

A Correlation of

SCOTT FORESMAN ■ ADDISON WESLEY

Mathematics

to the

**Oregon
Grade-Level Foundations**

Grades K-6



S/M-129

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 Oregon Grade – Level Foundations. 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.

Table of Contents

Kindergarten.....	1
Grade One.....	5
Grade Two.....	11
Grade Three.....	21
Grade Four.....	30
Grade Five.....	41
Grade Six	51

**Scott Foresman – Addison Wesley Mathematics
to the
Oregon Grade-Level Foundations
Kindergarten**

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Calculations and Estimations	
Understand numbers, ways of representing numbers, relationships among numbers, and number systems	<p><u>NUMBERS</u></p> <p>Read, write, order, and identify whole numbers less than 10 K: 53-54, 55-56, 57-58, 59-60, 61-62, 65-66, 77-78, 79-80</p> <p>Use words such as before and after to describe relative position in a sequence of whole numbers on a number line up to 10 (e.g., 5 is before 6) K: 91-92, 113A-113B, 113-114</p> <p>Recognize whole numbers less than 10 in random order K: 53-54, 77-78, 79-80, 83-84</p> <p>Use objects or pictures to decompose whole numbers K: 225-226, 227-228, 229-230, 231-232</p> <p>Explore and differentiate coins: penny, nickel, dime, and quarter K: 179-180, 181-182, 183-184, 187-188</p> <p>Count forward by one beginning with any number less than 30 K: 53-54, 77-78, 79-80, 83-84, 115-116</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Compute fluently and make reasonable estimates	<p><u>COMPUTATION AND ESTIMATION</u></p> <p>Add and subtract pairs of numbers using less than 10 concrete objects K: 245-246, 247-248, 249-250, 251-252, 253-254</p> <p>Mentally find one more or one less than a single-digit number K: 234A-234B, 235-236, 237-238</p> <p>Judge whether sets of objects have less than, more than or the same number as a reference set K: 119A-119B, 119-120</p>
Statistics and Probability	
Select and use appropriate statistical methods to analyze data	<p><u>COLLECT AND DISPLAY DATA</u></p> <p>Identify “how many more or less” and how many all together from pictographs and bar graphs K: 29-30, 31-32, 33-34</p>
Algebraic Relationships	
Understand patterns, relations, and functions	<p><u>PATTERNS AND FUNCTIONS</u></p> <p>Sort, classify, and order objects by size, color, shape, or other properties K: 11-12, 13-14, 15-16, 17-18</p> <p>Identifies objects that do not belong to a particular group K: R2, 11-12, 13-14, 15-16, 17-18</p> <p>Copy and extend patterns using concrete models K: 26, 35-36, 37-38, 39-40, 43, 44, 45-46, 47-48</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Represent and analyze mathematical situations and structures using algebraic symbols	<p><u>ALGEBRAIC RELATIONSHIPS</u></p> <p>Compare two or more sets of 10 or fewer objects and identify which set is equal to, more than, or less than the other K: 29-30, 31-32, 33-34</p>
Measurement	
Understand measurable attributes of objects and the units, systems, and processes of measurement	<p><u>UNITS AND TOOLS</u></p> <p>Sort and classify objects to show different attributes that can be measured in different ways (e.g., length, weight, size) K: 133-134, 135-136, 145-146</p>
Apply appropriate techniques, tools, and formulas to determine measurements	<p><u>DIRECT AND INDIRECT MEASUREMENT</u></p> <p>Understand concepts related to time of day: morning, afternoon, evening, day, night K: 171A-171B, 171-172</p> <p>Compare the time of occurrence of two events using the terms before or after K: 163-164, 169A-169B, 169-170</p>
Geometry	
Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships	<p><u>PROPERTIES AND RELATIONSHIPS</u></p> <p>Identify basic shapes (e.g., square, circle, triangle, rectangle, and oval) K: 203A-203B, 203-204, 205-206</p> <p>Match objects to outlines of their shapes K: 201A-201B, 201-202</p> <p>Classify and sort geometric shapes by attributes (e.g., number of sides, shape, size) K: Readiness: 11-12, 13-14, 15-16, 17-18</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Use visualization, spatial reasoning, and geometric modeling to solve problems	<p><u>MODELING</u></p> <p>Create shapes with manipulatives (e.g., pattern blocks or tiles)</p> <p>K: 203B, 207B, 209A-209B, 209-210</p>
Mathematical Problem Solving	<i>There are currently no Oregon kindergarten grade-level foundations for Mathematical Problem Solving.</i>

**Scott Foresman – Addison Wesley Mathematics
to the
Oregon Grade-Level Foundations
Grade One**

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Calculations and Estimations	
Understand numbers, ways of representing numbers, relationships among numbers, and number systems	<p><u>NUMBERS</u></p> <p>Read, write, order, and identify whole numbers less than 100 1: 29-30, 241-242, 245-246, 297-298, 301-302</p> <p>Order 1st through 10th in numeric or word form 1: 31-32, 267-268, 369</p> <p>Count and group objects in ones and tens 1: 247-248, 283-284, 287-288</p> <p>Use objects or pictures to decompose whole numbers to 10 (e.g., $5 = 4 + 1$, $5 = 2 + 3$) 1: 11-12, 13-14, 15-16, 17-18, 21-22</p> <p>Identify, order, and compare coins by making equivalent amounts up to 25 cents 1: 331-332, 33-334, 335-336, 337-338</p> <p>Demonstrate counting skills of skip counting by 5 and 10 to 100 1: 243-244, 255-256, 257-258, 273</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
<p>Compute fluently and make reasonable estimates</p>	<p><u>COMPUTATION AND ESTIMATION</u></p> <p>Add and subtract with concrete objects 1: 45-46, 46-47, 49-50, 63-64, 417-418</p> <p>Apply with fluency sums to nine and related subtraction facts 1: 125-126, 127-128, 137-138, 139-140</p> <p>Find sums and differences less than 100 1: 91-92, 106-107, 125-126</p> <p>Make change for amounts to 25 cents 1: 339-340, 341, 343-344</p> <p>Mentally add 10 to a single-digit number 1: 241-242, 243-244, 273-274</p> <p>Estimate number of objects and check reasonableness of answers by counting up to 20 objects 1: 249-250, 253, 272</p>
<p>Understand meanings of operations and how they relate to one another</p>	<p><u>OPERATIONS AND PROPERTIES</u></p> <p>Represent situations using models of addition and subtraction (e.g., putting together or adding on, taking away, finding the difference, comparing) 1: 45-46, 61-62, 439-440, 441-442</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Statistics and Probability	
Select and use appropriate statistical methods to analyze data	<p><u>STATISTICS</u></p> <p>Identify “how many more or less” and “how many all together” from pictographs and bar graphs 1: 309-310, 311-312, 321</p>
Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them	<p><u>COLLECT AND DISPLAY DATA</u></p> <p>Pose questions and gather data about themselves and their surroundings 1: 309-310, 311-312</p> <p>Sort and classify objects according to their attributes and organize data about the objects into categories 1: 157-158, 307-308</p> <p>Represent data using concrete objects and pictographs 1: 309-310, 321</p>
Develop and evaluate inferences and predictions that are based on data	<p><u>DATA ANALYSIS AND PREDICTIONS</u></p> <p>Answer simple questions related to data displayed in pictographs, including which result occurred the most or least often 1: 309-310, 321</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Algebraic Relationships	
Understand patterns, relations, and functions	<p><u>PATTERNS AND FUNCTIONS</u></p> <p>Sort and classify objects using one or more attributes by observing relationships 1: 157-158, 307-308</p> <p>Identify an element that does not belong in a simple pattern 1: 307-308</p> <p>Supply a missing element in or extend number patterns involving addition or subtraction by a single-digit number 1: 3-4, 5-6, 261-262, 302, 417-417</p> <p>Extend and generate patterns involving three elements sharing a common attribute (e.g., color, number, shape, letter) using concrete models or objects 1: 307-308</p>
Represent and analyze mathematical situations and structures using algebraic symbols	<p><u>ALGEBRAIC RELATIONSHIPS</u></p> <p>Understand the meaning of equals and use the = symbol 1: 417-418, 419-420, 421-422</p> <p>Construct and solve simple number sentences involving sums to 9 and related subtraction facts using concrete objects, pictures, or symbols 1: 83, 91-92, 93-94, 95-96, 422</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Measurement	
Understand measurable attributes of objects and the units, systems, and processes of measurement	<p><u>UNITS AND TOOLS</u></p> <p>Compare and order objects according to measurable attributes (long or short; light or heavy) 1: Related content: 397</p>
Apply appropriate techniques, tools, and formulas to determine measurements	<p><u>DIRECT AND INDIRECT MEASUREMENT</u></p> <p>Identify and name days of the week and months of the year and interpret calendar information (e.g., tomorrow, yesterday, how many Tuesdays are in November) 1: 225-226, 227-228</p> <p>Tell time to the nearest hour using analog and digital clocks 1: 207-208, 209-210, 213-214</p>
Geometry	
Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships	<p><u>PROPERTIES AND RELATIONSHIPS</u></p> <p>Identify, describe, and classify triangles, rectangles, squares, circles, and ovals 1: 165-166, 167-168, 177-178, 179</p> <p>Recognize and identify attributes of two-dimensional geometric shapes in the environment (e.g., make a triangle and a square from pieces of straw and compare how many pieces of straw are used to make each shape) 1: 165-166, 167-168, 177-178</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Use visualization, spatial reasoning, and geometric modeling to solve problems	<p><u>MODELING</u></p> <p>Model triangles, rectangles, squares, circles, and ovals 1: 165-166, 167-168, 177-178, 179</p> <p>Create repeating geometric shapes using manipulatives (e.g., two triangles can make a square) 1: 177-178, 179</p>
Specify locations and describe spatial relationships using coordinate geometry and other representational systems	<p><u>COORDINATE GEOMETRY</u></p> <p>Arrange and describe objects in space by relative position and direction (e.g., near, far, below, above, up, down, behind, in front of, next to, left or right of) 1: Related content: 315-316, 317-318, 321</p>
Mathematical Problem Solving	<i>There are currently no Oregon first grade grade-level foundations for Mathematical Problem Solving.</i>

