

A Correlation of

SCOTT FORESMAN ■ ADDISON WESLEY

Mathematics

to the

Montana
Standards for Mathematics
Grades K-6



M/M-107

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 Montana Standards for Mathematics. Correlation page references are to the Pupil Edition and associated Teacher Edition.

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
Montana Standards for Mathematics**

Grades K – 4

Mathematics Content Standard 1

Students engage in the mathematical processes of problem solving and reasoning, estimation, communication, connections and applications, and using appropriate technology.

Rationale

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

Benchmarks

Students will:

1. solve problems from many contexts using a variety of strategies (e.g., estimate, make a table, look for a pattern, and simplify the problem). Explain the methods for solving these problems.

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2. apply estimation strategies throughout problem-solving process.

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3. communicate mathematical ideas in a variety of ways (e.g., written, verbal, concrete, pictorial, graphical, algebraic).

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.

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4: 2I-2J, 7, 99, 122I-122J, 342A-342B, 342-343, 523, 538A-538B, 538-539, 560I-560J, 662A-662B, 662-663

4. recognize and investigate the relevance and usefulness of mathematics through applications, both in and out of school.

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5. select and use appropriate technology to enhance mathematical understanding. Appropriate technology may include, but is not limited to, paper and pencil, calculator, and computer.

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Mathematics Content Standard 2

Students demonstrate understanding of and an ability to use numbers and operations.

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.

Benchmarks

Students will:

1. exhibit connections between the concrete and symbolic representation of a problem or concept.

K: 1I, 1J, 16, 25I, 31A-31B, 44, 53B, 55A-55B, 55-56, 59A-59B, 59-60, 61A-61B, 61-62, 75I, 75K-75L, 75-76, 81A-81B, 81-82, 85-86, 89-90, 99-100, 102, 105A-105B, 105-106, 107A-107B, 107-108, 109A-109B, 109-110, 111A-111B, 111-112, 117A-117B, 117-118,

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2. use the number system by counting, grouping and applying place value concepts.

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3. model, explain, and use basic facts, the operations of addition and subtraction of whole numbers, and mental mathematics.

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3: 258I-258J, 259, 260A-260B, 260-261, 262A-262B, 262-265, 266A-266B, 266-267, 274-275, 276A-276B, 276-279, 280A-280B, 280-281, 282A-282B, 282-283, 286A-286B, 286-287, 288A-288B, 288-291, 292A-292B, 292-293, 296-297, 302-303, 304-305, 306-309, 310-313, 314I-314J, 314-315, 316A-316B, 316-317, 318A-318B, 318-319, 320A-320B, , 320-323, 324A-324B, 324-327, 328A-328B, 328-329, 336-337, 338A-338B, 338-339, 340A-340B, 340-341, 342A-342B, 342-343, 346A, 348A-348B, 350-351, 356-357, 358, 360-363, 364-367, 368I-368J, 369, 370A-370B, 370-371, 374A-374B, 374-377, 382-383, 386A-386B, 386-387, 388A-388B, 388-389, 390A-390B, 390-391, 392A-392B, 392-393, 394-395, 397, 398A-398B, 398-401, 402A-402B, 402-403, 406A, 408-409, 414-415, 416-417, 418-421, 422-425, 460A, 474A, 486-487, 496, 502A, 510A, 520A, 552, 610I-610J, 610-611, 612A-612B, 612-615, 618A-618B, 618-621, 624-625, 626A-626B, 626-629, 630A-630B, 630-631, 632A-632B, 632-635, 636A-636B, 636-637, 640A-640B, 640-641, 646-647, 648A-648B, 648-649, 650A-650B, 650-651, 652A-652B, 652-655, 656A-656B, 656-657, 688A, 708A

4: 122I-122J, 124A-124B, 124-127, 128A-128B, 128-131, 132A-132B, 132-135, 136A-136B, 136-137, 140A, 146A-146B, 146-147, 152A-152B, 152-153, 154A-154B, 154-155, 168A, 208A, 216A, 254I-254J, 256A-256B, 256-257, 262A-262B, 262-263, 264A-264B, 264-267, 270A-270B, 270-273, 274A-274B, 274-275, 286A-286B, 286-287, 292A-292B, 312I-312J, 314A-314B, 314-315, 320A-320B, 320-323, 326A, 332A-332B, 332-335, 336A-336B, 336-337, 344A-344B, 364I-364J, 366A-366B, 366-367, 372A-372B, 372-373, 374A-374B, 374-377, 380A-380B, 380-383, 384A-384B, 384-385, 386A-386B, 386-389, 390A-390B, 390-391, 392A-392B, 392-393, 402A-402B, 402-403, 406A-406B, 406-407, 412A-412B, 434A, 452A, 502A, 520A, 536A, 588A

5. model and explain part/whole relationships in everyday situations.**K:** 195L, 213A-213B, 213-214, 215A-215B, 215-216, 217-218, 222, 268**1:** 155J, 181A-181B, 181-182, 183A-183B, 183-184, 185A-185B, 185-186, 187A-187B, 187-188, 189A-189B, 189-190, 195, 202, 218, 232, 238A, 254, 294, 405A, 431A, 492A**2:** 12, 245J, 269B, 271B, 275A-275B, 275-276, 277B, 277-278, 281, 288, 305A, 327A, 382, 418**3:** 260A, 496I, 498B, 500, 502-503, 505, 512B, 513, 514, 516A-516B, 516-517, 518B, 518-519, 520B, 521, 522-525, 530-531, 532A, 542B, 550-551, 552, 555-556, 559-560, 562I, 562, 565, 567, 572B, 572-574, 599, 607, 612A, 622A, 638A-638B, 639**4:** 36, 204A, 500A-500B, 500-501, 502B, 502-503, 506-507, 519, 520B, 520, 524-526, 532, 534-535, 564B, 570-571, 574A-574B, 576, 580, 594A, 602A, 624B, 624, 626-627, 628A, 638A, 640, 642B**Mathematics Content Standard 3**

Students use algebraic concepts, processes, and language to model and solve a variety of real-world and mathematical problems.

