

A Correlation of

SCOTT FORESMAN ■ ADDISON WESLEY

Mathematics

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to the

**Wisconsin
WKCE-CRT
Mathematics Assessment
Framework
Grades K-6**



G/M-220

Introduction

This document demonstrates how **Scott Foresman – Addison Wesley Mathematics** meets the objectives of the **Wisconsin WKCE-CRT Mathematics Assessment Framework**. Correlation page references are to the Teacher’s Edition, which contains facsimile Student Edition pages.

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

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.

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
Wisconsin WKCE-CRT Fall Grade 3
Mathematics Assessment Framework**

Grades K - 3

OBJECTIVE: MATHEMATICAL PROCESSES

Sub-skill: Reasoning, communicating, connections, representation, problem solving

OBJECTIVE: NUMBER OPERATIONS AND RELATIONSHIPS

Sub-skill: Concepts

Descriptors, such as but not limited to

- **Apply place-value concepts and numeration to counting, ordering and grouping with numbers less than 1,000 including symbolic renaming and expanded form of two-digit numbers e.g., $24=30-6$; $45=35 + 10$.**

K: Representative Pages: 53A-54, 57A-58, 59A-60, 61A-62, 77A-78, 79A-80, 83A-84, 103A-104, 115A-116, 287A-288

1: Representative Pages: 3A-4, 5A-6, 7A-8, 9A-12, 241A-242, 243A-244, 245A-246, 281A-282, 283A-284, 285A-286

2: Representative Pages: 81A-82, 83A-84, 97A-98, 391A-392, 393A-394, 395A-396, 397A-398, 401A-402, 407A-408, 409A-412

3: 4A-5, 6A-7, 8A-9, 10A-11, 12A-13, 22A-23

- **Read, write, represent numbers in words, numerals, pictures, pictorial, number lines, base-ten blocks, arrays, expanded forms ($24=20+4$) and symbolic renaming e.g., $24=20+?$.**

K: Representative Pages: 55A-56, 57A-58, 59A-60, 61A-62, 77A-78, 81A-82, 85A-86, 103A-104, 107A-108, 117A-118

1: Representative Pages: 3A-4, 5A-6, 7A-8, 9A-12, 241A-242, 243A-244, 245A-246, 281A-282, 283A-284, 285A-286

2: Representative Pages: 81A-82, 83A-84, 97A-98, 391A-392, 393A-394, 395A-396, 397A-398, 401A-402, 407A-408, 409A-412

3: 4A-5, 6A-7, 8A-9, 10A-11, 12A-13, 22A-23

- **Count, order and compare whole numbers less than 1,000, including counting by 2s, 3s, 5s, 10s, 25s and 100s.**

K: Representative Pages: 57A-58, 63A-64, 65A-66, 83A-84, 87A-88, 89A-90, 91A-92, 103A-104, 113A-114, 121A-122

1: Representative Pages: 21A-22, 23A-24, 241A-242, 243A-244, 245A-246, 247A-248, 255A-256, 257A-260, 297A-298, 301A-302

2: 81A-82, 83A-84, 91A-92, 97A-98, 99A-100, 393A-394, 399A-400, 407A-408, 409A-412

3: 18A-20, 22A-23, 259, 281

- **Count, compare and make change using a collection of coins (up to one dollar) and one-dollar bills.**

K: 179A-180, 181A-182, 183A-184, 185A-186, 187A-188, 189A-190

1: 331A-332, 333A-334, 335A-336, 337A-338, 343A-344, 345A-346, 347A-350, 353A-354

2: 109A-110, 111A-112, 113A-114, 115A-116, 117A-118, 119A-120, 121A-122, 123A-124

3: 36A-39, 40A-41

- **Identify a fractional part of a collection/set and read, write and represent fractional parts of a whole e.g., $\frac{1}{4}$, $\frac{1}{2}$.**

K: 213A-214, 215A-216, 217A-218

1: 181A-182, 183A-184, 185A-186, 187A-188, 189A-190

2: 269A-270, 271A-272, 277A-278

3: 498A-501, 502A-503, 516A-517, 518A-519

Sub-skill: Computation***Descriptors, such as but not limited to***

- **Apply addition and subtraction in everyday situations using concrete objects and solve one-step word problems with single or double digits including regrouping.**

K: Representative Pages: 225A-226, 227A-228, 245A-246, 247A-248, 251A-252, 255A-256, 257A-258, 265A-266, 271A-272, 273A-274

1: Representative Pages: 45A-46, 49A-50, 53A-56, 61A-62, 65A-66, 95A-96, 105A-106, 127A-128, 463A-464, 477A-480

2: Representative Pages: 3A-4, 9A-10, 15A-16, 17A-18, 25A-26, 47A-48, 53A-56, 63A-64, 179A-180, 215A-216

3: 126A-127, 128A-131, 132A-135, 146A-147, 148A-149, 150A-151, 152A-155, 156A-157

- **Solve single and double-digit addition and subtraction problems with regrouping in horizontal format in problems with and without context.**

K: Representative Pages: 225A-226, 227A-228, 245A-246, 247A-248, 251A-252, 255A-256, 257A-258, 265A-266, 271A-272, 273A-274

1: Representative Pages: 95A-96, 97A-98, 103A-104, 107A-110, 127A-128, 129A-132, 463A-464, 465A-466, 475A-476, 477A-480

2: Representative Pages: 9A-10, 17A-18, 53A-56, 175A-176, 177A-178, 179A-180, 211A-212, 213A-214, 215A-216, 217A-220

3: 126A-127, 128A-131, 132A-135, 146A-147, 148A-149, 150A-151, 152A-155, 156A-157

- **Demonstrate understanding of the concept of division as repeated subtraction, partitioning/sharing or measuring (dividend up to 30 and divisors up to 5).**

