

A Correlation of

Scott Foresman • Addison Wesley

en**Vision**MATH™

to the

Alaska

**Math Performance Standards
(Grade Level Expectations)**

Grades K-6

PEARSON

M/M-139

Introduction

This correlation shows the close alignment between **Scott Foresman – Addison Wesley enVisionMATH**, copyright 2009, to the *Alaska Math Performance Standards (Grade Level Expectations)*. Correlation page references are to the Teacher's Edition. Lessons in the Teacher's Edition include facsimile pages of the Student Edition.

The enVisionMATH™ program is based around scientific research on how children learn mathematics as well as on classroom-based evidence that validates proven reliability.

Personalized Curriculum

enVisionMATH™ provides 20 (16 in Kindergarten) focused topics that are coherent, digestible groups of lessons focusing on one or a few related content areas. A flexible sequence of topics is small enough for a district to rearrange into a personalized curriculum that matches the sequence preferred by the district. The curriculum is designed so that all standards can be taught before the major mathematics testing.

Instructional Design

enVisionMATH™ teaches for deep conceptual understanding using research-based best practices. Essential understandings connected by Big Ideas are explicitly stated in the Teacher's Edition. Daily Spiral Review and the Problem of the Day focus foundational skills and allow for ongoing practice with a variety of problem types. Daily interactive concept development encourages students to interact with teachers and other students to develop conceptual understanding.

Visual Learning allows students to benefit from seeing math ideas portrayed pictorially as well as being able to see connections between ideas. enVisionMATH™ created a Visual Learning Bridge which is a step-by-step bridge between the interactive learning activity and the lesson exercises to help students focus on one idea at a time and see the connections within the sequence of ideas. The strong sequential visual/verbal connections deepen conceptual understanding for students of all learning modalities and are particularly effective with English language learners and struggling readers. Guiding questions in blue type help the teacher guide students through the examples, ask probing questions to stimulate higher order thinking, and allow for checking of understanding.

Differentiated Instruction

enVisionMATH™ engages and interests all students with leveled activities for ongoing differentiated instruction. A Teacher-Directed Intervention activity at the end of every lesson provides immediate opportunities to get students on track. In addition, ready made leveled learning centers for each lesson allow different students to do the same activity at different levels at the same time giving the teacher uninterrupted time to focus on reteaching students who require intervention. All centers can be used repeatedly due to the inclusion of a "Try Again" at the end. They can also be used for ongoing review and they can be used year after year. Topic-specific considerations for EL, Special Education, At-Risk, and Advanced students enable the teacher to accommodate the diverse learners in the classroom.

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**Scott Foresman – Addison Wesley enVisionMATH
to the
Alaska Math Performance Standards
(Grade Level Expectations)
Kindergarten**

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Content Standard A: Mathematical facts, concepts, principles, and theories	
Numeration: Understand and use numeration	
Understanding Numbers <i>The student demonstrates conceptual understanding</i>	
• of whole numbers to 20 by	
[K] N-1 demonstrating 1-1 correspondence (M1.1.1)	51, 52, 52B, 52C, 53, 53A, 56B, 61, 64B, 64C, 66B, 68B, 76B, 76C, 79A, 86B, 88B, 88C, 213, 215, 217, 219
[K] N-2 recognizing and counting whole numbers from 0-20 (M1.1.1)	51, 52C, 53, 53A, 55, 56, 56A, 56C, 58A, 60A, 75, 76C, 81, 82, 82C, 88, 88A, 213, 215, 217, 219
[K] N-3 writing and ordering whole numbers from 0-20 (M1.1.1)	53, 54, 54A, 54C, 57A, 58, 58A, 58C, 59, 60, 62C, 69A, 69, 70, 70A, 70B, 70C, 79, 80, 80B, 80C, 84C, 85, 86, 86A, 86C, 88C, 91, 92, 92C, 213, 214, 214A, 214C, 216, 216A, 216C, 218A, 218C, 220A, 220C
[K] N-4 counting whole numbers backwards from 10 to 0 (M1.1.1)	93, 94C,, 232, 232C
[K] N-5 identifying ordinal position, first to the tenth (M1.1.4)	143A, 143, 144, 144A, 144B, 144C, 145A, 145, 146, 146A, 146B, 146C
• of simple fractions	
[K] N-6 dividing an even numbered set of concrete objects (up to 20) into halves (M1.1.5)	221, 222, 222A, 222B, 222C
[K] N-7 identifying halves (M1.1.5)	137, 138, 138A, 138B, 138C, 139, 140, 140A, 140B, 140C
[K] N-8 identifying full, half full, and empty containers (M1.1.5)	163, 164, 164A, 164B, 164C, 165