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.

Benchmarks***Students will:*****1. use symbols (e.g., boxes or letters) to represent numbers in simple situations.****K:** 96, 260**1:** 105A, 251A, 365A**2:** 35, 94, 105A, 126, 369A**3:** 18A, 55, 78-79, 86A, 112-113, 115, 116, 120, 173, 178, 181, 185, 189, 249, 305, 359, 395, 409, 417, 487, 518A, 629, 636A**4:** 60J, 98A-98B, 98-99, 100A-100B, 100-101, 152A, 160A-160B, 160-163, 166A-166B, 166-167, 512A, 688-689, 690A-690B, 690-691, 692A-692B, 692-695**2. explore the use of variables and open sentences to express relationships (e.g., missing addend).****K:** 260, 280**1:** 89J, 123J, 191A, 223A, 227A, 247A, 281A, 291A, 315A, 335A, 383A, 425A, 439A, 461A, 473A

2: 5A, 29A-29B, 29-30, 35, 40, 67A-67B, 67-68, 71-72, 78, 78A-78B, 83A, 94, 159A-159B, 159-160, 166, 184, 202, 211A, 238, 244A, 249A, 273A, 275A, 355A, 362, 363A, 401A-401B, 401-402, 407A, 424A, 425, 442, 443A-443B, 443-444, 451A, 457, 464
3: 55, 112, 115, 120, 173, 178, 181, 185, 189, 249, 305, 359, 395, 417, 487, 518A, 629, 636A
4: 98A-98B, 98-99, 100A-100B, 100-101, 152A, 160A-160B, 160-163, 166A-166B, 166-167, 468A, 512A, 596A, 690A-690B, 690-691, 692A-692B, 692-695

3. use inverse operations and other strategies to solve number sentences.

K: Readiness: 255-256, 257-258, 259-260

1: 83, 93A-93B, 93-94, 101, 116, 122, 129A-129B, 129-130, 137A-137B, 137-138, 139A-139B, 139-140, 141A-141B, 141-142, 147, 153-154, 154A-154B, 164, 342, 415J, 415, 435A-435B, 435-436, 437A-437B, 437-438, 439A-439B, 439-440, 449-450, 455-456, 470, 492A-492B

2: 23A-23B, 23-24, 27A-27B, 27-28, 33, 39-40, 60, 63A-63B, 63-64, 65A-65B, 65-66, 71-72, 78, 78A-78B, 94, 126, 166, 172A-172B, 184, 202, 227A-227B, 227-228, 237, 244, 268, 332, 338A, 424A

3: 18A, 66A-66B, 66-69, 70A-70B, 70-71, 78-79, 112-113, 115, 116, 120, 181, 384A-384B, 384-385, 396A-396B, 396, 406B, 416, 486-487, 553

4: 82B, 82, 96A-96B, 96-97, 132A-132B, 132-135, 148A-148B, 148-149, 150A-150B, 150-151, 288A-288B, 288-289

Mathematics Content Standard 4

Students demonstrate understanding of shape and an ability to use geometry.

Rationale

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

Benchmarks

Students will:

1. describe, model, and classify two- and three-dimensional shapes.

K: 11-1J, 13-14, 15A-15B, 15-16, 17A-17B, 17-18, 24, 28, 195I, 195K-195L, 197A-197B, 199A-199B, 199-200, 201A-201B, 201-202, 203A-203B, 203-204, 205A-205B, 205-206, 221

1: 49A, 111A, 133A, 155I, 157A-157B, 159A-159B, 159-160, 161A-161B, 161-162, 163, 165A-165B, 165-166, 167A-167B, 167-168, 169A, 179-180, 193A-193B, 196, 201-202, 211A, 232, 238A, 269A, 307A-307B, 307-308, 321, 347A, 477A

2: 51A, 155A, 245-246, 247A-247B, 247-248, 249A-249B, 249-250, 253, 261A, 267, 287-288, 313A, 318, 475A, 498A

3: 36A, 54, 114, 180, 248, 276A, 304, 358, 402A, 426I, 426-427, 428A-428B, 428-431, 432A-432B, 432-433, 440-441, 446A-446B, 446-449, 450A-450B, 450-453, 454A-454B, 454-455, 462-463, 474A-474B, 474-475, 484-485, 486, 488-490, 492-495, 498A, 552, 650A, 690A, 696A

4: 28A-28B, 100A, 338A, 368A, 432I, 434A-434B, 434-437, 438A-438B, 438-439, 444A-444B, 444-447, 448A-448B, 448-449, 456A, 458A, 460A-460B, 460-461, 664A, 710A

2. investigate and predict results of combining, subdividing, and changing shapes.

K: 92, 110, 172, 198, 209A-209B, 209-210, 270

1: 177A-177B, 177-178, 179

2: 245I, 251A-251B, 251-252, 253, 255A-255B, 255-256, 267, 282

3: 192A, 262A

4: 258A, 432I

3. identify lines of symmetry, congruent and similar shapes, and positional relationships.