**Scott Foresman – Addison Wesley Mathematics
to the
Oregon Grade-Level Foundations
Grade Two**

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Calculations and Estimations	
<p>Understand numbers, ways of representing numbers, relationships among numbers, and number systems</p>	<p><u>NUMBERS</u></p> <p>Read, write, order, model, and compare whole numbers less than 100 2: 81-82, 82-83, 85-86, 91-92</p> <p>Read number words less than one hundred and write the corresponding numeric value 2: 85-86, 87-88, 103-104</p> <p>Identify and model the whole number of ones, tens, and hundreds in numbers less than 100 2: 393-394, 395-396, 397-398</p> <p><i>Compose and decompose whole numbers less than one hundred by place value (e.g., 426 = 4-100's, 2-10's, 6-1's)</i> 2: 83-84, 393-394, 395-396, 397-398</p> <p>Order, model, and identify wholes, halves, and fourths using concrete models and visual representations 2: 269-270, 271-272, 273-274</p> <p>Understand a fraction represents subdivisions of a whole into equal parts 2: 269-270, 271-272, 273-274</p> <p>Locate whole numbers on a number line 2: 95-96, 107, 131, 191, 419</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
(continued)	<p>Order and compare coins by making equivalent amounts up to \$1.00 2: 111-112, 113-114, 115-116, 117-118</p> <p>Demonstrate the counting skills of skip counting by 2 to 100 and by 100 to 1000 2: 99-100, 420</p> <p>Determine whether a set of objects has an odd or even number of elements 2: 101-102, 126, 132</p>
<p>Compute fluently and make reasonable estimates</p>	<p><u>COMPUTATION AND ESTIMATION</u></p> <p>Develop and evaluate strategies for adding and subtracting whole numbers 2: 43-44, 45-46, 47-48, 49-50, 51-52, 53-54, 61-62, 63-64</p> <p>Apply with fluency sums to 18 and related subtraction facts 2: 43-44, 45-46, 47-48, 49-50, 51-52, 53-54, 61-62, 63-64</p> <p>Add and subtract pairs of any two digit numbers 2: 135-136, 139-140, 145-146, 147-148, 179-180</p> <p>Find the sum of three or more two-digit numbers 2: 187-188, 268</p> <p>Make change for amounts to \$1.00 2: 119-120, 125</p> <p>Mentally add or subtract multiples of 10 to and from a number 2: 80, 81-82, 427-428</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
(continued)	<p>Identify the most efficient operation (add, subtract, multiply, or divide) for solving a problem 2: 487-488, 489-490, 491</p> <p>Estimate number of objects and check reasonableness of answers by counting up to 100 objects 2: 141-142, 149-150</p> <p>Round one- or two-digit whole numbers to the nearest 10 to estimate sums and differences 2: 191-192, 229-230</p>
Understand meanings of operations and how they relate to one another	<p><u>OPERATIONS AND PROPERTIES</u></p> <p>Understand various meanings of addition and subtraction of whole numbers and the relationship between the operations 2: 49-50, 63-64, 65-66, 227-228</p> <p>Use the commutative $(4+2)=(2+4)$ and associative $(4+3)+7=4+(3+7)$ properties of addition to simplify calculations 2: 27-28, 33</p> <p>Describe the effects of adding or subtracting by a whole number 2: 49-50, 63-64, 65-66, 227-228</p> <p>Demonstrate the zero property for addition and subtraction 2: 26, 30, 39, 46</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Statistics and Probability	
Select and use appropriate statistical methods to analyze data	<p><u>STATISTICS</u></p> <p>Identify "most and least" from data sets that contain more than 10 items (e.g., from a bar graph that shows "how many pockets in our clothing" identify by number "the most pockets" and "the least pockets") 2: 321-322, 328, 331, 333</p>
Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them	<p><u>COLLECT AND DISPLAY DATA</u></p> <p>Ask and answer simple questions related to tallies, charts, and bar graphs 2: 311-312, 313-314, 317, 323-324</p> <p>Record results of probability experiments using tallies or by completing charts 2: 373-374, 375-376</p> <p>Represent and interpret data using tally charts and pictographs 2: 311-312, 313-314, 317, 323-324</p>
Develop and evaluate inferences and predictions that are based on data	<p><u>DATA ANALYSIS AND PREDICTIONS</u></p> <p>Develop inferences about the likelihood of the occurrence of an event based on data collected from activities which have outcomes that depend on chance (e.g., tossing a two-colored counter, using a spinner) 2: 373-374, 375-376, 381</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Algebraic Relationships	
Understand patterns, relations, and functions	<p><u>PATTERNS AND FUNCTIONS</u></p> <p>Sort and classify objects using one or more attributes by observing relationships and making generalizations 2: 265-266, 267</p> <p>Identify, describe, extend, and reproduce a pattern and use it to make predictions and analyze how repeating and growing patterns are generated 2: 157-158, 413-414</p> <p>Supply a missing element in or extend number patterns involving addition or subtraction 2: 157-158, 167, 413-414</p> <p>Use a hundreds chart to generate the patterns in rows, skip counting, decades, columns, and generate arrangements of two-dimensional figures 2: 157-158, 407-408</p>
Represent and analyze mathematical situations and structures using algebraic symbols	<p><u>ALGEBRAIC RELATIONSHIPS</u></p> <p>Describe quantitative relationships using the terms “greater than,” “less than,” and “equal to” and the associated symbols $>$, $<$, $=$ 2: 91-92, 203, .353-354, 399-400, 416</p> <p>Construct and solve simple number sentences involving sums to 18 and related subtraction facts using concrete objects, pictures, or symbols 2: 5-6, 7-8, 9-10, 17-18, 19-20</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Measurement	
<p>Understand measurable attributes of objects and the units, systems, and processes of measurement</p>	<p><u>UNITS AND TOOLS</u></p> <p>Select an appropriate tool and standard unit to measure length, weight, and capacity (volume) of objects larger than the unit tools (e.g., rulers, measuring cups, balances) 2: 341-342, 343-344, 345-346, 355-356, 383</p> <p>Understand that using different measurement units will result in different numerical measurements for the same object 2: 341-342, 343-344, 345-346, 355-356</p> <p>Understand the measurement process (choosing a measurement unit, comparing that unit to the object, and reporting the number of units) 2: 341-342, 343-344, 345-346</p>
<p>Apply appropriate techniques, tools, and formulas to determine measurements</p>	<p><u>DIRECT AND INDIRECT MEASUREMENT</u></p> <p>Demonstrate an understanding of time and use of time relationships (e.g., how many minutes in an hour, days in a week, months in a year) 2: 291-292, 301-302, 303-304, 305-306</p> <p>Tell time to the nearest half hour using analog and digital clocks 2: 291-292, 293-294, 295-296</p> <p>Measure length using multiple copies of units of the same size (such as paper clips) laid end to end 2: 341-342, 361-362</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
(continued)	<p>Estimate length in standard and nonstandard units (e.g., finger lengths, pencil lengths) 2: 341-342, 343-344, 345-346, 379-380</p> <p>Determine the capacity (volume) of an object by counting and filling (e.g., determining how many small containers fit in a larger container, how many scoops of beans in a can?) 2: 355-356, 359-360</p> <p>Estimate capacity (volume) of objects in standard units (e.g., cups in a bowl, cubes in a box) 2: 357-358, 359-360</p> <p>Determine the weight of an object using a balance scale 2: 363-364, 365-366, 267-368</p> <p>Estimate weight of objects 2: 363-364, 365-366, 267-368</p> <p>Find the area of a two-dimensional figure by covering the figure with unit figures (e.g., how many small squares cover a larger shape?) 2: Related content: 351-352</p>
Geometry	
<p>Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships</p>	<p><u>PROPERTIES AND RELATIONSHIPS</u></p> <p>Identify, describe, compare, and classify two-dimensional shapes using appropriate vocabulary (e.g., rhombus, trapezoid, parallelogram) including the faces of three-dimensional objects (e.g., face, base) 2: 247-248, 249-250, 251-252</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
(continued)	<p>Identify attributes of two-dimensional shapes: sides and angles 2: 247-248, 265-266, 267</p>
<p>Use visualization, spatial reasoning, and geometric modeling to solve problems</p>	<p><u>MODELING</u></p> <p>Model and sketch triangles, rectangles, squares, circles, ovals, parallelograms, rhombi, and trapezoids 2: 249-250, 259-260</p> <p>Create new shapes using combinations of known shapes (e.g., two congruent right triangles to form a rectangle) 2: 255-256, 264, 267</p> <p>Recognize two-dimensional geometric shapes in the environment, including the faces of three-dimensional objects (e.g., rectangles on a cereal box), and from different perspectives (e.g., use your mind’s eye to imagine what shapes would be formed if you cut a square diagonally) 2: 247-248, 249-250, 253-254</p>
<p>Specify locations and describe spatial relationships using coordinate geometry and other representational systems</p>	<p><u>COORDINATE GEOMETRY</u></p> <p>Describe, name, and interpret relative positions in space and apply ideas about relative position to maps 2: 325-326</p> <p>Describe, name, and interpret direction and distance in navigating space and apply ideas about direction and distance to maps and routes 2: 325-326</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Apply transformations and use symmetry to analyze mathematical situations	<p><u>TRANSFORMATIONS AND SYMMETRY</u></p> <p>Identify symmetry, patterns, and shapes in everyday surroundings 2: 261-262, 267</p> <p>Create designs with line and rotational symmetry 2: 259-260, 361-262, 267</p> <p>Illustrate reflections (flips), rotations (turns) and translations (slides) using concrete or pictorial models (e.g., paper folding, cut outs, and pattern blocks) 2: 259-260</p>
Mathematical Problem Solving	
Select, apply, and translate among mathematical representations to solve problems	<p><u>CONCEPTUAL UNDERSTANDING</u></p> <p>Interpret the concepts of a problem-solving task and translate them into mathematics 2: 9-10, 57-58, 89-90, 155-156, 197-198, 311-312, 351-352, 439-440</p>
Apply and adapt a variety of appropriate strategies to solve problems	<p><u>PROCESSES AND STRATEGIES</u></p> <p>Choose strategies that can work and then carry out the strategies chosen 2: 9-10, 57-58, 89-90, 155-156, 197-198, 311-312, 351-352, 439-440</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Monitor and reflect on the process of mathematical problem solving	<p><u>VERIFICATION</u></p> <p>Produce identifiable evidence of a second look at the concepts/strategies/calculations to defend a solution 2: 9-10, 57-58, 89-90, 155-156, 197-198, 311-312, 351-352, 439-440</p>
Communicate mathematical thinking coherently and clearly; Use the language of mathematics to express mathematical ideas precisely	<p><u>COMMUNICATION</u></p> <p>Use pictures, symbols, and/or vocabulary to convey the path to the identified solution 2: 9-10, 57-58, 89-90, 155-156, 197-198, 311-312, 351-352, 439-440</p>
Accurately solve problems that arise in mathematics and other contexts	<p><u>ACCURACY</u></p> <p>Accurately solve problems using mathematics 2: 9-10, 57-58, 89-90, 155-156, 197-198, 311-312, 351-352, 439-440</p>

