 30-31, 35, 79, 103, 258B, 258, 700A
	<b>b. Explore the order of operations.</b>	2J, 24A-24B, 24-26, 93, 223, 251, 671
03. <b>Solve algebraic equations and inequalities.</b>	<b>a. Solve one-step equations using inverse operations with whole numbers.</b>	45-46, 48A-48B, 48-51, 89, 97, 430A-430B, 430-431

**321. CONCEPTS AND PRINCIPLES OF GEOMETRY.**

Rationale: The study of geometry helps students represent and make sense of the world by discovering relationships and developing spatial sense.

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
01. <b>Apply concepts of size, shape, and spatial relationships.</b>	<b>a. Precisely describe, classify, and understand relationships among types of one-, two-, and three-dimensional objects using their defining properties.</b>	89, 470I-470J, 494A-494B, 494-495, 502A-502B, 502-503, 512A-512A-512B, 512-513, 715
	<b>b. Construct and measure various angles and shapes using appropriate tools.</b>	476A-476B, 476-479, 480A-480B, 484A-484B, 484-487, 642B
	<b>c. Apply fundamental concepts, properties, and relationships among points, lines, angles, and shapes.</b>	470I, 472A-472B, 472-474, 480-483, 496A-496B, 496-499, 500A-500B, 500-501, 502A
	<b>d. Recognize and apply congruence, similarities, and symmetry of shapes.</b>	470J, 506A-506B, 506-509, 514A-514B, 514-515, 516A-516B, 516-519, 520A
	<b>e. Develop and apply formulas for perimeter, circumference, and area to triangles, quadrilaterals, and circles.</b>	110A, 160A, 564A-564B, 564-567, 568A-568B, 568-569, 572A-572B, 572-575, 576A-576B, 576-579, 580A-580B, 580-581
	<b>f. Explore the relationship between two- and three-dimensional objects.</b>	586A-586B, 586-589, 590A-590B, 590-593, 598A
	<b>g. Explore reflections, translations, and rotations on various shapes.</b>	470J, 510A-510B, 510-511, 512A, 564A

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
	<b>h. Use appropriate vocabulary.</b>	472A, 472-473, 476A-476B, 476-477, 480A-480B, 480, 484A, 484-485, 494A-494B, 494, 496A-497, 500A, 500, 502A-502B, 502, 506A, 506, 510A-510B, 510, 514A-514B, 514, 516A, 516, 564A, 564, 568A, 568, 572A-572B, 572, 576A-576B, 576, 586A-586B, 586-587
02. <b>Apply graphing in two dimensions.</b>	<b>a. Identify and plot points on a coordinate plane.</b>	440A-440B, 440-443, 448A-448B, 448-449, 715, 718A-718B, 718-721, 722A

### 322. DATA ANALYSIS, PROBABILITY AND STATISTICS.

Rationale: With society's expanding use of data for prediction and decision making, it is important that students develop an understanding of the concepts and processes used in analyzing data.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Understand data analysis.</b>	<b>a. Read and interpret tables, charts, and graphs (line graphs, bar graphs, frequency lines or line plots, and circle graphs).</b>	40A, 92, 258A, 514A, 628-631, 636B, 636-637, 638B, 638, 642A, 642-644, 654A, 672A, 700A
	<b>b. Explain and justify conclusions drawn from tables, charts, and graphs.</b>	618I, 620A-620B, 620-623, 638A-638B, 639, 649, 650A-650B, 650-651, 661, 674A-674B, 674-675, 721
	<b>c. Understand and use appropriate vocabulary.</b>	620A-620B, 620-621, 628A, 628-629, 636A, 636, 638A, 638, 642A-642B, 642
02. <b>Collect, organize, and display data.</b>	<b>a. Collect, organize, and display data with appropriate notation in tables, charts, and graphs (line graphs, bar graphs, frequency lines or line plots, and circle graphs).</b>	98A, 366A, 368A, 552A, 618I, 628A-628B, 630, 636A-636B, 637, 638A-638B, 639-641, 642A-642B, 642-645



<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
03. <b>Apply simple statistical measurements.</b>	<b>a. Find measures of central tendency - mean, median, and mode - with simple sets of data.</b>	216A, 426A, 624A-624B, 624-627, 628A-628B, 629-631, 633, 661
	<b>b. Determine the range of a set of data.</b>	624B, 624-627, 628B, 630-631, 633
04. <b>Understand basic concepts of probability.</b>	<b>a. Predict, perform, and record results of simple probability experiments.</b>	664A-664B, 664-665
	<b>b. Understand and use the language of probability.</b>	662A, 662, 664A, 664, 668A-668B, 669, 672A-672B, 672
05. <b>Make predictions or decisions based on data.</b>	<b>a. Make predictions based on simple experimental probabilities.</b>	176A, 324A, 374A, 440A, 476A, 580A, 662A-662B, 662-663, 666-667, 668A-668B, 668-671, 672A-672B, 672-673, 674A, 710A
	<b>B. Understand and use appropriate vocabulary.</b>	662A, 662, 664A, 664, 668A-668B, 669, 672A-672B, 672

### **323. FUNCTIONS AND MATHEMATICAL MODELS.**

Rationale: One of the central themes of mathematics is the study of patterns, relationships, and functions. Exploring patterns helps students develop mathematical power.

<b>Standard - The student will:</b>	<b>Content Knowledge and Skills:</b>	<b>Scott Foresman – Addison Wesley Mathematics References:</b>
01. <b>Understand the concept of functions.</b>	<b>a. Extend patterns and identify a rule (function) that generates the pattern using whole numbers, decimals, and fractions.</b>	140J, 212A-212B, 212-213, 444A-444B, 444-447, 449, 696I-696J, 716A-716B, 716-717
	<b>b. Discover, describe, and extend patterns by using manipulatives and pictorial representations.</b>	116A, 212B, 213, 384A, 696I-696J, 716B, 717

Standard - The student will:	Content Knowledge and Skills:	Scott Foresman – Addison Wesley Mathematics References:
	c. Use mathematical models to show change in real context.	306A, 368A, 552A, 638A-638B, 639-640, 642A
	d. Understand and use appropriate vocabulary.	444A, 444
02. Apply functions to a variety of problems.	a. Use patterns and functions to represent and solve simple problems.	204A, 386A, 590A, 696I-696J, 717