K: 1K-1L, 1R, 1-2, 3A-3B, 3-4, 5A-5B, 5-6, 7A-7B, 7-8, 9A-9B, 9-10, 23, 38, 148, 195J, 195, 197A-197B, 197-198, 207A-207B, 207-208, 211A-211B, 211-212, 222, 226, 248

1: 1M-1N, 7A, 31A, 75A, 157-158, 169A-169B, 169-170, 171A-171B, 171-172, 173A-173B, 173-174, 179, 196, 202, 238B, 311A, 315A-315B, 315-316, 321, 382, 400, 414B, 492B

2: 57A, 257A-257B, 257-258, 259A-259B, 259-260, 261A-261B, 261-262, 267, 279B, 287, 308, 338A, 362, 424A-424B, 455A, 492

3: 54, 102A, 204A, 358, 456A-456B, 456-459, 460A-460B, 460-461, 462-463, 484-485, 490, 494

4: 12A, 452A-452B, 452-455, 456A-456B, 456-457, 458A-458B, 458-459, 474A, 504A

Mathematics Content Standard 5

Students demonstrate understanding of measurable attributes and an ability to use measurement processes.

Rationale

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

Benchmarks**Students will:****1. estimate, measure, and investigate length, capacity, weight, mass, area, volume, time, and temperature.**

K: 20, 34, 82, 106, 131I-131L, 133A-133B, 133-134, 135A-135B, 135-136, 137A-136B, 137-138, 1401A-141B, 141-142, 145-146, 149-150, 151-152, 153B, 154, 155A-155B, 157-158, 159I, 159K-159L, 159, 161A-161B, 161-162, 163A-163B, 163-164, 165A-165B, 165-166, 167A-167B, 167-168, 173-174, 175-176, 178, 193-194, 204, 214, 234, 250, 274, 288, 290

1: 5A, 21A, 165A, 204, 205A-205B, 205-206, 207A-207B, 207, 208, 209A-209B, 209-210, 211A-211B, 211-212, 217, 225A-225B, 225-226, 227A-227B, 227-228, 231-232, 233, 237-238, 238A-238B, 306, 322, 371-372, 373-374, 375-376, 381, 383A-383B, 383-384, 399-400, 413-414

2: 34, 115A, 193A, 291A-291B, 291-292, 293A-293B, 293-294, 295A-295B, 295-296, 297A-297B, 299A-299B, 299-300, 301A-301B, 301-302, 303A-303B, 303-304, 307, 318, 329A-329B, 337, 343-344, 345A-345B, 345-34, 347-348, 353A-353B, 353-354, 357A-357B, 357-358, 359A-359B, 359-360, 361-362, 365A-365B, 365-366, 367A-367B, 367-368, 369A-369B, 369-370, 371, 379A-379B, 393A, 404, 418, 458, 482

3: 54, 180, 190, 192A-192B, 192-195, 196A-196B, 196-197, 198A-198B, 198-199, 200A-200B, 200-201, 202-203, 238A-238B, 246-247, 250, 254, 304, 338A, 358, 416, 426J, 468A-468B, 468-471, 472A-472B, 472-473, 478-479, 485, 486, 491, 495, 496J, 552, 562I, 563, 592-593, 599, 604-605, 608-609, 678I, 710A

4: 188I, 190A-190B, 190-191, 200A-200B, 234A, 256A, 320A, 432J, 468A-468B, 468-471, 476A-476B, 476-477, 508A, 568A, 588A-588B, 588-589, 648A, 664A-664B, 664-665

2. develop the process of measuring and concepts related to units of measurement, including standard units (English and metric) and nonstandard units.

K: 88, 131L, 139A-139B, 139-140, 147A-147B, 147-148

1: 363, 365A-365B, 365-366, 371A-371B, 373A-373B, 375A-375B, 377A-377B, 377-378, 379A-379B, 379, 380, 381, 391A-391B, 391-392, 393A-393B, 393-394, 399-400, 408, 409, 413-414, 414A-414B

2: 13A, 305A-305B, 305-306, 307, 329B, 339I, 341A-341B, 341-342, 343A-343B, 347A-347B, 363A-363B, 363-364

3: 22A, 54, 114, 180, 222A, 248, 416, 450A, 496J, 497, 536A-536B, 536-537, 538A-538B, 538-539, 544-545, 550-551, 552, 557, 561, 562J, 563, 582A-582B, 582-583, 584A-584B, 584-587, 656A, 680A-680B, 680-683, 684A-684B, 690A-690B, 690-693, 694A-694B, 694-695, 710A-710B

4: 30A, 188I, 192A-192B, 192-194, 390A, 560J, 578A, 588A-588B, 588-589, 592A-592B, 592-593, 594A-594B, 594-595, 596A-596B, 596-599, 652A-652B, 652-653, 654A-654B, 654-655, 656A-656B, 656-657, 658A-658B, 658-661, 666A-666B, 700A

3. apply measurement skills to everyday situations.