**Scott Foresman – Addison Wesley Mathematics
to the
Oregon Grade-Level Foundations
Grade Three**

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Calculations and Estimations	
<p>Understand numbers, ways of representing numbers, relationships among numbers, and number systems</p>	<p><u>NUMBERS</u></p> <p>Read, write, order, model, and compare whole numbers less than one thousand 3: 2-3, 4-5, 6-7, 18-19, 20-21, 22-23</p> <p>Identify the place value and actual value of digits in a whole number less than one thousand 3: 2, 6-7, 10-11</p> <p>Compose and decompose whole numbers less than one thousand by place value 3: 2, 6-7, 8-9</p> <p>Order, model, compare, and identify commonly used fractions (halves, thirds, fourths, eighths, tenths) using concrete models and visual representations 3: 502-503, 506-507, 508-509</p> <p>Develop understanding of fractions as parts of unit wholes, as parts of a collection, as locations on number lines, and as divisions of whole numbers 3: 498-499, 500-501, 502-503</p> <p>Locate whole numbers and common fractions on a number line 3: 20, 22-23, 24, 191</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
(continued)	<p>Order and compare dollars and coins by making equivalent amounts up to \$10.00 3: 36-37, 38-39, 40-41</p> <p>Demonstrate the counting skills of skip counting as they relate to multiplication facts 3: 277, 282, 286, 288-289</p>
<p>Compute fluently and make reasonable estimates</p>	<p><u>COMPUTATION AND ESTIMATION</u></p> <p>Develop and evaluate strategies for multiplying whole numbers 3: 260-261, 262-263, 264, 268-269, 280-281</p> <p>Add and subtract pairs of up to four digit numbers 3: 126-127, 128-129, 130-131, 132-133, 134-135, 148-149, 150-151, 152-153, 154</p> <p>Develop and acquire efficient strategies for determining multiplication and division facts 0-9 3: 276-277, 278-279, 280-281, 282-283, 286-287, 288-289, 292-293</p> <p>Multiply a two-digit number by a one-digit number 3: 632-633, 634-635, 646, 647</p> <p>Make change for amounts up to \$10.00 3: 40-41, 46, 47, 49</p> <p>Mentally add or subtract multiples of 10, 100, or 1000 to or from a number 3: 94-95, 96-97</p> <p>Identify the operation (add, subtract, multiply, or divide) for solving a problem 3: 346-347, 348-349, 350</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
(continued)	<p>Develop and use strategies (overestimate, underestimate, range of estimates) to make reasonable estimates 3: 86-87, 88, 90-91</p> <p>Recognize which place value will be the most helpful in estimating an answer 3: 86-87, 88-89, 98-99, 100-101</p>
Understand meanings of operations and how they relate to one another	<p><u>OPERATIONS AND PROPERTIES</u></p> <p>Represent situations using models of multiplication and division (e.g., repeated addition, equal groups of objects, arrays, repeated subtraction, equal grouping, sharing equally) 3: 260-261, 262-263, 264-265, 372-373</p> <p>Use the commutative and associative properties of multiplication to simplify calculations 3: 262-263, 264-265, 342-343</p> <p>Describe the effects of multiplying or dividing by a whole number 3: 260-261, 262-263, 264-265, 372-373</p> <p>Demonstrate the zero property for multiplication and identity property for multiplication and division 3: 286-287, 296, 297, 301</p>
Statistics and Probability	
Select and use appropriate statistical methods to analyze data	<p><u>STATISTICS</u></p> <p>Determine the mode and range of a set of data 3: 208-209, 210, 224, 225</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
<p>Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them</p>	<p><u>COLLECT AND DISPLAY DATA</u></p> <p>Ask and answer simple questions that can be answered by collecting, organizing, and displaying data 3: 140-141, 142, 204-205, 206, 208-209, 210, 211, 226-227</p> <p>Represent and interpret data using tally charts, pictographs, and bar graphs, including identifying the mode and range 3: 204-205, 206, 212-213, 214, 216-217, 226-227</p>
<p>Develop and evaluate inferences and predictions that are based on data</p>	<p><u>DATA ANALYSIS AND PREDICTIONS</u></p> <p>Draw conclusions and make predictions and inferences from tally charts, pictographs, or bar graphs 3: 204-205, 206, 212-213, 214, 216-217</p>
<p>Algebraic Relationships</p>	
<p>Understand patterns, relations, and functions</p>	<p><u>PATTERNS AND FUNCTIONS</u></p> <p>Describe, extend, and make generalizations about numeric and geometric patterns (e.g., increasing the number of sides of two-dimensional geometric figures in a sequence; consecutive odd numbers) 3: 24-25, 27, 72-73, 191, 259, 332-333, 334-335</p> <p>Supply a missing element in or determine a rule that extends number patterns involving addition and multiplication by a single-digit number 3: 24-25, 27, 72-73, 259, 332-333, 334-335</p> <p>Generate a pattern or sequence from a verbal, written, and pictorial description 3: 24-25, 27, 72-73, 259, 332-333, 334-335</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
<p>Represent and analyze mathematical situations and structures using algebraic symbols</p>	<p><u>ALGEBRAIC RELATIONSHIPS</u></p> <p>Use letters, boxes, or other symbols to stand for a missing number in simple expressions or equations 3: 74-75, 76-77, 168-169, 291, 614</p> <p>Identify and apply a relationship between two quantities (e.g., If four people can be seated at one table, how many tables are needed to seat 24 people?) 3: 72-73, 78, 79, 110</p>
<p>Measurement</p>	
<p>Understand measurable attributes of objects and the units, systems, and processes of measurement</p>	<p><u>UNITS AND TOOLS</u></p> <p>Select the most appropriate tool and metric unit to measure length, time, weight, and volume 3: 582-583, 584-585, 586-587</p> <p>Compare units of measure between customary and metric systems (e.g., inches > centimeters, liters < gallons) 3: 584-585, 586-587, 590-591</p> <p>Understand and explain the need for using standard units 3: 586-587</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
<p>Apply appropriate techniques, tools, and formulas to determine measurements</p>	<p><u>DIRECT AND INDIRECT MEASUREMENT</u></p> <p>Determine elapsed time for given activities using representations of analog and digital clocks 3: 198-199, 203</p> <p>Tell time to the nearest minute using an analog clock 3: 196-197, 202, 203</p> <p>Describe temperature changes and concepts as they occur in daily situations 3: 696-697, 698</p> <p>Determine measurements of length to the nearest centimeter and nearest meter 3: 582-583, 584-585, 586-587</p> <p>Estimate the length of objects in meters and centimeters 3: 582-583, 584-585, 586-587</p> <p>Determine measurements of volume to the nearest milliliter or liter of measuring cups, beakers, or graduated cylinders 3: 684-685</p> <p>Estimate volume of objects in milliliters and liters 3: 684-685, 698</p> <p>Determine measurements of weight to the nearest gram and kilograms 3: 694-695, 698</p> <p>Estimate weight of objects in grams and kilograms 3: 694-695, 698</p> <p>Find areas of rectangular arrays 3: 468-469, 470-471</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Geometry	
<p>Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships</p>	<p><u>PROPERTIES AND RELATIONSHIPS</u></p> <p>Identify, describe, compare, and classify common three-dimensional geometric objects: cubes, prisms, spheres, pyramids, cones, and cylinders 3: 428-429, 430-431, 432-433</p> <p>Compare and classify solid geometric shapes (e.g., triangular pyramid, cube, rectangular prism) according to the number and shapes of faces, edges, and vertices 3: 428-429, 430-431, 432-433</p> <p>Recognize and identify attributes of three-dimensional geometric shapes (faces, edges, vertices), including attributes of shapes in the environment 3: 428-429, 430-431, 432-433</p>
<p>Use visualization, spatial reasoning, and geometric modeling to solve problems</p>	<p><u>MODELING</u></p> <p>Model three-dimensional shapes including cubes, rectangular prisms, spheres, pyramids, cones, and cylinders 3: 428-429, 430-431, 432-433</p> <p>Put shapes together and take them apart to form other shapes 3: 449, 458</p> <p>Recognize three-dimensional geometric shapes (e.g., cube, cone, cylinder, pyramid, and sphere) in the environment and from different perspectives 3: 428-429, 430-431, 432-433</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Specify locations and describe spatial relationships using coordinate geometry and other representational systems	<p><u>COORDINATE GEOMETRY</u></p> <p>Describe paths for moving from one location to another on a grid 3: 218-219, 220</p>
Apply transformations and use symmetry to analyze mathematical situations	<p><u>TRANSFORMATIONS AND SYMMETRY</u></p> <p>Identify line and rotational symmetry 3: 460-461, 462, 463</p> <p>Predict and describe the results of performing reflections, rotations and translations of triangles 3: 456-457, 458-459, 462, 463</p>
Mathematical Problem Solving	
Select, apply, and translate among mathematical representations to solve problems	<p><u>CONCEPTUAL UNDERSTANDING</u></p> <p>Interpret the concepts of a problem-solving task and translate them into mathematics 3: 76-77, 140-141, 436-437, 528-529</p>
Apply and adapt a variety of appropriate strategies to solve problems	<p><u>PROCESSES AND STRATEGIES</u></p> <p>Choose strategies that can work and then carry out the strategies chosen 3: 76-77, 140-141, 436-437, 528-529</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Monitor and reflect on the process of mathematical problem solving	<p><u>VERIFICATION</u></p> <p>Produce identifiable evidence of a second look at the concepts/strategies/calculations to defend a solution 3: 76-77, 140-141, 436-437, 528-529</p>
Communicate mathematical thinking coherently and clearly; Use the language of mathematics to express mathematical ideas precisely	<p><u>COMMUNICATION</u></p> <p>Use pictures, symbols, and/or vocabulary to convey the path to the identified solution 3: 76-77, 140-141, 436-437, 528-529</p>
Accurately solve problems that arise in mathematics and other contexts	<p><u>ACCURACY</u></p> <p>Accurately solve problems using mathematics 3: 76-77, 140-141, 436-437</p>