K: 213A-214, 215A-216, 217A-218

1: 181A-182, 191A-192

2: 483A-484, 485A-486

3: 370A-371, 372A-373

- **Demonstrate understanding of multiplication as grouping or repeated addition.**

1: Can be developed from 255A-256, 157A-160
2: 467A-468, 469A-470
3: 260A-261, 262A-265

- **In context, demonstrate the concept of multiplication as grouping or repeated addition with products up to 50.**

1: Can be developed from 255A-256, 257A-260
2: 467A-468, 469A-470
3: 260A-261, 262A-265, 266A-269

- **Use fractions to represent quantities when solving problems involving equal sharing or partitioning.**

K: 213A-214, 215A-216, 217A-218
1: 181A-182, 191A-192
2: 269A-270, 277A-278, 483A-484

3: 370A-371, 498A-501, 516A-517, 518A-519

- **Estimate sums to tens and hundreds and differences of ten.**

2: 135A-136, 137A-138, 139A-140, 141A-142, 145A-146, 147A-148, 149A-150, 191A-192, 229A-230
3: 80A-81, 82A-85, 86A-89, 90A-91, 94A-95, 96A-97, 98A-101, 160A-161

- **Determine reasonableness of answers.**

1: 62, 444, 474
2: 18, 150, 180, 214
3: 81, 84

OBJECTIVE: GEOMETRY**Sub-skill: Describing figures**

Descriptors, such as but not limited to

- **Identify pattern block shapes e.g., triangle, hexagon, trapezoid and parallelogram.**

K: 203A-204, 205A-206

1: 165A-166, 167A-168, 169A-170

2: 249A-250, 255A-256

3: 446A-449, 450A-453, 454A-455

- **Identify, describe and compare properties of 2-and 3-dimensional regular figures by comparing sides, faces, corners, and edges of circles, squares, triangles, rectangles, spheres, cubes, cylinders, pyramids and rectangular prisms.**

K: 197A-198, 199A-200, 201A-202, 203A-204, 205A-206

1: 157A-158, 159A-160, 161A-162, 165A-166, 167A-168, 169A-170

2: 247A-248, 249A-250

3: 428A-431, 432A-435, 446A-449, 450A-453, 454A-455

Sub-skill: Spatial relationships and transformations

Descriptors, such as but not limited to

- **Identify 2-dimensional geometric shapes created by combining or decomposing other shapes e.g., square/triangles; trapezoid/ rhombus, triangle; hexagon/triangles, rhombus, trapezoid.**

K: 209A-210

1: 177A-178

2: 255A-256

3: Can be developed from 446A-449, 450A-453, 454A-455

- **Apply concepts of single-motion geometry e.g., slides, flips and turns to match two identical shapes.**

K: 207A-208

1: 173A-176

2: 259A-260

3: 456A-459

Sub-skill: Coordinate systems***Descriptors, such as but not limited to***

- Use simple 2-dimensional coordinate systems to find locations on maps and to represent points and simple figures with coordinates of letters and numbers.

1: 315A-316

2: 325A-326

3: 218A-221, 222A-223

OBJECTIVE: MEASUREMENT**Sub-skill: Measurable attributes*****Descriptors, such as but not limited to***

- Describe attributes of length, time and temperature and identify appropriate units to measure them e.g., units to include: inches, feet, yards, centimeters, seconds, minutes, hours, days, months, years and degrees F/C.

K: 139A-140, 141A-142, 143A-144, 153A-154, 161A-162, 165A-166, 171A-172, 173A-174, 175A-176

1: 205A-206, 209A-210, 211A-214, 225A-226, 227A-228, 365A-368, 371A-372, 373A-374, 375A-376, 395A-396

2: 291A-292, 293A-294, 295A-296, 303A-304, 341A-342, 343A-344, 345A-346, 347A-350, 369A-370

3: 192A-195, 196A-197, 200A-201, 532A-533, 534A-535, 536A-537, 538A-539, 582A-583, 584A-587, 696A-697

- Compare attributes of length and weight by observation or actual measurements.

K: 133A-134, 135A-136, 149A-150

1: 365A-368, 369A-370, 371A-372, 373A-374, 375A-376, 389A-390, 391A-392, 393A-394

2: 341A-342, 343A-344, 345A-346, 347A-348, 363A-364, 365A-366, 367A-368

3: 532A-533, 534A-535, 536A-537, 538A-539, 582A-583, 584A-587, 690A-693, 694A-695

Sub-skill: Direct measurement***Descriptors, such as but not limited to***

- Read and interpret measuring instruments to determine the measurement of objects with non-standard and standard units to the nearest centimeter or 1/2-inch.

K: 139A-140, 141A-142

1: 365A-368, 371A-372, 373A-374, 375A-376

2: 341A-342, 343A-344, 345A-346, 347A-350

3: 532A-533, 534A-535, 536A-537, 538A-539, 582A-583, 584A-587

- Read thermometers to the nearest 5 degrees F/C.

K: 153A-154

1: 395A-396

2: 369A-370

3: 696A-697

- Tell time to the nearest minute using analog and digital clocks and translate time on both analog and digital clocks.

K: 173A-174, 175A-176

1: 205A-206, 207A-208, 209A-210, 211A-214

2: 291A-292, 293A-294, 295A-296, 297A-298, 301A-302

3: 192A-195, 196A-197

- Investigate measurements of area.

K: 143A-144

1: Can be developed from material on perimeter 377A-378

2: 351A-352

3: 468A-471

Sub-skill: Indirect measurement***Descriptors, such as but not limited to***

- Apply estimation techniques using non-standard units.