K: 60, 159I, 131K-131L, 131, 137B, 142, 145B, 153-154, 155-156, 159J, 163B, 166, 169A-169B, 169-170, 171A-171B, 171-172, 177A-177B, 177-178, 228

1: 17A, 51A, 95A, 145A, 203J, 203, 219A-219B, 219-220, 221A-221B, 221-222, 223A-223B, 223-224, 231-232, 236, 237-238, 238B, 257A, 263A, 265A, 272, 287A, 328A, 356, 369A, 395A-395B, 395-396, 397A, 399, 412, 414, 434, 450, 470

2: 161A, 289I, 289, 297-298, 329A, 339, 353A, 372, 373A, 382, 418, 424B, 439A, 442, 479A, 482, 498A

3: 54, 114, 190I, 208A, 566A, 630A, 684-685, 696-697

4: 188I, 196A-196B, 196-197, 198A, 200-201, 460A, 592A, 600A, 706A

4. select and use appropriate tools and techniques.

K: 131J, 131K-131L, 145A, 149A-149B, 151A-151B, 153A, 170, 173A-173B, 175A-175B

1: 363I, 371A-371B, 371-372, 375A-375B, 389A-389B, 389-390, 395A, 397A-397B, 397-398, 492A

2: 343A-343B, 345A-345B, 347A-347B, 351A-351B, 353A-353B, 355A-355B, 357A-357B, 363A-363B, 365A-365B, 367A-367B, 369A-369B, 383

3: 496J, 532A-532B, 532-533, 534A-534B, 534-535, 544-545, 551, 556-557, 560-561, 562J, 696A-696B

4: 560J, 588A, 590A-590B, 590-591, 622J

Mathematics Content Standard 6

The students demonstrate understanding of and an ability to use 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.

Benchmarks**Students will:****1. collect, organize, and display data.**

K: 25, 33A-33B, 33-34, 47A-47B, 168

1: 251B, 313A-313B, 313-314

2: 217A, 315A-315B, 315-316, 319A-319B, 319-320, 321A-321B, 321-322, 323A-323B, 323-324, 379A

3: 190J, 204A-204B, 226A-226B, 226-227, 228A-228B, 228-231

4: 206A-206B, 208A-208B

2. construct, read, and interpret displays of data, including graphs.

K: 25K, 29B, 29-30, 31B, 36, 47B, 49, 56, 86, 122, 212, 238, 252, 278

1: 29A, 65A-65B, 69A, 79A, 97A, 143A, 218, 219A, 251A-251B, 251-252, 267A, 278, 321, 328, 414A, 434, 435A, 483A

2: 17A, 63A, 69A, 81A, 89A, 119A, 157A, 317, 327A-327B, 327-328, 331, 333, 337-338, 375A, 382, 395A, 405A-405B, 405-406, 413A, 417-418, 424, 427A, 441-442, 447A, 463, 492

3: 55, 107, 115, 140A, 181, 204-207, 208A-208B, 208-211, 212A-212B, 212-215, 222A-222B, 222-223, 224-225, 232-233, 236-237, 240-241, 246-247, 249, 251-253, 255-257, 305, 359, 417, 428A, 487, 516A, 553, 584A, 640A

4: 166A, 204A-204B, 204-205, 206-207, 208-211, 216A-216B, 216-219, 226A-226B, 226-229, 232A-232B, 232-233, 234B, 344A, 440A, 536A-536B, 536-537, 538A, 688A, 704A

3. formulate and solve problems that involve collecting and analyzing data.

K: 25K, 29A, 31A-31B, 31-32, 47A-47B

1: 71A, 309A-309B, 309-310, 311A-311B, 311-312, 356, 391A, 445A

2: 215A, 279A, 313A-313B, 313-314, 424

3: 96A, 232A-232B, 236A-236B, 286A, 342A, 344A, 396A, 680A

4: 94A, 96A, 164A, 188I, 230A-230B, 230-231, 342A, 564A, 630, 658A, 686I, 714A

4. demonstrate basic concepts of chance (e.g., equally likely events, simple probabilities).**K:** 33B, 118, 125A-125B, 125-126, 130, 136, 182, 256**1:** 313, 363J, 364, 401A-401B, 401-402, 403A-403B, 403-404, 407, 414B, 434**2:** 289J, 339J, 373A-373B, 373-374, 375A-375B, 375-376, 377A, 381, 418**3:** 55, 104A, 136A, 181, 200A, 318A, 359, 384A, 417, 528A, 553, 588A, 626A, 678J, 700A-700B, 700-701, 702A-702B, 702-703, 704A-704B, 704-707, 708A-708B, 708-709**4:** 232A, 286A, 386A, 438A, 522A, 642A, 686J, 700A-700B, 700-703, 704A-704B, 704-705, 706A-706B, 706-709, 710A-710B, 710-711**Mathematics Content Standard 7**

Students demonstrate understanding of and an ability to use patterns, relations and functions.

Rationale

One of the central themes of mathematics is the study of patterns, relations, and functions. Exploring patterns helps students develop mathematical power and instills in them an appreciation for the beauty of mathematics.