**Scott Foresman – Addison Wesley Mathematics
to the
Oregon Grade-Level Foundations
Grade Four**

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Calculations and Estimations	
Understand numbers, ways of representing numbers, relationships among numbers, and number systems	<p><u>NUMBERS</u></p> <p>Read, write, order, model, and compare whole numbers to one million, common fractions, and decimals to hundredths 4: 2E, 2, 4B, 4, 5, 6, 7, 8A, 8, 9, 10B, 10, 11, 14, 15, 16A, 16B, 16, 17, 18, 19, 21, 26, 27, 28-29, 34A, 34B, 34-35, 36, 40-41, 42, 43, 46-47, 48-49, 50, 52, 53, 54, 55, 56-57, 71, 112, 149, 168-169, 178, 189, 244, 500-501, 502-503, 522-523, 524-525, 526, 622, 628-629, 630-631</p> <p>Identify the place value and actual value of digits in a number to one million 4: 2I, 2, 4A, 4, 5, 6, 7, 8B, 8, 9, 10A, 10, 11, 14, 15, 16, 17, 18, 19, 21, 22B, 28-29, 33, 34, 36, 41, 46-47, 48-49, 52, 56, 60, 143, 147, 178</p> <p>Locate common fractions and decimals on a number line 4: 504-505, 506-507, 508-509, 628-629</p> <p>Model, recognize, and generate equivalent forms of decimals to hundredths 4: 34-35, 36, 42, 45, 47, 54, 55, 88, 624-625, 626</p> <p>Determine factors of whole numbers to 100 using models such as arrays 4: 123, 124-125, 126, 128-129, 131, 132A, 132-133, 144, 145, 147, 148A, 178, 180-181, 184, 264-265, 266, 267</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
<p>Compute fluently and make reasonable estimates</p>	<p><u>COMPUTATION AND ESTIMATION</u></p> <p>Develop and evaluate strategies for multiplying and dividing whole numbers and adding and subtracting fractions with like denominators 4: 124-125, 126-127, 130, 132-133, 134, 135, 143, 144, 145, 146A, 146B, 146-147, 174, 176, 184, 244, 262-263, 264-265, 266, 268, 270-271, 272, 365, 560, 563, 564-565, 566, 574-575, 576</p> <p>Apply with fluency efficient strategies for determining multiplication and division facts 0-9 4: 122A-122B, 122E-122F, 124-125, 126-127, 130, 132-133, 134, 135, 143, 144, 145, 147, 148-149, 254</p> <p>Multiply a three-digit number by a one-digit number 4: 274-275, 284, 313</p> <p>Divide a three-digit number by a one-digit number with or without remainders 4: 386-387, 388, 389, 390-391</p> <p>Determine the meaning of whole number remainders in a problem situation 4: 372-373, 374-375, 376, 380-381, 382, 384-385</p> <p>Add and subtract commonly used fractions with like denominators (halves, thirds, fourths, eighths, tenths) and decimals to hundredths 4: 560, 563, 564-565, 566, 574-575, 576</p> <p>Add and subtract decimals to hundredths, including money amounts 4: 76-77, 78, 81, 83, 84, 85, 86-87, 92, 93, 101, 110, 112, 151, 638-639, 640, 642-643, 644, 645</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
(continued)	<p>Mentally multiply or divide multiples of 10 (e.g., 40 x 70 or 2700/30) 4: 22-23, 27, 31, 33, 47, 50, 56-57, 136-137, 255, 256-257, 268, 269, 314-315, 364, 406-407</p> <p>Identify the most efficient operation (add, subtract, multiply, or divide) for solving a problem 4: 290-291, 294</p> <p>Select and use an appropriate estimation strategy (overestimate, underestimate, range of estimates) based on the problem situation when computing with whole numbers or money amounts 4: 31, 33, 37, 47, 60, 56-57, 60l, 68-69, 70, 72-73, 74, 75, 79, 108, 110, 114-115, 118-119, 258-259, 260-261, 316-317, 318, 368-369, 370</p> <p>Use place value concepts such as rounding to nearest 10, 100, and 1000 to estimate and check reasonableness of answers 4: 3, 7, 20-21, 22-23, 26, 27, 29, 46, 48-49, 50, 53, 57, 60, 68-69, 70, 81, 97, 108, 114-115, 271, 272</p>
Understand meanings of operations and how they relate to one another	<p><u>OPERATIONS AND PROPERTIES</u></p> <p>Demonstrate the meaning of fractions as part of a unit whole or as parts of a collection or set 4: 500-501, 502-503</p> <p>Use inverse operations (addition and subtraction, multiplication, and division) to solve problems and check solutions involving calculations with whole numbers 4: 82-83, 122J, 148-149, 150-151, 152-153, 154-155, 158</p> <p>Apply the commutative, associative, and identity properties of addition and multiplication and the distributive property to simplify calculations with whole numbers 4: 62-63, 108, 129, 132, 134-135, 145, 174, 176, 245</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Statistics and Probability	
Select and use appropriate statistical methods to analyze data	<p><u>STATISTICS</u></p> <p>Determine the median for a set of data and understand what each statistic does and does not indicate about the data 4: 226-227, 228, 236, 249, 253</p>
Understand and apply basic concepts of probability	<p><u>PROBABILITY</u></p> <p>Determine probability of a single event 4: 51, 113, 179, 700-701, 702-703, 706-707, 708</p> <p>Understand that the probability of an event can be represented by a number from 0 (impossible) to 1 (certain) 4: 51, 706-707, 708</p>
Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them	<p><u>COLLECT AND DISPLAY DATA</u></p> <p>Conduct experiments and simulations to determine experimental probability of different outcomes 4: 211</p> <p>Represent and interpret data collected from probability experiments and simulations using tallies, charts, pictograms, and bar graphs, including determining probabilities of single events 4: 211, 704-705</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
<p>Develop and evaluate inferences and predictions that are based on data</p>	<p><u>DATA ANALYSIS AND PREDICTIONS</u></p> <p>Predict the degree of likelihood of a single event occurring using words such as certain, impossible, most often, least often, likely, and unlikely 4: 700-701, 702-703</p> <p>Predict the likelihood of an outcome prior to an experiment and compare predicted probability with the actual results 4: 710-711</p>
<p>Algebraic Relationships</p>	
<p>Understand patterns, relations, and functions</p>	<p><u>PATTERNS AND FUNCTIONS</u></p> <p>Describe, extend and make generalizations about patterns and sequences and supply missing elements in chart or table format 4: 11, 15, 48, 51, 56, 59, 88-89, 90-91, 92, 93, 97, 98, 99, 110, 111, 113, 116, 120, 122, 128, 160-161, 162-163, 164-165, 170, 171, 173, 175, 177, 179, 181, 183, 185, 187, 188</p> <p>Supply a missing element in or determine a rule that extends number patterns involving addition or subtraction of decimals 4: Related content: 51, 58, 88-89, 90-91, 93, 98, 99, 110, 111, 113, 116, 120, 122, 127, 188</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