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Understanding Meaning of Operations <i>The student demonstrates conceptual understanding of mathematical operations by</i>	
[K] N-9 recognizing (+), (-), and (=) signs (M1.1.3)	184, 184A, 184B, 184C, 186, 186B, 186B, 186C, 190, 190A, 190B, 190C, 191, 201, 202, 202A, 202B, 202C
[K] N-10 using objects or pictures to model addition and subtraction of whole numbers (M1.1.3)	202, 202A, 202B, 202C
[K] N-11 using number lines or objects related to real situations (M1.1.3)	202, 202A, 202B, 202C, 206A
Number Theory <i>The student demonstrates conceptual understanding of number theory by</i>	
[K] N-12 demonstrating skip counting by 2's, 5's, and 10's with support (M1.1.6)	227, 228A, 228B, 228C, 229, 230, 230A, 230C
Content Standard A: Mathematical facts, concepts, principles, and theories	
Measurement: Select and use systems, units, and tools of measurement	
Measurable Attributes <i>The student demonstrates understanding of measurable attributes by</i>	
[K] MEA-1 making comparisons between objects using concepts of big/little, long/short, large/small, more/less, same (M2.1.1)	63, 64, 64A, 64C, 65, 66, 66A, 66B, 66C, 67, 68B, 68C
[K] MEA-2 identifying coins by name: penny, nickel, dime, and quarter (M2.1.5)	237, 239, 241, 243
Measurement Techniques <i>The student demonstrates ability to use measurement techniques by</i>	
[K] MEA-3 identifying instruments used to measure length, time, and temperature (M2.1.3)	159A, 159, 160, 160A, 160B, 160C, 261, 262, 262A, 262B, 262C, 281, 282, 282A, 282B, 282C,

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[K] MEA-4 naming in sequence the days of the week (M2.1.1)	273, 274, 274A, 274B, 274C
[K] MEA-5 telling time to the hour using analog and digital clocks (M2.1.4)	261A, 261, 262, 262A, 262B, 262C, 263, 264, 264A, 264B, 264C
Content Standard A: Mathematical facts, concepts, principles, and theories Estimation and Computation: Perform basic arithmetic functions, make reasoned estimates, and select and use appropriate methods or tools	
Estimation <i>The student determines reasonable answers to real-life situations, paper/pencil computations, or calculator results by</i>	
[K] E&C-1 comparing the number of objects in different sets using more, less, same	63, 64, 64A, 64B, 64C, 289A, 289, 289B, 290C
[K] E&C-2 estimating the number of objects in a given set as more or less than 10 (M3.1.1)	105, 106, 106A, 106B, 106C
Computation <i>The student accurately solves problems (including real-world situations) involving</i>	
[K] E&C-3 adding and subtracting whole numbers up to ten using manipulatives (M3.1.3)	177, 179, 181, 183, 184, 184A, 184B, 184C, 185, 186, 186A, 186B, 186C, 188C, 195, , 196, 197, 198, 198C, 199, 200, 200C, 201, 202, 202A, 202B, 202C, 203, 204, 204A, 204B, 204C
Content Standard A: Mathematical facts, concepts, principles, and theories Functions and Relationships: Represent, analyze, and use patterns, relations, and functions	
Describing Patterns and Functions <i>The student demonstrates conceptual understanding of functions, patterns, or sequences by</i>	
[K] F&R-1 recognizing patterns found in common objects, sounds, and movements (M4.1.1)	33, 34, 34A, 34B, 34C