Benchmarks***Students will:*****1. recognize, describe, extend, and create a variety of patterns.****K:** 25J, 25L, 26, 35A-35B, 35-36, 37A-37B, 37-38, 39A-39B, 39-40, 45A-45B, 45-46, 47-48, 50, 54, 80, 98, 100, 108, 126, 134, 164, 192, 218, 292**1:** 1I, 1, 3A-3B, 3-4, 5A-5B, 5-6, 9-10, 24, 33A-33B, 36, 37, 41, 74, 88A, 91A, 93A, 154A, 243A, 255A-255B, 255-256, 257A-257B, 257-258, 271, 278, 299A, 319A, 353A, 419A**2:** 91A, 95A, 99A-99B, 99-100, 107, 109B, 152, 157A-157B, 157-158, 165, 172, 229A, 231A, 244A, 297A, 409A, 431A, 467A-467B, 467-468**3:** 24A-24B, 24-27, 34, 52, 54-55, 72A-72B, 72-73, 79, 112-113, 115, 116, 120, 126A, 128A, 180, 191, 249, 259, 305, 344A-344B, 344-345, 359, 365, 372A, 374A, 417, 487, 492, 506A, 553, 564A, 588A-588B, 588-589, 605, 609**4:** 122I, 124A, 128A, 164A-164B, 164-165, 274A, 312I, 374A, 380A, 584A**2. represent and describe mathematical and real-world relationships.****K:** 25I, 27A-27B, 27-28, 32, 40, 41A-41B, 41-42, 44, 49, 51J, 63A-63B, 63-64, 77A, 77, 79A, 79, 83A, 83, 85A, 87A-87B, 87-88, 89A-89B, 89-90, 99-100, 103A, 120, 121A-121B, 121-122, 128, 130, 162, 202, 210, 223J, 236, 272, 294

1: 29A-29B, 29-30, 31A-31B, 31-32, 33A, 35-36, 42, 75A-75B, 75-76, 77A-77B, 77-78, 81-82, 88, 88B, 102, 154B, 249A, 263A-263B, 263-264, 278, 294, 295A-295B, 295-296, 297A-297B, 297-298, 301A-301B, 301-302, 305, 322, 323, 328A, 342, 385A-385B, 385-386, 387A-387B, 387-388, 408

2: 12, 91A-91B, 91-92, 93, 95A-95B, 95-96, 97A-97B, 97-98, 107-108, 115A-115B, 115-116, 131-132, 144, 172B, 202, 203, 238, 268, 282, 308, 338A, 355A-355B, 355-356, 390, 399A-399B, 399-400, 403, 407A-407B, 407-408, 409A-409B, 409-410, 417, 419, 423-424, 424A, 482, 498A

3: 2-3, 18A-18B, 18-21, 28A-28B, 28-31, 34-35, 44A-44B, 53, 54, 58, 61-62, 65, 125, 152A, 162A, 168A-168B, 168-169, 172-173, 178-179, 181, 189, 216A-216B, 216-217, 218A, 248, 303, 506A-506B, 506-509, 514, 554-555, 558-559, 568A-568B, 568-571, 572A, 575, 580-581, 599, 611

4: 20A-20B, 20-21, 60J, 68A, 198A-198B, 198-199, 504A-504B, 512A, 522A-522B, 522-523, 524A-524B, 524-527, 534A-534B, 534-535, 630A-630B, 630-631, 632A-632B, 632-633, 688A-688B, 688-689

**Scott Foresman - Addison Wesley Mathematics
to the
Montana Standards for Mathematics**

Grades 5 & 6

Mathematics Content Standard 1

Students engage in the mathematical processes of problem solving and reasoning, estimation, communication, connections and applications, and using appropriate technology.

Rationale

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

Benchmarks

Students will:

1. formulate and solve multi-step and nonroutine problems using a variety of strategies. Generalize methods to new problem situations.

5: 2I-2J, 12A, 32A-32B, 32-33, 44A, 64I-64J, 80A-80B, 80-81, 130I-130J, 144A-144B, 144-145, 172A, 210A-210B, 210-211, 226A-226B, 226-227, 258I-258J, 276A-276B, 276-279, 296A, 300A, 326I-326J, 352A-352B, 352-355, 392I-392J, 406A, 416A, 418A, 434A-434B, 434-437, 458I-458J, 484A-484B, 484-487, 504A, 526I-526J, 534A, 558A-558B, 558-559, 592J, 606A-606B, 606-607, 626A, 644J, 660A-660B, 660-661, 694I-694J, 706A-706B, 706-709, 724A, 730A

6: 2I-2J, 20A-20B, 20-21, 24A, 36A-36B, 36-37, 74I-74J, 100A, 116A-116B, 116-119, 140I-140J, 156A-156B, 156-157, 168A, 180A-180B, 180-181, 202I-202J, 212A-212B, 212-213, 246I-246J, 264A-264B, 264-265, 266A, 298I-298J, 302A, 312A-312B, 312-313, 318A, 324A-324B, 352I-352J, 370A, 374A-374B, 374-377, 406I-406J, 426A, 430A, 434A-434B, 434-437, 490A-490B, 490-491, 540I-540J, 560A-560B, 560-561, 568A, 582A, 586A, 618I-618J, 638A, 648A-648B, 648-649, 696I-696J, 706A-706B, 706-707

2. select and apply appropriate estimation strategies throughout the problem-solving process.

5: 18A, 28A-28B, 28-31, 64I, 68A-68B, 68-69, 86A-86B, 86-87, 130I-130J, 138A-138B, 138-141, 162A, 200I, 204A-204B, 204-207, 402A-402B, 402-403, 474A-474B, 474-475, 494A-494B, 494-495, 624A-624B, 624-625, 652A

6: 2I, 16A-16B, 16-17, 18A-18B, 18-19, 74I-74J, 82A-82B, 82-83, 170A-170B, 170-171, 182A-182B, 216A-216B, 216-217, 226A-226B, 226-227, 256A-256B, 256-257, 368A-368B, 368-369, 444A, 540I, 576A, 658A, 668A

3. interpret and communicate mathematical ideas and logical arguments using correct mathematical terms and notations.

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.

5: 2I-2J, 5, 35, 173, 178, 200I-200J, 664A-664B, 664-665, 694I-694J, 699, 711

6: 2I-2J, 7, 23, 278A-278B, 278-279, 362A-362B, 362-363, 717, 727

4. recognize and investigate the relevance and usefulness of mathematics through applications, both in and out of school.