<p>Represent and analyze mathematical situations and structures using algebraic symbols</p>	<p><u>ALGEBRAIC RELATIONSHIPS</u></p> <p>Select operational and relational symbols to make a number sentence true (e.g., $4 _ 3 = 12$, $5 + 17 _ 25$) 4: 396-397, 398-399</p> <p>Represent and solve open sentences or problems involving numeric equations or inequalities (e.g., $3+?=4$; $2+1>?$, $4<2+?$) 4: 71, 100-101, 104, 109, 134, 166-167, 187, 688-689</p> <p>Translate between different representations (words, numeric, pictorial) of a simple quantitative relationship (e.g., match a table of values to its rule) 4: 94-95, 97, 99, 104, 105, 109, 116, 121, 140B, 160-161, 162-163, 164-165, 170, 171, 173, 175, 177, 179, 181, 183, 185, 187, 690-691</p>
<p>Measurement</p>	
<p>Understand measurable attributes of objects and the units, systems, and processes of measurement</p>	<p><u>UNITS AND TOOLS</u></p> <p>Select the most appropriate tool and U.S. customary unit to measure length, perimeter, weight, and volume 4: 50, 588-589, 590-591, 592-593, 594-595, 599, 664-665</p> <p>Carry out simple unit conversions within the U.S. customary system (e.g., inches to feet, ounces to pounds) 4: 596-597, 598</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Apply appropriate techniques, tools, and formulas to determine measurements	<p><u>DIRECT AND INDIRECT MEASUREMENT</u></p> <p>Determine elapsed time requiring unit conversions (e.g., weeks to months, minutes to hours) 4: 196-197, 200-201, 202, 215, 240, 242, 246-247, 250, 422</p> <p>Read temperature measurements of thermometers with Fahrenheit and Celsius units and recognize reasonable ranges of temperatures for different events (e.g., cold or hot day) 4: 664-665</p> <p>Determine measurements of length and perimeter to the nearest inch and nearest foot 4: 590-591</p> <p>Estimate the length of objects in inches, feet, and yards 4: 588-589, 623</p> <p>Determine measurements of volume to the nearest 1/4 cup, quart, or gallon of measuring cups, beakers, or graduated cylinders 4: 592-593</p> <p>Estimate the volume of objects in cups, quarts, and gallons 4: 592-593, 623</p> <p>Determine measurements of weight to the nearest ounce and pound 4: 594-595</p> <p>Estimate the weight of objects in ounces and pounds 4: 594-595, 623</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
(continued)	<p>Relate the area of a rectangle and its dimensions to area models for multiplication and division 4: 469, 470</p> <p>Determine perimeter and area of rectangles given lengths of sides 4: 112, 464-465, 466</p> <p>Estimate and measure the area of a rectangular surface using unit squares 4: 468-469, 469</p> <p>Use referents for US customary measurements to make estimates of length, weight, and volume and evaluate the reasonableness of the estimate (e.g., length of one floor tile and estimate length of classroom) 4: 476-477, 600-601</p>
Geometry	
<p>Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships</p>	<p><u>PROPERTIES AND RELATIONSHIPS</u></p> <p>Identify, describe, compare, and classify quadrilaterals by their sides and angles 4: 438-439, 445</p> <p>Identify right, acute, and obtuse angles in isolation and in geometric figures 4: 440-441, 442, 445, 446, 447</p> <p>Use properties of quadrilaterals to determine the lengths of their sides and perimeters 4: 464-465, 466-467</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
(continued)	<p>Develop, understand, and apply the property of the sum of the angle measures in a quadrilateral is 360 degrees 4: 452-453, 454</p> <p>Identify congruent quadrilaterals using concrete methods 4: Related content: 452-453, 454</p> <p>Draw conclusions about the measures of corresponding sides and angles of two congruent quadrilaterals 4: Related content: 452-453, 454</p>
<p>Use visualization, spatial reasoning, and geometric modeling to solve problems</p>	<p><u>MODELING</u></p> <p>Model, sketch, draw, and label points, lines, line segments, angles, rays, quadrilaterals, and parallel, perpendicular, and intersecting lines 4: 440-441, 442-443</p> <p>Build three-dimensional objects and sketch two-dimensional representations of the object 4: 434-435, 436-437</p>
<p>Specify locations and describe spatial relationships using coordinate geometry and other representational systems</p>	<p><u>COORDINATE GEOMETRY</u></p> <p>Locate coordinates of points on graph paper, maps, globes, and other charts 4: 179, 212-213, 214-215, 219, 224, 239, 240, 248, 686, 695</p> <p>Determine the shortest path of horizontal and vertical movement between two locations grid 4: 179, 240, 695</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Apply transformations and use symmetry to analyze mathematical situations	<p><u>TRANSFORMATIONS AND SYMMETRY</u></p> <p>Predict and describe the results of performing reflections, rotations and translations of quadrilaterals 4: 452-453, 454-455, 456-457</p> <p>Identify and describe a motion or series of motions that will show two quadrilaterals are congruent 4: 452-453, 454-455</p>
Mathematical Problem Solving	
Select, apply, and translate among mathematical representations to solve problems	<p><u>CONCEPTUAL UNDERSTANDING</u></p> <p>Interpret the concepts of a problem-solving task and translate them into mathematics 4: 12-13, 14-15, 24-25, 26, 38-39, 42, 49, 53, 59, 63, 90-91, 94-95, 140-141, 142-143, 144, 156-157, 186, 198-199, 276-277, 278-279, 326-327, 328, 396-397, 398-399, 472-473, 474-475, 512-513, 584-585, 648-649, 714-715</p>
Apply and adapt a variety of appropriate strategies to solve problems	<p><u>PROCESSES AND STRATEGIES</u></p> <p>Choose strategies that can work and then carry out the strategies chosen 4: 12-13, 14-15, 24A, 24B, 24-25, 26, 38-39, 42, 49, 53, 59, 63, 90-91, 94-95, 140-141, 142-143, 144, 156-157, 186, 198-199, 276-277, 278-279, 326-327, 328, 396-397, 398-399, 472-473, 474-475, 512-513, 584-585, 648-649, 714-715</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
<p>Monitor and reflect on the process of mathematical problem solving</p>	<p><u>VERIFICATION</u></p> <p>Produce identifiable evidence of a second look at the concepts/strategies/calculations to defend a solution 4: 12-13, 14-15, 24-25, 26, 38A, 38B, 38-39, 42, 49, 53, 59, 63, 90-91, 94-95, 140-141, 142-143, 144, 156-157, 186, 198-199, 276-277, 278-279, 326-327, 328, 396-397, 398-399, 472-473, 474-475, 512-513, 584-585, 648-649, 714-715</p>
<p>Communicate mathematical thinking coherently and clearly; Use the language of mathematics to express mathematical ideas precisely</p>	<p><u>COMMUNICATION</u></p> <p>Use pictures, symbols, and/or vocabulary to convey the path to the identified solution 4: 12-13, 14-15, 24-25, 26, 38-39, 42, 49, 53, 59, 63, 90-91, 94-95, 140-141, 142-143, 144, 156-157, 186, 198-199, 276-277, 278-279, 326-327, 328, 396-397, 398-399, 472-473, 474-475, 512-513, 584-585, 648-649, 714-715</p>
<p>Accurately solve problems that arise in mathematics and other contexts</p>	<p><u>ACCURACY</u></p> <p>Accurately solve problems using mathematics 4: 12-13, 14-15, 24-25, 26, 38-39, 42, 49, 53, 59, 63, 90-91, 94-95, 140-141, 142-143, 144, 156-157, 186, 198-199, 276-277, 278-279, 326-327, 328, 396-397, 398-399, 472-473, 474-475, 512-513, 584-585, 648-649, 714-715</p>