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
[K] F&R-2 identifying, sorting, and classifying objects by attribute and identifying objects that do not belong to a particular group (M4.1.1)	5, 6, 6A, 6C, 12, 12A, 12C
[K] F&R-3 recognizing, identifying, and continuing simple patterns of color, shape, or size (M4.1.1)	35, 36, 36A, 36B, 36C, 37, 38, 38A, 38B, 38C, 43, 44, 44A, 44B, 44C
Modeling and Solving Equations and Inequalities <i>The student demonstrates algebraic thinking by</i>	
[K] F&R-4 adding or subtracting whole numbers to 10 using manipulatives to solve story problems (M4.1.4)	205, 206, 206A, 206B, 206C, 187, 188, 188A, 188B, 188C
[K] F&R-5 showing more, less, or equal to using objects (M4.1.4)	109, 110, 110A, 110B, 110C
Content Standard A: Mathematical facts, concepts, principles, and theories Geometry: Construct, transform, and analyze geometric figures.	
Geometric Relationships <i>The student demonstrates an understanding of geometric relationships by</i>	
[K] G-1 sorting and classifying shapes according to similar attributes (M5.1.1)	116, 116A, 116B, 117, 117A, 118, 118A, 118C
[K] G-2 describing objects using three attributes such as size, color, and shape (M5.1.1)	9, 10, 10A, 10B, 10C, 11, 12, 12A
[K] G-3 identifying triangle, circle, rectangle, and square (M5.1.1)	115, 116, 116A, 116B, 117, 118, 118A, 118B

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Similarity, Congruence, Symmetry, and Transformation of Shapes <i>The student demonstrates conceptual understanding of similarity, congruence, symmetry, or transformations of shapes by</i>	
[K] G-4 comparing geometric shapes (M5.1.3)	121A, 121, 122, 122A, 122B, 122C, 123, 124, 124A, 124B
Position and Direction <i>The student demonstrates understanding of position and direction by</i>	
[K] G-5 identifying positions of objects that are above, below, before, after, next to, in the middle of, in front of, behind... (M5.1.6)	17, 18, 18A, 19, 20, 20A, 21, 22, 23, 24, 24A
Construction <i>The student demonstrates a conceptual understanding of geometric drawings or constructions by</i>	
[K] G-6 drawing, copying, or describing triangles, squares, rectangles and circles (M5.1.7)	116, 116A, 116B, 117A, 117, 118, 118A, 118C
Statistics and Probability: Formulate questions, gather and interpret data, and make predictions	
Data Display <i>The student demonstrates an ability to classify and organize data by</i>	
[K] S&P-1 constructing real graphs using concrete objects or pictographs with support (M6.1.1)	297, 298, 298A, 298B
[K] S&P-2 collecting and recording data with support (M6.1.1)	291, 292, 292A, 292B

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Analysis and Central Tendency <i>The student demonstrates an ability to analyze data (comparing, explaining, interpreting, evaluating; or drawing or justifying conclusions) by</i>	
[K] S&P-3 describing information from real graphs or pictographs (M6.1.2)	293, 294, 294A, 295, 296, 296A, 296B, 296C
Probability <i>The student demonstrates a conceptual understanding of probability and counting techniques by</i>	
[K] S&P-4 making simple predictions using events or repeated observations (M6.1.4)	299, 299A, 300, 300A
Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections Problem Solving: Understand and be able to select and use a variety of problem-solving strategies	
<i>The student demonstrates an ability to problem solve by</i>	
[K] PS-1 solving simple problems using concrete objects (M7.1.2)	109-110A, 131-132A
Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections Communication: Form and use appropriate methods to define and explain mathematical relationships	
<i>The student communicates his or her mathematical thinking by</i>	
[K] PS-2 telling how objects were used to solve simple problems (M8.1.2)	109-110A, 131-132A

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<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections Reasoning: Use logic and reason to solve mathematical problems</p>	
<p><i>The student demonstrates an ability to use logic and reason by</i></p>	
<p>[K] PS-3 explaining what makes sense (M9.1.3)</p>	<p>11-12A, 207A, 207, 265- 266A, 266c, 299-300A</p>
<p>[K] PS-4 drawing pictures that support simple mathematical statements (M9.1.2)</p>	<p>147-148, 189-190, 283-284</p>
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections Connections: Apply mathematical concepts and processes to situations within and outside of school.</p>	
<p><i>The student understands and applies mathematical skills and processes across the content strands by</i></p>	
<p>[K] PS-5 using real world context (i.e., self, friends, and family) (M10.1.2)</p>	<p>253-254A, 254C, 255-256A, 256C, 257-258A, 258C, 271-272A, 273-274A, 275-276A, 297-298A</p>