5: 31, 44-45, 97, 110-111, 155, 180-181, 221, 238-239, 285, 306A, 306-307, 429, 438-439, 499, 506B, 506-507, 544-545, 572-573, 626-627, 675, 676-677, 727, 730-731

6: 35, 103, 120-121, 175, 182-183, 223, 228-229, 269, 280-281, 309, 334-335, 383, 388-389, 421, 450-451, 554-557, 598-599, 676-677, 724-725

5. select and use appropriate technology to enhance mathematical understanding. Appropriate technology may include, but is not limited to, paper and pencil, calculator, computer, and data collection devices.

5: 11, 32B, 64I, 76A-76B, 76-77, 88B, 91, 162B, 167, 172B, 200J, 202B, 221, 222A-222B, 222-223, 230B, 273, 367, 397, 412B, 426B, 464B, 481, 567, 601, 610B, 651, 715, 728B

6: 24B, 40B, 86B, 109, 140J, 163, 165, 167, 209, 224B, 252B, 255, 316B, 322B, 333, 334B, 357, 425, 426B, 593, 597, 641, 645, 661

Mathematics Content Standard 2

Students demonstrate understanding of and an ability to use numbers and operations.

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.

Benchmarks***Students will:*****1. use the four basic operations with whole numbers, fractions, decimals, and integers.**

5: 2J, 4A, 6A, 8A, 22A-22B, 22-25, 36A-36B, 36-37, 38A-38B, 38-39, 40A-40B, 40-41, 64I-64J, 72A-72B, 72-75, 86A, 88A-88B, 88-91, 92A-92B, 92-93, 94A-94B, 94-97,

100A, 104A, 110A-110B, 130I-130J, 132A-132B, 132-135, 136A, 144A, 148A-148B, 148-151, 152A-152B, 152-155, 156A-156B, 156-157, 158A-158B, 158-159, 160A-160B, 160-161, 168A-168B, 168-169, 176A, 180A-180B, 200I-200J, 202A-202B, 202-203, 204A, 210A, 214A-214B, 214-217, 218A-218B, 218-221, 222A, 224A-224B, 224-225, 230A-230B, 230-231, 232A-232B, 232-233, 234A-234B, 234-237, 238A-238B, 262A, 286A, 292A, 302A, 328A, 332A, 340A, 342A, 364A-398A-398B, 398-399, 420A, 426-427, 458J, 460A-460B, 460-461, 462A-462B, 462-463, 466A-466B, 466-469, 472A-472B, 472-473, 476A-476B, 476-477, 478A-478B, 478-481, 490A-490B, 490-493, 494A, 496A-496B, 496-499, 500A-500B, 500-501, 502A-502B, 502-503, 504A-504B, 504-505, 506A, 542A, 564A, 606A, 624A, 668A, 702A, 716A-716B, 716-717, 718A-718B, 718-719, 720A, 728A, 730A-730B

6: 4A, 8A, 12A, 20A, 28A, 32A-32B, 32-35, 52A-52B, 54A, 74I-74J, 76A, 78A, 80A, 86A-86B, 86-89, 90A-90B, 90-92, 94A-94B, 94-97, 98A-98B, 98-99, 100A-100B, 100-103, 106A-106B, 106-109, 120A-120B, 140I, 142A, 152A, 156A, 164A, 202I-202J, 204A-204B, 204-205, 206A-206B, 206-209, 218A-218B, 218-219, 220A-220B, 220-223, 224A-224B, 224-225, 226A, 228A-228B, 246I-246J, 248A-248B, 248-251, 252A-252B, 252-255, 258A-258B, 258-259, 266A-266B, 266-269, 270A-270B, 270-271, 274A, 276A, 278A, 280A-280B, 300A, 406I-406J, 412A, 414A-414B, 414-415, 418A-418B, 418-421, 422A-422B, 422-425, 426A-426B, 426-427, 428A-428B, 428-429, 448A, 450A-450B, 472A, 480A, 484A, 490A, 542A, 554A, 560A, 624A, 664A

2. use mental mathematics and number sense in using order of operations, and order relations for whole numbers, fractions, decimals, and integers.

5: 6A-6B, 6-7, 12A-12B, 12-13, 26A-26B, 26-27, 172A-172B, 172-173, 237, 404A-404B, 404-405, 418A-418B, 418-419, 420A-420B, 420-423, 430A-430B, 430-431, 694I, 712A-712B, 712-714

6: 2J, 12A-12B, 12-13, 14A-14B, 14-15, 24A-24B, 24-26, 54A-54B, 54-55, 78A-78B, 78-79, 80A-80B, 80-81, 176A-176B, 176-179, 410A-410B, 410-411, 412A-412B, 412-413, 422A, 450B, 712-713

3. use the relationships and applications of ratio, proportion, percent, and scientific notation.

5: 76A, 644I-644J, 646A-646B, 646-647, 648A-648B, 648-651, 652A-652B, 652-653, 662A-662B, 662-663, 664A, 668A-668B, 668-669, 670A-670B, 670-671, 672A-672B, 672-674, 676A-676B

6: 110A-110B, 110-111, 146A, 298I-298J, 300A-300B, 300-301, 302A-302B, 302-304, 316A-316B, 316-317, 318A-318B, 318-321, 322A-322B, 322-323, 330A-330B, 330-333, 334A-334B, 352I-352J, 354A-354B, 354-357, 358A-358B, 358-361, 362A, 366A-366B, 366-367, 370A-370B, 370-371, 380A-380B, 380-383, 384A-384B, 384-385, 386A-386B, 386-387, 388A-388B, 408A, 410A, 418A, 546A, 650A

4. develop and apply number theory concepts (e.g., primes, factors and multiples) in real-world and mathematical problem situations.