**Scott Foresman – Addison Wesley Mathematics
to the
Oregon Grade-Level Foundations
Grade Five**

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Calculations and Estimations	
Understand numbers, ways of representing numbers, relationships among numbers, and number systems	<p><u>NUMBERS</u></p> <p>Order, model, and compare common fractions, decimals, and percentages 5: 12-13, 394-395, 396, 418-419, 420-421, 426-427, 668-669</p> <p>Locate decimals and percentages on a number line 5: 8-9, 10-11, 430-431</p> <p>Model, recognize, and generate equivalent forms of commonly used fractions, decimals, and percents 5: 410-411, 412-413, 670-671</p> <p>Identify classes of numbers (e.g., primes, composites, even, odd, multiples) in a 1-to-100 number chart and describe numeric patterns related to them 5: 164-165, 166-167</p> <p>Recognize characteristics of odd, even, prime, and composite numbers 5: 164-165, 166-167</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
<p>Compute fluently and make reasonable estimates</p>	<p><u>COMPUTATION AND ESTIMATION</u></p> <p>Develop and evaluate strategies for computing with decimals and fractions 5: 38-39, 40-41, 88-89, 90-91, 92-93, 94-95, 96-97, 160-161, 230-231</p> <p>Divide by two-digit numbers 5: 214-215, 218-219, 222-223</p> <p>Determine the meaning of a remainder expressed as a whole number, fraction, or decimal in a problem situation involving division 5: 152-153, 154-155, 168-169, 214-215, 2216-217, 224-225</p> <p>Add and subtract fractions and mixed numbers with common fractions found on a ruler (2, 4, 8, 16) 5: 460-461, 462-463, 466-467, 472-473, 476-477, 478-479</p> <p>Add, subtract, multiply, and divide decimals, including money amounts 5: 38-39, 40-41, 88-89, 90-91, 92-93, 94-95, 96-97, 160-161, 232-233, 234-235</p> <p>Model percentages on a hundreds grid to determine equivalent decimals and percentages 5: 668-669</p> <p>Determine the order of operations for multiple-step calculations involving addition, subtraction, multiplication, and division 5: 172-173, 226-227</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
(continued)	<p>Select and use an appropriate estimation strategy (overestimate, underestimate, range of estimates) based on the problem situation when computing with decimals 5: 68-69, 86-87, 138-139, 140-141</p> <p>Use referent numbers and rounding to estimate the magnitude of calculations with decimals 5: 26-27, 28-29, 30-31, 205-207</p>
<p>Understand meanings of operations and how they relate to one another</p>	<p><u>OPERATIONS AND PROPERTIES</u></p> <p>Use inverse operations (addition and subtraction, multiplication and division) to solve problems and check 697, 698, 700-701, 702-703</p> <p>Apply the commutative, associative, and identity properties of addition and multiplication and the distributive property to simplify calculations with decimals 5: 22-23, 24-25, 66-67, 70-71</p>
Statistics and Probability	
<p>Select and use appropriate statistical methods to analyze data</p>	<p><u>STATISTICS</u></p> <p>Compare two related sets of data using measures of center (mean, median, and mode) and spread (range) 5: 282-283, 284-285</p>
<p>Understand and apply basic concepts of probability</p>	<p><u>PROBABILITY</u></p> <p>Connect simple fractional probabilities to events (e.g., heads is 1 out of 2; rolling a 5 on a six-sided number cube is 1/6) 5: 296-297, 298-299, 302-303</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
<p>Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them</p>	<p><u>COLLECT AND DISPLAY DATA</u></p> <p>Design investigations to address a question and recognize how data collection methods affect the nature of a set of data 5: 260-261, 300-301</p> <p>Understand basic concepts of sampling (e.g., larger samples yield better results, the need for representative samples) 5: 260-261</p> <p>Represent and interpret data using tables, circle graphs, bar graphs, and line graphs or plots (first quadrant) 5: 260-261, 262-263, 266-267, 286-287</p> <p>Compare different representations of the same data and evaluate how well each representation shows important aspects of the data (e.g., circle and bar graphs, histograms with different widths) 5: 262-263, 264-265, 266-267, 288-289</p> <p>Evaluate the appropriateness of representations of categorical and numeric data (e.g., categorical: types of lunch food, and numerical: heights of students in a class) 5: 260-261, 262-263, 266-267, 286-287, 288-289</p>
<p>Develop and evaluate inferences and predictions that are based on data</p>	<p><u>DATA ANALYSIS AND PREDICTIONS</u></p> <p>Analyze data from tables and bar graphs using mean, median, mode, and range, and draw conclusions 5: 208-209, 282-283, 300-301</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Algebraic Relationships	
Understand patterns, relations, and functions	<p><u>PATTERNS AND FUNCTIONS</u></p> <p>Represent and analyze patterns and functions using words, tables, graphs or simple algebraic expressions 5: 84-85, 106-107, 136-137, 202-203</p> <p>Supply a missing element in or determine a rule that extends number patterns involving multiplication or division 5: 84-85, 106-107, 176-177</p>
Represent and analyze mathematical situations and structures using algebraic symbols	<p><u>ALGEBRAIC RELATIONSHIPS</u></p> <p>Use letters, boxes, or other symbols to stand for an unknown quantity in expressions or equations 5: 100-101, 102-103, 108-109</p> <p>Represent the idea of a variable as an unknown quantity using a letter or symbol 5: 100-101, 102-103, 176, 706</p> <p>Represent and evaluate algebraic expressions involving a single variable (e.g., $4s$, $.05n$) 5: 100-101, 102-103, 104-105</p> <p>Identify and represent whole number data on a coordinate graph (first quadrant) 5: 174-175, 724-725, 726</p>
Use mathematical models to represent and understand quantitative relationships	<p><u>MODELING</u></p> <p>Identify or describe a situation which may be modeled by a given graph 5: 177, 652-653</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Analyze change in various contexts	<p><u>CHANGE</u></p> <p>Identify and describe situations with constant or varying rates of change and compare them 5: 654-655, 656</p>
Measurement	
Understand measurable attributes of objects and the units, systems, and processes of measurement	<p><u>UNITS AND TOOLS</u></p> <p>Using estimation, convert from a measurement expressed using one unit within a system to one using a comparable unit within the other system (e.g., inches to centimeters) 5: Related content: 528-529, 530-531, 532-533, 534-535</p> <p>Understand that measurements are approximations and understand how differences in units and tools affect precision 5: 531, 532-533, 616-617</p>
Apply appropriate techniques, tools, and formulas to determine measurements	<p><u>DIRECT AND INDIRECT MEASUREMENT</u></p> <p>Know common referents for Fahrenheit and Celsius temperatures (e.g., freezing point, boiling point) 5: 568-569, 574, 575</p> <p>Determine measurements of length and perimeter to the nearest tenth centimeter (millimeter) and nearest tenth meter 5: 534-535, 540-541</p> <p>Estimate the measure of acute, right, and obtuse angles in degrees using referent angles of 45 and 90 degrees and determine the measurement of angles between 0 and 180 degrees to the nearest degree 5: 332-333, 334-335, 336-337</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
(continued)	<p>Develop and use formulas for determining the perimeter and area of rectangles, and related triangles and parallelograms 5: 540-541, 548-549, 550-551</p> <p>Develop strategies to measure the perimeter of simple polygons and everyday objects 5: 540-541, 550-551</p> <p>Analyze the effects on area and perimeter by combining two simple geometric figures (e.g., two right triangles and a rectangle) 5: 552-553, 554-555</p> <p>Compare and contrast the formulas for area of rectangles, related triangles, and parallelograms 5: 552-553, 554-555, 550-551</p> <p>Estimate and measure volume of a rectangular solid using unit cubes 5: 610-611, 612-613</p> <p>Use referents for metric measurements to make estimates of length, weight, and volume and evaluate the reasonableness of the estimate (e.g., height of teacher estimated in height of student lengths) 5: 616-617, 622-623</p>
Geometry	
<p>Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships</p>	<p><u>PROPERTIES AND RELATIONSHIPS</u></p> <p>Identify, describe, compare and classify triangles by their sides and angles 5: 340-341, 342-343, 344-345</p> <p>Use properties of triangles to determine the lengths of their sides and perimeters 5: 340-341, 342-343, 344-345, 540-541</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
(continued)	<p>Develop, understand, and apply the property of the sum of the angle measures in a triangle is 180 degrees 5: 342-343, 344-345</p> <p>Draw conclusions about the measures of corresponding sides and angles of two congruent and similar triangles 5: 360-361, 362</p>
<p>Use visualization, spatial reasoning, and geometric modeling to solve problems</p>	<p><u>MODELING</u></p> <p>Accurately draw and label triangles, angles, and line segments using measurement tools 5: 332-333, 334, 336-337</p> <p>Identify and build three-dimensional objects from two-dimensional representations 5: 598-599, 600</p>
<p>Specify locations and describe spatial relationships using coordinate geometry and other representational systems</p>	<p><u>COORDINATE GEOMETRY</u></p> <p>Make and use coordinate systems to specify location and describe paths 5: 174-175, 724-725, 726-727</p> <p>Find the distance between points along the horizontal and vertical lines of a coordinate system 5: 174-175, 724-725, 726-727</p>
<p>Apply transformations and use symmetry to analyze mathematical situations</p>	<p><u>TRANSFORMATIONS AND SYMMETRY</u></p> <p>Identify and describe line and rotational symmetry in two-dimensional shapes and designs 5: 364-365, 366, 368-369, 370</p> <p>Identify and describe a motion or series of motions that will show two triangles are congruent 5: 364-365, 366-367</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Mathematical Problem Solving	
Select, apply, and translate among mathematical representations to solve problems	<p><u>CONCEPTUAL UNDERSTANDING</u></p> <p>Interpret the concepts of a problem-solving task and translate them into mathematics 5: 32-33, 42-43, 80-81, 144-145, 210-211, 276-277, 352-353, 434-435, 484-485, 558-559, 606-607, 660-661</p>
Apply and adapt a variety of appropriate strategies to solve problems	<p><u>PROCESSES AND STRATEGIES</u></p> <p>Choose strategies that can work and then carry out the strategies chosen 5: 32-33, 42-43, 80-81, 144-145, 210-211, 276-277, 352-353, 434-435, 484-485, 558-559, 606-607, 660-661</p>
Monitor and reflect on the process of mathematical problem solving	<p><u>VERIFICATION</u></p> <p>Produce identifiable evidence of a second look at the concepts/strategies/calculations to defend a solution 5: 32-33, 42-43, 80-81, 144-145, 210-211, 276-277, 352-353, 434-435, 484-485, 558-559, 606-607, 660-661</p>
Communicate mathematical thinking coherently and clearly; Use the language of mathematics to express mathematical ideas precisely	<p><u>COMMUNICATION</u></p> <p>Use pictures, symbols, and/or vocabulary to convey the path to the identified solution 5: 32-33, 42-43, 80-81, 144-145, 210-211, 276-277, 352-353, 434-435, 484-485, 558-559, 606-607, 660-661</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Accurately solve problems that arise in mathematics and other contexts	<p><u>ACCURACY</u></p> <p>Accurately solve problems using mathematics 5: 32-33, 42-43, 80-81, 144-145, 210-211, 276-277, 352-353, 434-435, 484-485, 558-559, 606-607, 660-661</p>