**Scott Foresman – Addison Wesley enVisionMATH
to the
Alaska Math Performance Standards
(Grade Level Expectations)
Grade One**

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Content Standard A: Mathematical facts, concepts, principles, and theories Numeration: Understand and use numeration	
Understanding Numbers <i>The student demonstrates conceptual understanding</i>	
• of whole numbers to one hundred by	
[1] N-1 reading, writing, ordering/counting and modeling correspondence of whole numbers	3A, 3-6, 6B, 7A, 7-10B, 11-14B, 15-18, 18B, 19A, 19-22B, 23A, 23-26B, 31A, 31-34B, 35A, 35-38, 38B, 39A, 39-42B, 43A, 43-46B, 263A, 236-266B, 267A, 267-270B, 307-310B, 311A, 311-314B, 315A, 315-128B, 319A, 319-322B, 323A, 323-326B, 332A, 332-334B, 335A, 338B, 351A, 351-354B, 355-358B, 359A, 359-362B
[1] N-2 comparing whole numbers using the words greater than, less than or equal to	31-34, 34B, 339-342, 342B, 343A-346, 355-358B
[1] N-3 identifying ordinal position, first to the twentieth (M1.1.4)	287-290, 290B
• of simple fractions	
[1] N-4 dividing an even numbered set of concrete objects (up to 50) into halves (M1.1.5)	593-596, 597-600, 600B, 601-604
[1] N-5 dividing geometric shapes into equal halves, fourths, and thirds (M1.1.5)	585-588, 588B, 589-592, 592B, 593A, 601A, 602-604

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Understanding Meaning of Operations <i>The student demonstrates conceptual understanding of mathematical operations by</i>	
[1] N-6 using objects, pictures, and problem situations to model addition and subtraction of whole numbers (M1.1.3)	51-54, 55-58, 59-62, 63-66, 67-70, 71-74, 81-82, 83-86, 87-90, 91-94, 95-98, 99-102, 103-106, 107-110, 111-114, 143-146, 147-150, 151-154, 155-158, 159-162, 163-166, 171-175, 175-178, 179-182, 183-186, 187-190, 481-484, 319-322, 485-488, 489-492, 493-496, 497-500, 501-504, 505-508, 509-512, 517-520, 521-524, 525-528, 529-532, 533-536, 609-612, 613-616, 617-620, 621-624, 624, 625-628, 629-632, 633-636
[1] N-7 identifying groups of objects as repeated addition or equal shares (M1.1.3)	271-274, 274B, 275A-278, 278B, 279A-282, 282B, 283A, 593-596, 597-600, 600B, 601-604
Number Theory <i>The student demonstrates conceptual understanding of number theory by</i>	
[1] N-8 skip counting by 2's to 20 and 5's and 10's to 100 (M1.1.6)	271-274, 274B, 275-278, 278B, 279-282, 282B
[1] N-9 identifying odd and even numbers up to 20 (M1.1.6)	283-286, 286B
[1] N-10 identifying fact families (M1.1.3)	51-54, 54B, 55-58, 58B, 59-62, 62B, 127A, 127-130, 130B, 135-138, 138B, 143-146, 146B, 147-150, 150B, 151-154, 154B, 155-158, 158B, 159-162, 162B, 521-524, 524B
Content Standard A: Mathematical facts, concepts, principles, and theories	
Measurement: Select and use systems, units, and tools of measurement	
Measurable Attributes <i>The student demonstrates understanding of measurable attributes by</i>	
[1] MEA-1 measuring and/or comparing objects using standard and nonstandard units (M2.1.2)	399-402, 402B, 403-406, 406B, 407-410, 410B, 411-414, 414B, 415-418, 418B, 419-422, 422B, 423-426, 426B, 431-434, 434B, 435-438, 438B, 439-442, 442B, 443-446, 446B