5: 64I, 66B, 162A-162B, 162-163, 164A-164B, 164-167, 174A, 214B, 234B, 412B, 414A-414B, 414-415, 426A, 434A, 464A-464B, 464-465

6: 140I, 142A-142B, 142-145, 146A-146B, 146-149, 150A-150B, 150-151, 152A-152B, 152-153, 716A

Mathematics Content Standard 3

Students use algebraic concepts, processes, and language to model and solve a variety of real-world and mathematical problems.

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.

Benchmarks**Students will:****1. understand the concepts of variable, expression and equation.**

5: 38A, 100A-100B, 100-103, 104A-104B, 104-105, 110A, 224A, 226A, 398A, 460A, 484A, 490A, 540A, 622A, 694I-694J, 696A-696B, 696-699, 700A-700B, 700-701, 702A-702B, 702-703, 718A

6: 40A-40B, 40-43, 44A-44B, 44-47, 48A-48B, 48-51, 52A, 86A, 172A, 206A, 248A, 252A, 274A-274B, 274-275, 276A-276B, 276-277, 322A, 430A-430B, 430-431, 434A, 624A, 696I, 710A-710B, 710-711, 712A-712B, 712-715, 716A-716B, 716-717

2. represent situations and number patterns using tables, graphs, verbal rules, equations, and models.

5: 66-67, 100, 102, 104A-104B, 104-105, 176A-176B, 176-177, 224A, 226A, 286A, , 712A-712B, 484A, 490A, 550A, 652A-652B, 652-653, 694J, 696A-696B, 698, 700A-700B, 700-701, 702A, 706A-706B, 706-708, 716A

6: 8A-8B, 8-9, 40A-40B, 40-43, 44A-44B, 48A-48B, 86A, 112A-112B, 116A-116B, 116-118, 172A, 274A-274B, 274-275, 298I, 444A-444B, 444-447, 696I-696J, 716A-716B, 716-717, 718A-718B, 718-721

3. recognize and use the general properties of operations (e.g., the distributive property).

5: 22-23, 66A-66B, 66, 70A-70B, 70-71, 500B

6: 28A-28B, 28-29, 30A-30B, 30-31, 258B

4. solve linear equations using concrete, numerical and algebraic methods.**5:** 108A-108B, 108-109, 230-231, 484A, 490A, 694I, 696B, 698, 702A-702B, 702-703**6:** 44B, 46-47, 48A-48B, 50-51, 112A-112B, 112-113, 276A-276B, 276-277, 430A-430B, 430-431, 698A, 712A-712B, 712-715**5. investigate inequalities and nonlinear relationships informally.****5:** 103, 418A-418B, 418-419, 420A-420B, 420-423, 712A-712B, 713-714**6:** 79, 177-179, 448B, 645, 698A-698B, 698-699, 700A-700B, 700-703**Mathematics Content Standard 4**

Students demonstrate understanding of shape and an ability to use geometry.

Rationale

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

Benchmarks***Students will:*****1. identify, describe, construct, and compare plane and solid geometric figures.****5:** 238A, 282A, 326I-326J, 336A-336B, 336-337, 340A-340B, 340-341, 342A-342B, 342-345, 346A-346B, 346-349, 356A-356B, 356-357, 372A-372B, 592I, 594A-594B, 594-597, 598A-598B, 598-601, 616A**6:** 16A, 182A, 494A-494B, 494-495, 496A-496B, 500A-500B, 500-501, 512A-512B, 512-513, 540I, 586A-586B, 586-589, 598A**2. understand and apply geometric properties and relationships (e.g., the Pythagorean Theorem).****5:** 336A-336B, 336-337, 542A-542B, 542-545**6:** 480A-480B, 480-483, 499, 502A-502B, 502-503, 576A-576B, 576-579, 580A-580B, 580-581, 598A**3. represent geometric figures on a coordinate grid.****5:** 725-727**6:** 440B, 443, 444-445, 510-511, 719, 722A**4. explore properties and transformations of geometric figures.****5:** 14A, 164A, 360A-360B, 360-362, 364A-364B, 364-366, 368A-368B, 368-370, 598A

6: 506A-506B, 506-509, 510A-510B, 510-511, 512A, 514A-514B, 514-515, 516A-516B, 516-519, 520A, 564A

5. use geometry as a means of describing the physical world.

5: 32A, 328B, 330, 334-335, 344-345, 370, 372-373, 594B, 596-597, 600

6: 479, 482, 508, 514B, 520-521, 577-578, 580B, 581

Mathematics Content Standard 5

Students demonstrate understanding of measurable attributes and an ability to use measurement processes.

Rationale

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

Benchmarks

Students will:

1. estimate, make, and use measurements to describe, compare, and/or contrast objects in real-world situations.

5: 28A, 68A, 160A, 168A, 218A, 532A, 542A-542B, 542-545, 562A, 570A-570B, 570-571

6: 30A, 358A, 506A, 620A, 636A, 706A

2. select and use appropriate units and tools to measure to a level of accuracy required in a particular setting.