K: 141A-142, 147A-148, 151A-152

1: 365A-368, 371A-372, 373A-374, 375A-376, 383A-384, 389A-390

2: 341A-342

3: 533, 535, 582, 628, 681, 682, 685, 691, 697

OBJECTIVE: STATISTICS AND PROBABILITY**Sub-skill: Data analysis and statistics**

Descriptors, such as but not limited to:

- **Work with data in the context of real-world situations by determining what data to collect and when and how to collect it to answer questions.**

K: 29A-30, 31A-32, 33A-34, 67A-68

1: 307A-308, 309A-310, 311A-312, 313A-314, 315A-316

2: 311A-312, 313A-314, 315A-316, 319A-320, 321A-322, 323A-324, 325A-326, 327A-328

3: 204A-207, 208A-211, 212A-215, 218A-221, 222A-223, 226A-227, 228A-231, 232A-235, 236A-237

- **Collect, organize and display data in simple bar graphs and charts including translating data from one form to the other.**

K: 29A-30, 31A-32, 33A-34, 67A-68

1: 307A-308, 309A-310, 311A-312, 313A-314, 315A-316

2: 311A-312, 313A-314, 315A-316, 319A-320, 321A-322, 323A-324, 325A-326, 327A-328

3: 204A-207, 208A-211, 212A-215, 218A-221, 222A-223, 226A-227, 228A-231, 232A-235, 236A-237

- **Draw reasonable conclusions based on simple interpretations of data.**

K: 29A-30, 31A-32, 33A-34, 67A-68

1: 307A-308, 309A-310, 311A-312, 313A-314, 315A-316

2: 311A-312, 313A-314, 315A-316, 319A-320, 321A-322, 323A-324, 325A-326, 327A-328

3: 204A-207, 208A-211, 212A-215, 218A-221, 222A-223, 226A-227, 228A-231, 232A-235, 236A-237

- **Read, use information and draw reasonable conclusions from data in graphs, tables, charts and Venn diagrams.**

K: 29A-30, 31A-32, 33A-34, 67A-68

1: 307A-308, 309A-310, 311A-312, 313A-314, 315A-316

2: 311A-312, 313A-314, 315A-316, 319A-320, 321A-322, 323A-324, 325A-326, 327A-328

3: 204A-207, 208A-211, 212A-215, 218A-221, 222A-223, 226A-227, 228A-231, 232A-235, 236A-237

Sub-skill: Probability*Descriptors, such as but not limited to*

- Determine if the occurrence of future events are more, less or equally likely to occur.

1: 401A-402, 403A-404

2: 373A-374, 375A-376

3: 700A-701, 702A-703, 704A-707

- Choose a fair and an unfair spinner.

1: Can be developed from 401A-402, 403A-404

2: 373A-374, 375A-376

3: 702A-703

OBJECTIVE: ALGEBRAIC RELATIONSHIPS**Sub-skill: Patterns, relations and functions***Descriptors, such as but not limited to*

- Recognize, extend, describe, create and replicate a variety of patterns including attribute, number and geometric patterns, focusing on relationships within patterns as well as extending patterns e.g., patterns and relationships represented with pictures, tables and charts; “what’s-my-rule?” patterns using addition and subtraction rules.

K: 35A-36, 37A-38, 39A-40, 41A-42, 43A-44, 45A-46, 95A-96, 297A-298

1: 27A-28, 29A-30, 243A-244, 255A-256, 257A-260, 261A-262

2: 99A-100, 413A-414

3: 8A-9, 24A-27, 228A-289, 332A-335, 340A-341, 344A-345, 402A-403

- Determine odd or even with a total set of 12 or less.

1: 265A-266

2: 101A-102

3: 24, 258, 276

Sub-skill: Expressions, equations and inequalities***Descriptors, such as but not limited to***

- Demonstrate an understanding that the “=” sign means “the same as” by solving open or true/false number sentences.

K: 255A-256, 275A-276

1: 49A-52, 57A-58, 65A-68, 133A-134, 297A-298

2: 5A-8, 9A-10, 17A-18, 29A-30, 57A-58, 221A-222, 485A-486

3: 70A-71, 76A-77, 168A-169, 384A-385

- Use notation to represent mathematical thinking: letter or box (variable); operation symbols (+, -, =).

K: 251A-252, 255A-256, 271A-272, 275A-276

1: 49A-50, 51A-52, 57A-58, 65A-66, 67A-68, 133A-134, 297A-298

2: 5A-8, 9A-10, 17A-18, 29A-30, 57A-58, 221A-222, 485A-486

3: 70A-71, 76A-77, 168A-169, 384A-385

Sub-skill: Properties***Descriptors, such as but not limited to***

- Use properties or relational thinking to reason about what number goes in a box to make a number sentence true, e.g., zero property $12 + 0 = \text{box}$, adding 1 to any number, commutative property for addition single-digits, place value in 1's and 10's.

1: 51A-52, 93A-94, 263A-264, 301A-302, 343A-344, 345A-346, 459A-460

2: 23A-24, 49A-50, 187A-188, 473A-474

3: 66A-69, 262A-265, 286A-287, 342A-343

- Use simple equations in a variety of ways.