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
[1] MEA-2 identifying money by its value (e.g., penny, nickel, dime, quarter, dollar) (M2.1.5)	367-370, 370B, 372, 374B, 375-378, 378B, 379-382, 382A, 382B
Measurement Techniques <i>The student demonstrates ability to use measurement techniques by</i>	
[1] MEA-3 drawing a line segment to the nearest inch (M2.1.3)	407A, 407-410, 410A
[1] MEA-4 telling time to the nearest half hour using analog and digital clocks (M2.1.4)	461-464, 464A, 464B
[1] MEA-5 comparing concepts such as: before/after, shorter/longer (M2.1.1)	465-468, 468A, 469-472, 472B
[1] MEA-6 reading a calendar (distinguishing yesterday, today, and tomorrow) (M2.1.1)	472B
[1] MEA-7 recognizing money symbols (\$, ¢) (M2.1.5)	367-370, 370B, 371-374, 374B, 375-378, 378B, 379-382, 382B, 383-386, 386B, 387-390, 390B
[1] MEA-8 identifying equal values of a coin up to a dollar (5 pennies = 1 nickel, 5 nickels = 1 quarter) (M2.1.5)	367-370, 370B, 371-374, 374B, 375-378, 378B, 379-382, 382B
Content Standard A: Mathematical facts, concepts, principles, and theories Estimation and Computation: Perform basic arithmetic functions, make reasoned estimates, and select and use appropriate methods or tools	
Estimation <i>The student determines reasonable answers to real-life situations, paper/pencil computations, or calculator results by</i>	
[1] E&C-1 estimating “how many” and “how much” in a given set up to 20	119-122, 122B, 123-126, 128, 263, 266, 266B

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
[1] E&C-2 identifying whether estimation or counting is appropriate with support (M3.1.1)	347-350
Computation <i>The student accurately solves problems (including real-world situations) involving</i>	
[1] E&C-3 recalling addition and subtraction facts 0-10 (M3.1.2)	51-54, 55-58, 59-62, 63-66, 67-70, 71-74, 83-86, 87-90, 91-94, 95-98, 99-102, 103-106, 107-110, 111-114, 143-146, 147-150, 151-154, 155-158, 159-162, 163-166, 171-175, 175-178, 179-182, 183-186, 187-190
[1] E&C-4 recalling doubles to 20 (M3.1.2)	147-150, 150B, 175-178, 178B, 481-484, 484B
Content Standard A: Mathematical facts, concepts, principles, and theories	
Functions and Relationships: Represent, analyze, and use patterns, relations, and functions	
Describing Patterns and Functions <i>The student demonstrates conceptual understanding of functions, patterns, or sequences by</i>	
[1] F&R-1 identifying, naming (e.g., aabb, abab), and continuing a variety of patterns (M4.1.1)	243-246, 247-250, 251-254, 254B, 255-258, 258B
[1] F&R-2 creating patterns involving number, shape, size, rhythm, or color (M4.1.1)	243-246B, 247-250, 250B, 251-254, 254B, 255-258, 258B
Modeling and Solving Equations and Inequalities <i>The student demonstrates algebraic thinking by</i>	
[1] F&R-3 adding and subtracting whole numbers to 20 using manipulatives to solve story problems (M4.1.4)	51-54, 58, 58B, 62, 62B, 66, 66A-66B, 68-70, 78, 78B, 86, 86B, 90, 90B, 94, 94B, 98, 98-98, 98B, 99, 110B, 102B, 103-106, 106B, 111-113

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
[1] F&R-4 creating and solving problems using words, symbols, and drawings (M4.1.4)	163-166, 166B, 187-189, 189B, 533-536, 536B, 601-604, 604B
[1] F&R-5 using the terms equal to, more than, and less than for numbers up to 20 (M4.1.4)	31-34, 34B, 339-342, 342B
Content Standard A: Mathematical facts, concepts, principles, and theories Geometry: Construct, transform, and analyze geometric figures.	
Geometric Relationships <i>The student demonstrates an understanding of geometric relationships by</i>	
[1] G-1 identifying the attributes of 2-dimensional shapes (e.g., a triangle has three sides) (M5.1.1)	195-198, 198B, 199-202, 202B
[1] G-2 identifying and classifying 2 dimensional shapes through visual observations and properties (e.g., which of these shapes is a triangle) (M5.1.1)	195-198, 198B, 199-202, 202B,
[1] G-3 relating real-world examples (e.g., a door is shaped like a rectangle) to the ideas and concepts of geometry (M5.1.2)	195, 197, 198A, 227-229, 230-230, 230B, 231
Similarity, Congruence, Symmetry, and Transformation of Shapes <i>The student demonstrates conceptual understanding of similarity, congruence, symmetry, or transformations of shapes by</i>	
[1] G-4 comparing shapes in the real world (M5.1.3)	195, 197, 198A, 227-229, 230-230, 230B, 231, 238
Position and Direction <i>The student demonstrates understanding of position and direction by</i>	
[1] G-5 modeling directional and positional concepts: before, after, between, next to, around, above, below, in the middle of... (M5.1.6)	351-354B