**Scott Foresman – Addison Wesley Mathematics
to the
Oregon Grade-Level Foundations
Grade Six**

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Calculations and Estimations	
<p>Understand numbers, ways of representing numbers, relationships among numbers, and number systems</p>	<p><u>NUMBERS</u></p> <p>Order, model, and compare positive rational numbers (fractions, decimals, and percentages) 6: 76-77, 78-79, 176-177, 178-179</p> <p>Apply factors and multiples to express fractions in lowest terms and identify fraction equivalents 6: 150-151, 160-161, 164-165, 166-167</p> <p>Understand rates and ratios as comparisons of two quantities by division 6: 300-301, 302-303, 304-305, 306-307, 308-309</p> <p>Differentiate between rates and ratios and express both as fractions 6: 300-301, 302-303, 304-305, 306-307, 308-309</p> <p>Solve problems by calculating rates and ratios 6: 300-301, 302-303, 304-305, 306-307, 308-309</p> <p>Locate positive rational numbers (fractions, decimals, and percentages) on a number line 6: 78, 80, 162, 169, 175</p> <p>Apply equivalent forms of fractions and decimals to solve problems 6: 164-165, 166-167</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
(continued)	<p>Determine equivalent forms of fractions, mixed numbers, and improper fractions 6: 164-165, 166-167, 168-169</p> <p>Model square numbers and recognize their characteristics 6: Related content: 146-147, 148-149</p> <p>Identify prime and composite numbers less than 100 6: 146-147, 148-149</p> <p>Solve problems using concepts related to factoring and determining divisibility (e.g., 2, 3, 5, 9 and 10) 6: 142-143, 144-145, 150-151</p>
<p>Compute fluently and make reasonable estimates</p>	<p><u>COMPUTATION AND ESTIMATION</u></p> <p>Develop and analyze algorithms for computing with fractions and mixed numbers 6: 204-205, 206-207, 208-209, 218-219, 220-221, 224-225</p> <p>Add and subtract fractions with like and unlike denominators 6: 204-205, 206-207, 208-209</p> <p>Understand linear, area, and discrete models to multiply and divide fractions 6: 252-253, 254-255, 266-267, 268-269</p> <p>Solve problems involving common percentages 6: 366-367, 368-369, 370-371, 374-375</p> <p>Convert mentally among common decimals, fractions, and percentages 6: 358-359, 360-361, 366-367</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
(continued)	<p>Apply grouping symbols to simplify calculations and evaluate expressions 6: 24-25, 26-27, 28-29, 30-31</p> <p>Develop and use strategies to estimate the results of positive rational number computations and judge the reasonableness of results 6: 206-207, 208-209</p> <p>Use referent numbers in estimating answers to adding and subtracting fractions and mixed numbers (e.g., $2\frac{1}{4} + \frac{3}{8} < 3$, since both $\frac{1}{4}$ and $\frac{3}{8}$ are less than $\frac{1}{2}$) 6: 204-205, 206-207, 208-209</p>
Understand meanings of operations and how they relate to one another	<p><u>OPERATIONS AND PROPERTIES</u></p> <p>Use the inverse operations of addition and subtraction to solve problems and check solutions involving adding and subtracting fractions and mixed numbers 6: 700-701, 702-703, 708</p> <p>Apply the associative, commutative, and distributive properties to simplify computations with positive rational numbers 6: 28-29, 30-31, 32-33, 34-35</p>
Statistics and Probability	
Select and use appropriate statistical methods to analyze data	<p><u>STATISTICS</u></p> <p>Find, use, and interpret measures of center and spread 6: 624-625, 626-627</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
<p>Understand and apply basic concepts of probability</p>	<p><u>PROBABILITY</u></p> <p>Determine experimental probability of an event from a set of data 6: 662-663, 664-665</p> <p>Express probability using fractions, ratios, decimals, and percents 6: 662-663, 664-665</p> <p>Understand that probability cannot determine an individual outcome, but can be used to predict the frequency of an outcome 6: 664-665, 666-667</p> <p>Determine the number of possible combinations of two or more classes of objects (e.g., shirts, pants, and shoes) 6: 264-265, 671</p>
<p>Formulate questions that can be addressed with data and collect, organize, and display relevant data to answer them</p>	<p><u>COLLECT AND DISPLAY DATA</u></p> <p>Design experiments and simulations to determine experimental probability of different outcomes 6: 662-663, 664-665, 666-667</p> <p>Understand that experimental probability approaches theoretical probability as the number of trials increases 6: 664-665, 666-667, 678, 679</p> <p>Recognize and understand the connections among concepts of independent outcomes, picking at random, and fairness 6: 621, 655, 662, 669, 672</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
(continued)	<p>Represent and interpret the outcome of a probability experiment using a frequency distribution, including determining experimental probabilities 6: 628-629, 630-631, 664-665</p>
<p>Develop and evaluate inferences and predictions that are based on data</p>	<p><u>DATA ANALYSIS AND PREDICTIONS</u></p> <p>Make predictions for succeeding trials of a probability experiment given the outcome of preceding repeated trials 6: 628-629, 630-631, 664-665</p> <p>Predict the outcome of a probability experiment by computing and using theoretical probability 6: 664-665, 666-667, 678, 679</p>
<p>Algebraic Relationships</p>	
<p>Understand patterns, relations, and functions</p>	<p><u>PATTERNS AND FUNCTIONS</u></p> <p>Represent, analyze, and determine rules for finding patterns involving positive rational numbers with tables, graphs, words, and when possible, symbolic rules 6: 444-445, 446-447, 452, 453</p>
<p>Represent and analyze mathematical situations and structures using algebraic symbols</p>	<p><u>ALGEBRAIC RELATIONSHIPS</u></p> <p>Develop an understanding of different uses of variables (e.g., as a placeholder for a specific unknown, as representative of a range of values) 6: 40-41, 42-43, 44-45, 46-47</p> <p>Represent and evaluate algebraic expressions involving two variables (e.g., $bh/2$, $2w + 2l$) 6: 40-41, 42-43, 56, 57</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
(continued)	<p>Describe and interpret relationships using information from tables and graphs including coordinate graphs (first quadrant) 6: 440-441, 442-443, 444-445</p> <p>Graph linear equations on a coordinate grid by making a table using whole number coordinates 6: 444-445, 446-447, 448-449</p>