K: Can be developed from 255A-256, 275A-276

1: Can be developed from 49A-50, 51A-52, 57A-58, 65A-66, 67A-68, 133A-134

2: Can be developed from 5A-6, 9A-10, 221A-222, 469A-470, 485A-486

3: 70A-71, 76A-77, 168A-169, 384A-385

**Scott Foresman – Addison Wesley Mathematics
to the
Wisconsin WKCE-CRT Fall Grade 4
Mathematics Assessment Framework**

Grade Four

OBJECTIVE: MATHEMATICAL PROCESSES

Sub-skill: Reasoning, communicating, connections, representation, problem solving

OBJECTIVE: NUMBER OPERATIONS AND RELATIONSHIPS

Sub-skill: Concepts

Descriptors, such as but not limited to

- **Apply place-value concepts and numeration to counting, ordering and grouping with numbers less than 10,000 including symbolic renaming and expanded form of three-digit numbers e.g., $243=200 + 40 + 3$.**

4: 4A-7, 8A-9, 10A-11, 16A-19, 22A-23

- **Read, write and represent numbers in words, numerals, pictures, pictorial, number lines, base-ten blocks, arrays, expanded forms ($243=200+40+3$) and symbolic renaming.**

4: 4A-7, 8A-9, 10A-11, 22A-23, 264A-267, 320A-323

- **Count, order and compare whole numbers less than 10,000 including counting by 2s, 3s, 5s, 10s, 25s starting with any multiple and 100s starting with any number.**

4: 4A-7, 8A-9, 10A-11, 16A-19, 22A-23

- **Identify name/counting patterns.**

4: 4A-7, 8A-9, 10A-11

- **Count, compare and make change up to \$10.00 using a collection of coins and one-dollar bills.**

4: 30A-31, 32A-33

- Identify a fractional part of a collection/set or parts of a whole and read, write, order and represent unit fractions and part of a set.

4: 500A-501, 502A-503, 524A-527

Sub-skill: Computation

Descriptors, such as but not limited to

- Apply addition and subtraction in everyday situations using concrete objects and solve one-and two-step word problems with single or double digit including regrouping.

4: 76A-79, 80A-81, 82A-85, 86A-89, 100A-101

- Solve double-and triple-digit addition and subtraction problems with regrouping in horizontal and vertical format with and without context.

4: 76A-79, 80A-81, 82A-85, 86A-89, 100A-101

- Demonstrate understanding of the concept of division as repeated subtraction, partitioning/sharing or measuring (dividend up to 45 and divisors up to 5).

4: 146A-147, 148A-149, 372A-373, 374A-377, 380A-383, 386A-389, 390A-391

- Demonstrate understanding of multiplication as grouping or repeated addition or arrays in problems with and without context (without context up to 5×9 ; in context products up to 100).

4: 124A-127, 148A-149, 270A-273, 274A-277

- Use fractions to represent quantities when solving problems involving equal sharing or partitioning including fractions less than one as well as mixed numbers and represent with shaded circles, rods, squares or pictorial representations of objects (for a set).

4: Representative Pages: 500A-501, 502A-503, 504A-507, 508A-511, 512A-513, 520A-521, 522A-523, 530A-531, 564A-567, 578A-583

- Estimate sums to tens, hundreds and thousands and differences of ten and hundreds.

4: 62A-63, 64A-67, 68A-71, 72A-73

- Determine reasonableness of answers.

4: 101, 286, 333

OBJECTIVE: GEOMETRY

Sub-skill: Describe figures

Descriptors, such as but not limited to;

- Identify pattern block shapes e.g., triangle, hexagon, trapezoid and parallelogram.

4: 434A-437, 438A-439, 444A-447, 448A-449

- Identify, describe and compare properties of 2-and 3- dimensional regular figures by comparing sides, faces, corners and edges of circles, squares, triangles, rectangles, spheres, cubes, cylinders, pyramids and rectangular tetrahedrons.

4: 434A-437, 438A-439, 440A-443, 444A-447, 448A-449

Sub-skill: Spatial relationships and transformations

Descriptors, such as but not limited to

- Identify 2-dimensional geometric shapes created by combining or decomposing other shapes.

4: Can be developed from 438A-439, 444A-447

- Identify cubes and square pyramid shapes from their nets (flat patterns).

4: 434A-437, 471

- Apply concepts of single-motion geometry e.g., slides, flips and turns to match two identical shapes.

4: 452A-455

Sub-skill: Coordinate Systems*Descriptors, such as but not limited to*

- **Identify and use relationships among figures e.g., location, position and intersection.**

4: Can be developed from 212A-215, 440A-443, 452A-455

- **Use simple 2-dimensional coordinate systems to find locations on maps and to represent points and simple figures with coordinates of letters and numbers.**

4: 212A-215

OBJECTIVE: MEASUREMENT**Sub-skill: Measurable attributes***Descriptors, such as but not limited to*

- **Describe attributes of length, time, temperature, liquid capacity, weight, volume and identify appropriate units to measure them e.g., inches, centimeters, miles, feet, yards, millimeters, quarts, cups, gallons, liters, seconds, minutes, hours, days, months, years, pounds, ounces, grams and degrees F/C.**

4: 190A-191, 192A-195, 200A-201, 588A-589, 590A-591, 592A-593, 594A-595, 652A-653, 654A-655, 656A-657, 664A-665

- **Compare attributes of length, volume and weight by observation or actual measurements.**

4: 588A-589, 592A-593, 594A-595, 596A-599, 652A-653, 654A-655, 656A-657, 658A-661

- **Make measurement conversions: feet to yard; inches to feet; minutes to hours; hours to days; months to years; quarts to gallons.**

4: 190A-191, 192A-195, 200A-201, 588A-589, 590A-591, 594A-595, 596A-599, 652A-653, 654A-655, 656A-657, 658A-661

Sub-skill: Direct measurement*Descriptors, such as but not limited to*

- Read and interpret measuring instruments to determine the measurement of objects with non-standard and standard units to the nearest centimeter, 1/2- and 1/4-inch.

4: 588A-589, 590A-591, 652A-653

- Read thermometers to the nearest 5 degrees F/C.

4: 664A-665

- Tell time to the nearest minute and translate time on both analog and digital clocks.

4: 190A-191

- Determine and compare elapsed time in multiples of 15 minutes in problem-solving situations.