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Construction <i>The student demonstrates a conceptual understanding of geometric drawings or constructions by</i>	
[1] G-6 drawing, copying, or describing a variety of shapes (M5.1.7)	195-198, 198B, 199-202, 202B, 203-206, 206B, 207-210, 210B, 212-214, 214A, 215-218, 218B, 230-230, 230B, 231
[1] G-7 identifying geometric shapes in real-world objects (M5.1.7)	195, 197, 198A, 227-229, 230-230, 230B, 231
Content Standard A: Mathematical facts, concepts, principles, and theories Statistics and Probability: Formulate questions, gather and interpret data, and make predictions	
Data Display <i>The student demonstrates an ability to classify and organize data by</i>	
[1] S&P-1 constructing and using real graphs, pictographs, and bar graphs (M6.1.1)	541-544, 544B, 545-548, 548B, 549-552, 552B, 557-560, 560B, 561-564, 564B, 565-568, 568B, 569-572, 572B
[1] S&P-2 collecting and recording data (M6.1.1)	557-560, 560B, 561-564, 564B, 565-568, 568B, 569-572, 572B
[1] S&P-3 interpreting data with support (M6.1.1)	541-544, 544B, 545-548, 548B, 549-552, 552B
Analysis and Central Tendency <i>The student demonstrates an ability to analyze data (comparing, explaining, interpreting, evaluating; or drawing or justifying conclusions) by</i>	
[1] S&P-4 describing information from simple charts/graphs (M6.1.2)	541-544, 544B, 545-548, 548B, 549-552, 552B, 557-560, 560B, 561-564, 564B, 565-568, 568B, 569-572, 572B

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
<p>Probability <i>The student demonstrates a conceptual understanding of probability and counting techniques by</i></p>	
<p>[1] S&P-5 predicting, interpreting, and comparing data using events or repeated observations (M6.1.4)</p>	557-564, 573-576, 576B, 577-580, 580B
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections Problem Solving: Understand and be able to select and use a variety of problem-solving strategies</p>	
<p><i>The student demonstrates an ability to problem solve by</i></p>	
<p>[1] PS-1 creating and solving simple problems using a variety of strategies (M7.1.1 & M7.1.2)</p>	23-26, 26B, 43-46, 46B, 75-78, 78B, 111-114, 114B, 135-138, 138B, 163-166, 166B, 187-190, 190B, 223-226, 226B, 255-258, 258B, 259-298, 298B, 323-326, 326B, 359-362, 362B, 387-390, 390B, 403-406, 406B, 473-476, 476B, 493-494, 494B, 509-512, 512B, 533-536, 536B, 569-572, 572B, 601-604, 604B, 637-640, 640B
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections Communication: Form and use appropriate methods to define and explain mathematical relationships</p>	
<p><i>The student communicates his or her mathematical thinking by</i></p>	
<p>[1] PS-2 translating problems from everyday language into math language and symbols (+, -, =) (M8.1.1)</p>	163-166, 166B, 187-190, 190B, 339-342, 342B, 533-536, 536B