5: 528B, 532A-532B, 532-533, 534A-534B, 534-535, 620

6: 546A-546B, 548, 550A-550B, 550-551

3. apply the concepts of perimeter, area, volume and capacity, weight and mass, angle measure, time, and temperature.

5: 40A, 70A, 260A, 276A, 332A-332B, 332-335, 368A, 526I-526J, 540A-540B, 540-541, 548A-548B, 548-549, 552A, 562A-562B, 562-563, 564A-564B, 564-567, 568A-568B, 568-569, 572A-572B, 592J, 602A-602B, 602-603, 614A, 620A, 646A, 648A, 672A, 676A

6: 14A, 110A, 150A, 160A, 224A, 270A, 280A, 380A, 476A-476B, 476-479, 494A, 496-499, 540I-540J, 554A-554B, 554-557, 564A-564B, 564-567, 570A-570B, 570-571, 628A, 718A

4. demonstrate understanding of the structure and use of systems of measurement, including English and metric.

5: 266A, 400A, 414A, 528A-528B, 528-531, 534A-534B, 534-535, 536A-536B, 536-539, 562A, 614A-614B, 614-615, 616A-616B, 616-617, 620A-620B, 620-621, 622A-622B, 622-623, 718A, 724A

6: 212A, 256A, 516A, 542A-542B, 542-545, 546-547, 552A-552B, 552-553, 722A-722B, 722-723, 724A-724B

5. use the concepts of rates and other derived and indirect measurements.

5: 267, 269, 292A-292B, 292-293, 404A, 490B, 654A-654B, 654-655

6: 306A-306B, 306-309, 328A-328B, 328-329, 354A, 496A

6. demonstrate relationships between formulas and procedures for determining area and volume.

5: 526J, 550A-550B, 550-551, 552A-552B, 552-553, 554A-554B, 554-555, 610A-610B, 610-613

6: 540J, 568A-568B, 568-569, 572A-572B, 572-575, 590A-590B, 590-593, 594A-594B, 594-597, 598B

Mathematics Content Standard 6

The students demonstrate understanding of and an ability to use 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.

Benchmarks***Students will:*****1. systematically collect, organize, and describe data.**

5: 260A-260B, 260-261, 269

6: 624A, 628A, 632A

2. construct, read, and interpret tables, charts, and graphs.

5: 88A, 92A, 152A, 262A-262B, 262-265, 266A-266B, 266-269, 270A-270B, 270-273, 286A-286B, 286-287, 288A, 352A, 356A, 426A, 602A, 670A, 696A

6: 40A, 94A, 98A, 258A, 306A, 366A, 368A, 514A, 552A, 628A-628B, 628-631, 632A-632B, 632-633, 636A-636B, 636-637, 640-641, 642A-642B, 642-645, 654A, 672A, 674A-674B, 674-675, 700A

3. draw inferences, construct, and evaluate arguments based on data analysis and measures of central tendency.

5: 258I, 266B, 267, 271, 283-284, 288A-288B, 288-290

6: 618I, 620A-620B, 622-623, 625-626, 638A-638B, 638-639, 650A-650B, 650-651

4. construct sample spaces and determine the theoretical and experimental probabilities of events.

5: 180A, 302A-302B, 302-305, 412A, 478A, 558A, 594A, 654A, 706A

6: 176A, 324A, 374A, 440A, 476A, 580A, 662A-662B, 662-663, 664A-664B, 664-667, 668A-668B, 668-670, 672A-672B, 672-673, 674A, 710A

5. make predictions based on experimental results or probabilities.

5: 258J, 296A-296B, 296-299

6: 620B, 664A-664B, 664-667

Mathematics Content Standard 7

Students demonstrate understanding of and an ability to use patterns, relations and functions.

Rationale

One of the central themes of mathematics is the study of patterns, relations, and functions. Exploring patterns helps students develop mathematical power and instills in them an appreciation for the beauty of mathematics.

Benchmarks

Students will:

1. describe, extend, analyze, and create a variety of patterns and functions.

5: 106A, 394A, 652-653, 694J, 712A, 720A-720B, 720-721, 728A-728B, 728-729

6: 116A, 140J, 156A-156B, 156-157, 204A, 212A-212B, 212-213, 274B, 384A, 444A-444B, 444-447, 448A-448B, 448-449, 696I-696J, 716A-716B, 716-717, 718-721

2. describe and represent relationships with tables, graphs, and rules.

5: 72A, 106A-106B, 106-107, 108A, 176A-176B, 176-179, 270A, 644I, 652A-652B, 652-653, 694J, 728A-728B

6: 140J, 156A-156B, 157, 298I, 305, 444A-444B, 444-447, 448A-448B, 448-449, 696I-696J, 716A-716B, 716-717, 718A-718B, 718-721

3. analyze functional relationships to explain how a change in one quantity results in a change in another.

5: 176B, 694J

6: 305, 444A-444B, 445-446, 696I-696J, 716A, 716-717, 721, 724B

4. use patterns and functions to represent and solve problems.

5: 66A-66B, 66-67, 84A-84B, 84-85, 136A-136B, 136-137, 138A, 550A, 728-729

6: 156A-156B, 156-157, 204A, 298I, 386A, 444-447, 590A, 696I-696J, 716-717, 720-721

5. describe functions using graphical, numerical, physical, algebraic, and verbal models or representations.

5: 176A-176B, 176-179, 652A-652B, 652-653, 694J, 728A-728B

6: 156A-156B, 305, 696I-696J, 716A-716B, 716-717, 718A-718B, 718-721