4: 196A-197, 198A-199

- Investigate measurements of area and perimeter.

4: 464A-467, 468A-473

Sub-skill: Indirect measurement*Descriptors, such as but not limited to*

- Apply estimation techniques using non-standard units.

4: 600A-601

OBJECTIVE: STATISTICS AND PROBABILITY**Sub-skill: Data analysis and statistics***Descriptors, such as but not limited to*

- **Work with data in the context of real-world situations by formulating questions that lead to data collection and analysis and determining what data to collect and when and how to collect it.**

4: 226A-229, 230A-231

- **Collect, organize and display data in simple bar graphs and charts.**

4: 204A-205, 206A-207, 208A-211, 212A-215, 216A-221, 222A-223, 226A-229, 230A-231

- **Draw reasonable conclusions based on simple interpretations of data.**

4: 226A-229, 230A-231, 232A-233

- **Read, use information and draw reasonable conclusions from data in graphs, tables, charts and Venn diagrams.**

4: 204A-205, 206A-207, 208A-211, 212A-215, 216A-221, 232A-233

Sub-skill: Probability*Descriptors, such as but not limited to*

- **Determine if the occurrence of future events are more, less or equally likely to occur.**

4: 700A-703, 704A-705, 706A-709, 710A-713

- **Design a fair and an unfair spinner.**

4: 700A-703

- **Design and measure the outcome of a simple event using words to describe probability e.g., out of _____ how many chances _____?; chances out of ____?.**

4: 700A-703, 704A-705, 706A-709, 710A-713

OBJECTIVE: ALGEBRAIC RELATIONSHIPS**Sub-skill: Patterns, relations and functions**

Descriptors, such as but not limited to

- Recognize, extend, describe, create and replicate a variety of patterns including attribute, number and geometric patterns focusing on relationships within patterns as well as extending patterns e.g., patterns and relationships represented with pictures, tables and charts; “what’s-my-rule?” patterns using addition and subtraction rules.

4: 4A-7, 8A-9, 10A-11, 90A-91, 128A-131, 136A-137, 256A-257, 314A-315, 366A-367, 406A-407

- Determine odd or even with a total set of 20 or less.

4: 402A-403

Sub-skill: Expressions, equations and inequalities

Descriptors, such as but not limited to

- Demonstrate an understanding that the “=” sign means “the same as” by solving open or true/false number sentences.

4: 94A-95, 96A-97, 98A-99, 100A-101, 160A-163, 166A-167, 396A-399, 690A-691

- Use notation to represent mathematical thinking: letter or box (variable); operation symbols (+, -, =).

4: 94A-95, 96A-97, 98A-99, 100A-101, 160A-163, 166A-167, 396A-399, 690A-691

Sub-skill: Properties

Descriptors, such as but not limited to

- Use properties or relational thinking to reason about what number goes in a box to make a number sentence true e.g., zero property $12 + 0 = \text{box}$, adding 1 to any number, commutative property for addition, place value in 10’s and 100’s ($20 + 5 = 10 + 10 + 5$).

4: 62A-63, 128A-131, 288A-289

- Use simple equations in a variety of ways.

4: 100A-101, 166A-167, 396A-400, 690A-691

**Scott Foresman – Addison Wesley Mathematics
to the
Wisconsin WKCE-CRT Fall Grade 5
Mathematics Assessment Framework
Grade Five**

OBJECTIVE: MATHEMATICAL PROCESSES

Sub-skill: Reasoning, communicating, connections, representation, problem solving

Objective: Number Operations and Relationships

Sub-skill: Concepts

Descriptors, such as but not limited to

- **Apply place values concepts and numeration to pictorial models e.g., (arrays), symbolic renaming e.g., $4,568=5,000-432$ and expanded form e.g., $9,473 = 9,000 + 400 + 70 + 3$ to whole numbers less than 1,000,000 in words, digital value and numbers.**

5: 4A-5, 6A-7, 14A-17

- **Count, read, write, compare, order and represent numbers less than 10,000 using pictures, numbers, arrays, symbols ($<$, $>$, $=$) and words.**

5: 4A-5, 6A-7

- **Identify and use factors and multiples of basic facts and basic divisibility rules e.g., 2, 5, 10, 25.**

5: 162A-163, 202A-203

- **Estimate with visual models or number lines e.g., If the distance from a to b is 1 mile, how far is it from a to c?.**

5: Can be developed from material on number line 8A-11, 404A-405, 430A-431, 712A-715

- **Read, write, represent, count, order, compare and make change using a collection of coins and bills equal to and less than \$20.00.**

5: 148A-151, 160A-161, 232A-233

- Read, write, identify, represent and rename improper fractions; order and compare fractions representing parts of a set and parts of a whole as numbers and visual models with numerators and denominators less than or equal to 10.

5: 394A-397, 398A-399, 400A-401, 404A-405, 410A-411, 412A-413, 416A-417, 418A-419, 420A-423, 430A-432

Sub-skill: Computation

Descriptors, such as but not limited to

- Compute in everyday contexts with one operation (+, -, \times , \div) and in non-contextual problems including: three-and four-digit addition and subtraction with regrouping; multiplication of two-digit by one-digit numbers; division with single-digit divisors and two-digit dividends and with two-step or mixed operation problems with single-digit numbers.

5: Representative Pages: 36A-37, 72A-75, 76A-79, 152A-155, 156A-157, 158A-159, 214A-217, 218A-221, 222A-223, 226A-227

- Use basic multiplication and division facts when solving problems.

5: Representative Pages: 72A-75, 88A-91, 152A-155, 156A-157, 158A-159, 214A-217, 218A-221, 222A-223, 224A-225, 226A-227

- Add and subtract fractions with like denominators and decimals in the context of money.