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
<p>[1] PS-3 using everyday language to explain thinking about problem solving strategies and solutions to problems (M8.1.3)</p>	<p>23-26, 26B, 43-46, 46B, 75-78, 78B, 111-114, 114B, 135-138, 138B, 163-166, 166B, 187-190, 190B, 223-226, 226B, 255-258, 258B, 259-298, 298B, 323-326, 326B, 359-362, 362B, 387-390, 390B, 403-406, 406B, 473-476, 476B, 493-494, 494B, 509-512, 512B, 533-536, 536B, 569-572, 572B, 601-604, 604B, 637-640, 640B</p>
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections Reasoning: Use logic and reason to solve mathematical problems</p>	
<p><i>The student demonstrates an ability to use logic and reason by</i></p>	
<p>[1] PS-4 explaining why a prediction or solution is reasonable (M9.1.3)</p>	<p>403-406, 406B, 413, 437, 487, 531, 623, 631</p>
<p>[1] PS-5 drawing pictures that support mathematical statements (M9.1.2)</p>	<p>163-166, 166B, 187-189, 189B, 533-536, 536B, 601-604, 604B</p>
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections Connections: Apply mathematical concepts and processes to situations within and outside of school.</p>	
<p><i>The student understands and applies mathematical skills and processes across the content strands by</i></p>	
<p>[1] PS-6 using real world context (i.e., self, friends, and family)* (M10.1.2)</p>	<p>23-26, 26B, 43-46, 46B, 75-78, 78B, 111-114, 114B, 135-138, 138B, 163-166, 166B, 187-190, 190B, 223-226, 226B, 255-258, 258B, 259-298, 298B, 323-326, 326B, 359-362, 362B, 387-390, 390B, 403-406, 406B, 473-476, 476B, 493-494, 494B, 509-512, 512B, 533-536, 536B, 569-572, 572B, 601-604, 604B, 637-640, 640B</p>

**Scott Foresman – Addison Wesley enVisionMATH
to the
Alaska Math Performance Standards
(Grade Level Expectations)**

Grade Two

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Content Standard A: Mathematical facts, concepts, principles, and theories Numeration: Understand and use numeration	
Understanding Numbers <i>The student demonstrates conceptual understanding</i>	
• of whole numbers to one thousand by	
[2] N-1 reading, writing, ordering/counting and modeling correspondence of whole numbers (M1.1.1)	99-102, 102B, 103-106, 106B, 107-110, 110B, 111-114, 114B, 511-514, 514B, 515-518, 518B, 519-522, 522B
[2] N-2 modeling and identifying place value positions: ones, tens, and hundreds (M1.1.2)	99-102, 102B, 103-106, 106B, 107-110, 110B, 111-114, 114B, 511-514, 514B, 515-518, 518B, 519-522, 522B
• of simple fractions	
[2] N-3 identifying fractions as equal parts of a whole, a region, or a set (M1.1.5)	351-354, 354B, 355-358, 358B, 359-362, 362B, 367-370, 370B
[2] N-4 reading and writing numerals for simple fractions (M1.1.5)	351-354, 354B, 355-358, 358B, 359-362, 362B, 367-370, 370B, 371-374
Understanding Meaning of Operations <i>The student demonstrates conceptual understanding of mathematical operations by</i>	
[2] N-5 describing or illustrating the processes of addition and subtraction of whole numbers and their relationships (M1.1.3)	3-6, 6B, 7-10, 10B, 11-14, 14B, 15-18, 18B, 19-22, 22B, 23-26, 26B, 27-30, 30B, 35-38, 38B, 39-42, 42B, 43-46, 46B, 47-50, 50B, 51-54, 54B, 5-58, 58A, 59-62, 62B, 63-66, 66B, 71-74, 74B, 75-78, 78B, 79-8, 822B, 83-86, 86B, 87-90, 90B, 91-94, 94B, 171-174, 174B, 175-178, 178B, 179-182, 182B, 183-186, 186B, 187-190,

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
(continued)	190B, 195-198, 198B, 199-202, 202B, 203-206, 206B, 207-210, 210B, 211-214, 214B, 219-222, 222B, 223-226, 226B, 231-234, 234B, 235-238, 238B, 239-242, 242B, 243-246, 246B, 251-254, 254B, 255A-258, 258B, 259-262, 262B, 263-266, 266B, 267-270, 270B, 271-274, 274B, 275-278, 278B, 283-286, 286B, 287-290, 290B, 291-294, 294B, 295-298, 298B, 299-302, 302B, 303-306, 306B, 307-310, 310B
Number Theory <i>The student demonstrates conceptual understanding of number theory by</i>	
[2] N-6 modeling or explaining the commutative and identity properties of addition (M1.1.7)	35-38, 38B, 51-54, 54B
[2] N-7 identifying or using patterns in the number system (skip count by 2's, 5's, or 10's; add or subtract by 10; identify even or odd numbers) (M1.1.6)	127-130, 130B, 131-134, 134B, 357, 512, 527-530, 530B, 590
[2] N-8 modeling fact families (M1.1.3)	
Content Standard A: Mathematical facts, concepts, principles, and theories Measurement: Select and use systems, units, and tools of measurement	
Measurable Attributes <i>The student demonstrates understanding of measurable attributes by</i>	
[2] MEA-1 measuring to the nearest inch or foot (M2.1.3)	391-394
[2] MEA-2 comparing and ordering objects by length, weight, area, time, temperature (M2.1.1)	381, 390, 415-418, 418B, 422, 423-426, 426B, 427-430, 430B, 431-434, 434B, 435-438, 438B, 439-442, 442B, 443-446, 446B, 459-462, 462B, 469
[2] MEA-3 comparing objects to standard and nonstandard units to identify objects that are greater than, less than, and equal to a given unit (M2.1.2)	391-394, 395-396, 423-426, 426B, 427-429, 430B, 435-438, 438B, 439-442, 442B, 443-446, 446B