<p>Use mathematical models to represent and understand quantitative relationships</p>	<p><u>MODELING</u></p> <p>Model and solve contextualized problems using various representations such as graphs, tables, and equations 6: 440-441, 442-443, 444-445, 446-447, 452, 453</p> <p>Recognize and represent direct variation using tables and graphs 6: 440-441, 442-443, 444-445, 446-447, 452, 453</p> <p>Identify and sketch a graph that models a given situation 6: 440-441, 442-443, 444-445, 446-447, 452, 453</p>
<p>Analyze change in various contexts</p>	<p><u>CHANGE</u></p> <p>Investigate how a change in one variable relates to a change in a second variable 6: 590-591, 592-593</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Measurement	
<p>Understand measurable attributes of objects and the units, systems, and processes of measurement</p>	<p><u>UNITS AND TOOLS</u></p> <p>Select the most appropriate unit to measure area and perimeter 6: 496-497, 498-499</p> <p>Carry out unit conversions in the US customary system as a result of calculations involving measurements of length, perimeter, volume, and weight (e.g., $6\frac{1}{2}'' + 3\frac{3}{4}'' + 6\frac{1}{2}'' = 16\frac{3}{4}''$ or 1 ft $4\frac{3}{4}''$) 6: 542-543, 544-545, 549</p> <p>Convert from a measurement expressed in one unit within a system to another using a different unit within the same system to measure perimeter and area 6: 552-553, 562, 563</p>
<p>Apply appropriate techniques, tools, and formulas to determine measurements</p>	<p><u>DIRECT AND INDIRECT MEASUREMENT</u></p> <p>Determine measurements of length and perimeter to the nearest eighth inch (for length less than one foot) and nearest inch (for lengths greater than one foot) 6: 540, 542-543, 544-545</p> <p>Estimate the measures of angles greater than 180 degrees 6: 476-477, 478-479, 480-481</p> <p>Develop and use formulas for finding perimeter and area of polygons 6: 564-565, 566-567, 568-569, 570-571</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
(continued)	<p>Calculate the area and circumference of a circle using pi as well as common approximations of pi (e.g., 3.14, 22/7) 6: 576-577, 578-579, 580-581</p> <p>Develop strategies for determining approximate perimeter and area of irregular shapes 6: 572-573, 574-575, 584, 585</p> <p>Determine the area of a complex figure representative of a problem situation composed of a combination of two or more geometric figures (e.g., attach a triangle to a parallelogram) 6: 572-573, 574-575, 584, 585</p> <p>Recognize that two-dimensional shapes having the same perimeter may have different areas and that shapes having the same area may have different perimeters 6: 570-571, 584</p> <p>Analyze how changes in area of a figure affect the dimensions of the figure 6: 568-569, 570-571</p> <p>Use referents to make estimates of area and evaluate the reasonableness of the estimate (e.g., estimate area of classroom by measuring area of one floor tile) 6: 572-573, 574-575, 584, 585</p> <p>Calculate rates (e.g., miles per hour, miles per gallon, people per square mile) to solve problems 6: 306-307, 308-309, 314, 315</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Geometry	
<p>Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships</p>	<p><u>PROPERTIES AND RELATIONSHIPS</u></p> <p>Identify, describe, compare and classify polygons by their sides and angles 6: 494-495, 500-501</p> <p>Identify and represent the radius, center, diameter, chord, and circumference of a circle 6: 502-503, 504, 505</p> <p>Identify combinations of angles that are complementary or supplementary and determine their measures 6: 480-481, 482-483, 492</p> <p>Use properties of polygons to determine the lengths of sides and perimeters 6: 564-565, 566-567</p> <p>Develop, understand, and apply the property of the sum of the measures of the interior angles in a polygon as well as the sum of the exterior angles 6: 496-497, 498-499, 500-501</p> <p>Find and use congruent polygons which will cover a surface without overlapping (tessellation) 6: 516-517, 518-519</p>

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Use visualization, spatial reasoning, and geometric modeling to solve problems	<p><u>MODELING</u></p> <p>Model, sketch, draw, and label polygons, circles (including the center, radius, and diameter), complementary angles, supplementary angles, vertical angles, and adjacent angles 6: 480-481, 482-483</p> <p>Identify and describe the intersection of two or more geometric figures in the plane (e.g., the intersection of a circle and a line) 6: 484-485, 486-487, 489</p>
Specify locations and describe spatial relationships using coordinate geometry and other representational systems	<p><u>COORDINATE GEOMETRY</u></p> <p>Plot polygons on coordinate graphs (first quadrant) 6: 440-441, 442-443</p> <p>Determine lengths and areas of simple polygons from coordinate graphs 6: Related content: 440-441, 442-443</p>
Apply transformations and use symmetry to analyze mathematical situations	<p><u>TRANSFORMATIONS AND SYMMETRY</u></p> <p>Build or sketch a shape that has a given number of lines of symmetry, or rotational symmetries (e.g., sketch a simple polygon with a given number of lines of symmetry) 6: 510-511, 512-513, 514-515</p>
Mathematical Problem Solving	

Common Curriculum Goals	Oregon Grade-Level Foundations Scott Foresman – Addison Wesley Mathematics References
Select, apply, and translate among mathematical representations to solve problems	<p><u>CONCEPTUAL UNDERSTANDING</u></p> <p>Interpret the concepts of a problem-solving task and translate them into mathematics 6: 116-117, 156-157, 212-213, 264-265, 312-313, 374-375, 434-435, 490-491, 560-561, 648-649, 706-707</p>
Apply and adapt a variety of appropriate strategies to solve problems	<p><u>PROCESSES AND STRATEGIES</u></p> <p>Choose strategies that can work and then carry out the strategies chosen 6: 116-117, 156-157, 212-213, 264-265, 312-313, 374-375, 434-435, 490-491, 560-561, 648-649, 706-707</p>
Monitor and reflect on the process of mathematical problem solving	<p><u>VERIFICATION</u></p> <p>Produce identifiable evidence of a second look at the concepts/strategies/calculations to defend a solution 6: 116-117, 156-157, 212-213, 264-265, 312-313, 374-375, 434-435, 490-491, 560-561, 648-649, 706-707</p>
Communicate mathematical thinking coherently and clearly; Use the language of mathematics to express mathematical ideas precisely	<p><u>COMMUNICATION</u></p> <p>Use pictures, symbols, and/or vocabulary to convey the path to the identified solution 6: 116-117, 156-157, 212-213, 264-265, 312-313, 374-375, 434-435, 490-491, 560-561, 648-649, 706-707</p>
Accurately solve problems that arise in mathematics and other contexts	<p><u>ACCURACY</u></p> <p>Accurately solve problems using mathematics 6: 116-117, 156-157, 212-213, 264-265, 312-313, 374-375, 434-435, 490-491, 560-561, 648-649, 706-707</p>