5: 38A-39, 40A-41, 460A-461

- Estimate multiplication of two-digit by on-digit problems; addition and subtraction of decimals using money and division in context.

5: 28A-31, 38A-39, 40A-41, 68A-69, 70A-71, 138A-143, 204A-209

- Determine reasonableness of answers.

5: 18, 169, 236

OBJECTIVE: GEOMETRY**Sub-skill: Describe figures**

Descriptors, such as but not limited to

- Identify, describe and compare properties of 2-and 3-dimensional figures, comparing sides, faces, corners, vertices and edges of regular figures including parallel and perpendicular lines and line segments.

5: 340A-341, 342A-345, 346A-351, 594A-597, 598A-601

- Determine the number of faces, edges and vertices given an illustration of a 3-dimensional figure.

5: 594A-597, 598A-601

Sub-skill: Spatial relationships and transformations

Descriptors, such as but not limited to

- Use pattern blocks and geoboards to describe, model and construct plane figures.

5: 340A-341, 342A-345, 346A-351

- Identify congruent shapes using figures that have been manipulated by one or two motions (slides, flips and turns).

5: 360A-363, 364A-367

- Identify cubes, rectangular and triangular prisms and rectangular and triangular pyramids from simple nets (flat patterns).

5: 594A-597, 598A-601, 602A-605

- Identify and describe 3-dimensional shapes from multiple perspectives.

5: 594A-597, 598A-601

- Discern a shape with one line of symmetry.

5: 368A-371

- Use slides, flips and turns on figures.

5: 364A-367

Sub-skill: Coordinate systems

Descriptors, such as but not limited to

- State the coordinates of locations or objects on simple maps and grids.

5: 724A-727, 728A-729

- Plot the points on a one-quadrant coordinate grid.

5: 724A-727, 728A-729

OBJECTIVE: MEASUREMENT

Sub-skill: Measurable attributes

Descriptors, such as but not limited to

- Identify appropriate units to measure length, liquid capacity, time, weight, temperature, volume (units to include: inches, feet, yards, centimeters, millimeters, cups, quarts, gallon, liters, seconds, minutes, hours, ounces, pounds, grams, kilograms and degrees F/C).

5: 528A-531, 534A-535, 536A-539, 562A-563, 568A-569, 614A-615, 616A-617, 620A-621, 622A-623

- Compare attributes of length and weight by direct observation or actual measurements.

5: 528A-531, 532A-533, 534A-535, 620A-621, 622A-623, 624A-625

- Make measurement conversions within a system e.g., feet to yards; inches to feet; quart to gallons; millimeters to centimeters; centimeters to millimeters.

5: 528A-531, 534A-535, 536A-539, 614A-615, 616A-617, 620A-621, 622A-623

Sub-skill: Direct measurement***Descriptors, such as but not limited to***

- Read, interpret and use measuring instruments to determine the measurement of objects with standard units to the nearest $\frac{1}{4}$ - inch or $\frac{1}{2}$ - inch or centimeter.

5: 528A-531, 532A-533, 534A-535, 536A-539

- Convert customary units of measure e.g., feet to yards; inches to yards; inches to feet; centimeters to meters; grams to kilograms; quarts to gallons; cups to pints.

5: 528A-531, 534A-535, 536A-539, 614A-615, 616A-617, 620A-621, 622A-623

- Read thermometers to the nearest five degrees F/C and read a scale to the nearest ounce or five grams.

5: 568A-569

- Translate time on an analog clock to a digital clock and vice versa.

5: 562A-563

- Determine and compare elapsed time in problem-solving situations.

5: 564A-567

Sub-skill: Indirect Measurement***Descriptors, such as but not limited to***

- Estimate measurement using U.S customary measurements.

5: 529, 541, 615, 621

- Determine perimeter and area of regular shapes and the area of plane rectangular shapes and area of irregular shapes when given a reference point such as a grid.

5: 540A-541, 548A-549, 550A-551, 552A-553

OBJECTIVE: STATISTICS AND PROBABILITY**Sub-skill: Data analysis and statistics***Descriptors, such as but not limited to*

- **Formulate questions to collect, organize and display data.**

5: 260A-261

- **Read and interpret information from single bar graphs, line plots, picture graphs and Venn diagrams.**

5: 262A-265, 266A-269, 270A-275, 276A-279

- **Use data to predict outcomes or trends from graph or table.**

5: 262A-265, 266A-269, 270A-275, 276A-279, 282A-285

- **Draw conclusions based on data.**

5: 262A-265, 266A-269, 270A-275, 282A-285, 286A-287, 288A-291

- **Describe a given set of data of seven items/numbers or fewer using the terms range, mode and median in problems with and without context.**

5: 282A-285

Sub-skill: Probability*Descriptors, such as but not limited to*

- **Determine if future events are more, less or equally likely, impossible or certain to occur.**

5: 296A-299, 300A-301

- **Predict outcomes of future events and test predictions using data from a variety of sources and words to express probability.**

5: 296A-299, 300A-301, 302A-305

OBJECTIVE: ALGEBRAIC RELATIONSHIPS**Sub-skill: Patterns, relations and functions**

Descriptors, such as but not limited to

- **Recognize, extend, describe, create and replicate a variety of patterns including attribute, numeric and geometric patterns.**

5: 14A-17, 66A-67, 84A-85, 136A-137, 142-143, 144A-145

- **Describe a rule that explains a functional relationship or pattern using addition, subtraction or multiplication rules and regressions.**

5: 14A-17, 66A-67, 84A-85, 136A-137, 142-143, 144A-145

- **Determine a future event in a pattern up to the eighth item when given the first five.**

5: 14A-17, 66A-67, 84A-85, 136A-137, 142-143, 144A-145

- **Represent patterns and relationships with pictures, tables and charts.**

5: 14A-17, 66A-67, 84A-85, 136A-137, 142-143, 144A-145

Sub-skill: Expressions, equations and inequalities

Descriptors, such as but not limited to

- **Solve simple one-step open sentences including missing factor in problems with and without context e.g., “box” or letter variable and whole number coefficients.**

5: 108A-109, 696A-699, 700A-701, 702A-703, 706A-709, 728A-729

- **Solve simple one-step open sentences involving all operations in context.**

5: 108A-109, 696A-699, 700A-701, 702A-703, 706A-709, 728A-729

- **Represent problem situations with one-step equations involving multiplication and division with simple open sentences.**

5: 108A-109, 696A-699, 700A-701, 702A-703, 706A-709, 728A-729

- **Demonstrate a basic understanding of equality and inequality using symbols (<, >, =) with all operations.**

5: 108A-109, 696A-699, 700A-701, 702A-703, 706A-709, 728A-729

Sub-skill: Properties

Descriptors, such as but not limited to

- **Use the commutative property of multiplication with positive single digits.**

5: 66A-67

- **Use the inverse relationship of division and multiplication with single and whole digits.**

5: 132A-135, 152A-155, 696A-699

- **Demonstrate understanding of order of operations by solving two-step open sentences involving all operations.**

5: 172A-173

**Scott Foresman – Addison Wesley Mathematics
to the
Wisconsin WKCE-CRT Fall Grade 6
Mathematics Assessment Framework**

Grade Six

OBJECTIVE: MATHEMATICAL PROCESSES

Sub-skill: Reasoning, communicating, connections, representation, problem solving

OBJECTIVE: NUMBER OPERATIONS AND RELATIONSHIPS

Sub-skill: Concepts

Descriptors, such as but not limited to

- **Apply place values concepts and numeration to pictorial models (e.g., arrays), symbolic renaming e.g., $(4,568=5,000-432)$ and expanded form e.g., $(9,473 = 9,000 + 400 + 70 + 3)$ to whole numbers less than 10,000,000 in words, digital value and numbers.**

6: 4A-7, 8A-11

- **Count, read, write, compare, order and represent numbers less than 100,000 using pictures, numbers, arrays, symbols ($<$, $>$, $=$) and words.**

6: 4A-7, 8A-11, 12A-13

- **Identify prime, composite, multiples, common multiples and factors, least common multiple through 24 and greatest common factor through 50; recognize divisibility potential of numbers (1-10).**

6: 142A-145, 146A-149, 150A-151, 152A-155

- **Read, write, identify, represent, order and compare monetary units as parts of a dollar and benchmark percents of a whole with visual models.**

6: 354A-357, 358A-361, 370A-373, 374A-379, 380A-383, 386A-387

- Read, write, identify, order, compare and represent equivalent and mixed fractions with visuals using parts of a whole and parts of a set; rename improper fractions to mixed numbers and rename to lowest terms; identify and represent equivalence between fractions, percents, and decimals.

6: 160A-163, 164A-167, 172A-175, 168A-169, 176A-179, 358A-361

- Demonstrate basic understanding of proportionality using scale-map and other proportional contexts.

6: 316A-317, 318A-321, 322A-323, 330A-333

Sub-skill: Computation

Descriptors, such as but not limited to

- Compute in everyday contexts with one operation (+, -, \times , \div) and in non-contextual problems including: three and four-digit addition and subtraction with regrouping; multiplication of three-digit by two-digit numbers; division with single-digit divisors and four-digit dividends with two-step or mixed operation problems.

6: 48A-51, 86A-89, 90A-93, 94A-97

- Use basic multiplication and division facts when solving problems.

6: 90A-93, 94A-97, 106A-109, 248A-251, 252A-255, 258A-259, 266A-269

- Add and subtract fractions with unlike denominators; rename improper fractions.

6: 168A-169, 206A-211

- Compute with decimals in the context of money and make change.

6: 86A-89, 90A-93, 94A-97, 100A-103

- Estimate using basic whole number operations and benchmark fractions and benchmark decimals.

6: 16A-17, 18A-19, 30A-31, 32A-35, 82A-83, 170A-171, 216A-217, 226A-227

- **Determine reasonableness of answers.**

6: Can be developed from material on estimation 16A-17, 18A-19, 30A-31, 32A-35, 82A-83, 170A-171, 216A-217, 226A-227

OBJECTIVE: GEOMETRY

Sub-skill: Describing figures

Descriptors, such as but not limited to

- **Identify and name regular polygons with 3, 4, 5, 6 or 8 sides.**

6: 494A-495, 496A-499, 500A-501

- **Identify lines and line segments in a plane figure.**

6: 472A-475, 494A-495, 496A-499, 500A-501

- **Classify by characteristics of angles (acute, obtuse and right) in plane figures and describe rays found in open-angle situations.**

6: 472A-475, 476A-479, 494A-495, 496A-499, 500A-501

Sub-skill: Spatial relationships and transformations

Descriptors, such as but not limited to

- **Identify congruence and/or similarity between figures.**

6: 506A-509

- **Identify, describe and compare cubes, rectangular and triangular prisms and rectangular and triangular pyramids from nets (flat patterns).**

6: 586A-589, 590A-593

- **Identify and describe 3-dimensional shapes from multiple perspectives.**

6: 586A-589

- Identify lines of symmetry and the number of lines of symmetry in figures.

6: 514A-515

- Design shapes that have at least one line of symmetry.

6: 514A-515

- Use slides, flips and turns on figures.

6: 510 A-511, 512A-513

Sub-skill: Coordinate systems

- Identify the coordinates of locations or objects on simple one quadrant grids using numbers only for coordinates, e.g. (3, 2).

6: 440A-443, 448A-449

- Identify the fourth coordinate pair when given three vertices of a quadrilateral on a coordinate grid.

6: 440A-443, 448A-449

OBJECTIVE: MEASUREMENT

Sub-skill: Measurable attributes

Descriptors, such as but not limited to

- Identify appropriate units to measure length, liquid capacity, time, weight, temperature, volume (units to include: inches, feet, yards, centimeters, millimeters, cups, quarts, gallons, liters, seconds, minutes, hours, ounces, pounds, gram, kilograms including mixed measures e.g., 1 foot, 3 inches; 1 hour, 15 minutes) and degrees F/C.

6: 542A-545, 546A-549, 550A-551

- Compare attributes of length to the nearest 1/4-inch, volume and weight to the nearest pound by direct observation or actual measurements.

6: 542A-545, 546A-549, 550A-551

- **Convert measurement within a system: feet to yards; inches to feet; quarts to gallons; millimeters to centimeters.**

6: 542A-545, 546A-549, 550A-551, 552A-553

Sub-skill: Direct measurement

Descriptors, such as but not limited to

- **Read and interpret measuring instruments to determine the measurement of objects with standard units (U.S. customary).**

6: 542A-545, 546A-549, 550A-551

- **Convert customary units of measure e.g., feet to yards; inches to yards; inches to feet; centimeters to meters; grams to kilograms; quarts to gallons; cups to pints.**

6: 542A-545, 546A-549, 550A-551, 552A-553

- **Measure to the 1/4-inch, 1/8-inch, centimeter or millimeter.**

6: 542A-545, 546A-549, 550A-551

- **Determine and compare elapsed time in problem-solving situations.**

6: 554A-559, 560A-561

Sub-skill: Indirect measurement

Descriptors, such as but not limited to

- **Estimate measurements using U.S. customary measurement.**

6: 542A-545, 546A-549

- **Determine the area of regular shapes including right triangles.**

6: 568A-569, 570A-571, 572A-575

- **Determine actual distance between two points using a scale.**

6: 330A-333

OBJECTIVE: STATISTICS AND PROBABILITY**Sub-skill: Data analysis and statistics***Descriptors, such as but not limited to*

- Describe data using mean, median and mode.

6: 624A-627

- Extract, interpret and analyze data from single bar graphs, tables and charts, line plots, context, circle graphs and Venn diagrams.

6: 620A-623, 624A-627, 628A-631, 632A-633, 636A-637, 638A-641, 642A-647, 650A-651

- Use data to predict outcomes or trends from graphs and tables.

6: 620A-623, 624A-627, 628A-631, 632A-633, 636A-637, 638A-641, 642A-647, 650A-651

- Draw conclusions based on data.

6: 620A-623, 624A-627, 628A-631, 632A-633, 636A-637, 638A-641, 642A-647, 650A-651

- Describe a given set of data of ten or fewer items/numbers using the terms mean, median, mode and range to extract information from organized charts, tables, graphs and Venn diagrams in problems with and without context.

6: 624A-627

Sub-skill: Probability*Descriptors, such as but not limited to*

- Determine the likelihood of future events, predict outcomes of future events and test predictions using data from a variety of sources.

6: 662A-663, 664A-667

- Determine the probability of events in context using words, percents or fractions.

6: 662A-663, 664A-667, 668A-671, 672A-673

- Describe and determine the number of combinations of three items.

6: 654A-657, 658A-661

OBJECTIVE: ALGEBRAIC RELATIONSHIPS

Sub-skill: Patterns, relations and functions

Descriptors, such as but not limited to

- Recognize, extend, describe, create and replicate a variety of patterns including attribute, numeric and geometric patterns.

6: 212A-213, 444A-447

- Describe a rule that explains a functional relationship or pattern using addition, subtraction or multiplication rules and regressions.

6: 212A-213, 444A-447

- Determine a future event in a pattern up to the tenth item when given the first five.

6: 212A-213, 444A-447

- Represent patterns and relationships with pictures, table and charts.

6: 212A-213, 444A-447

Sub-skill: Expressions, equations and inequalities

Descriptors, such as but not limited to

- Solve one-step equations with “box” variable and whole number coefficients in problems with and without context.

6: 48A-51, 112A-113, 116A-119, 276A-277, 430A-431, 712A-715, 718A-721

- **Solve two-step multi-operation equations with “box” or letter variable and whole number coefficients.**

6: 48A-51, 112A-113, 116A-119, 276A-277, 430A-431, 712A-715, 718A-721

- **Solve simple two-step, two operation patterns.**

6: 212A-213, 444A-447

- **Solve two-step open sentences involving all operations.**

6: 48A-51, 112A-113, 116A-119, 276A-277, 430A-431, 712A-715, 718A-721

- **Demonstrate basic understanding of equality and inequality using symbols (<, >, =) with mixed operations.**

6: 48A-51, 112A-113, 116A-119, 276A-277, 430A-431, 700A-703, 712A-715, 718A-721

Sub-skill: Properties

Descriptors, such as but not limited to

- **Use the commutative property of multiplication with positive single digits.**

6: 28A-29

- **Use the inverse relationship of division and multiplication with single whole digits.**

6: 700A-703

- **Evaluate two-step numerical expressions using correct order of operations.**

6: 24A-27, 40A-43, 44A-47, 274A-275, 418A-421, 422A-425, 426A-427

- **Demonstrate understanding of distributive property.**

6: 30A-31

• **Demonstrate understanding of order of operations by solving two-step open sentences involving all operations.**

6: 24A-27, 48A-51, 112A-113, 116A-119, 276A-277, 430A-431, 712A-715,
718A-721