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
[2] MEA-4 identifying coins, their value, or the value of a set of coins up to one dollar (M2.1.5)	143-146, 146B, 147-150, 150B, 151-154, 154B, 155-158, 158B, 159-162, 162B, 163-166, 166B
Measurement Techniques <i>The student demonstrates ability to use measurement techniques by</i>	
[2] MEA-5 selecting and using appropriate tools of measurement (M2.1.3)	379-382, 382B, 391A-394, 394B, 395-398, 398B, 425-426, 426B, 443-446, 446B, 451-454, 454B, 463-466, 466B
[2] MEA-6 drawing a line segment to the nearest half inch (M2.1.3)	391-394, 394B
[2] MEA-7 telling time to the nearest ¼ hour using analog and digital clocks (M2.1.4)	455-458, 458B
[2] MEA-8 ordering the months of the year (M2.1.1)	463-466, 466B
[2] MEA-9 writing the date using words and numbers (day, month, year) (M2.1.1)	463-466, 466B
[2] MEA-10 counting change (coins) up to a dollar (M2.1.5)	143-146, 146B, 147-150, 150B, 151-154, 154B, 155-158, 158B, 159-162, 162B
[2] MEA-11 recognizing money symbols including a decimal point (\$,¢, .) (M2.1.5)	143-146, 146B, 147-150, 150B, 151-154, 154B, 155-158, 158B, 159-162, 162B
[2] MEA-12 identifying equal values of coins up to a dollar (M2.1.5)	155-158, 158B, 163-166, 166B
Content Standard A: Mathematical facts, concepts, principles, and theories Estimation and Computation: Perform basic arithmetic functions, make reasoned estimates, and select and use appropriate methods or tools	
Estimation <i>The student determines reasonable answers to real-life situations, paper/pencil computations, or calculator results by</i>	
[2] E&C-1 estimating “how many” and “how much” in a given set up to 30	287-290, 363-366, 366B, 459- 462, 462B

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
[2] E&C-2 estimating the results of simple addition and subtraction problems up to 100 (M3.1.1)	287-290, 290B, 299-302, 302B, 555-558, 558B, 571-574, 574B
[2] E&C-3 identifying whether estimation or counting is appropriate (M3.1.1)	287-290B, 299-302B, 36-366B, 459- 463B, 555-558B, 571-574B
Computation <i>The student accurately solves problems (including real-world situations) involving</i>	
[2] E&C-4 recalling addition and subtraction facts to 20 (M3.1.2)	23-26, 26B, 35-38, 38B, 55-58, 59-62, 62B, 71-74, 74B, 75-78, 78B, 79-82, 82B, 83-86, 86B, 87-90, 90B
[2] E&C-5 solving two-digit addition and subtraction problems using a variety of models and algorithms (M3.1.3)	171-174, 174B, 175-178, 178B, 179-182, 182B, 195-198, 198B, 199-202, 202B, 203-206, 206B, 207-210, 210B, 227-230, 230B, 235-238, 238B, 259-262, 262B, 267-270, 270B
[2] E&C-6 using repeated addition with objects to model multiplication (M3.1.4)	591-594, 594B
[2] E&C-7 using equal shares with objects to model division (M3.1.4)	619-622, 622B
Content Standard A: Mathematical facts, concepts, principles, and theories	
Functions and Relationships: Represent, analyze, and use patterns, relations, and functions	
Describing Patterns and Functions <i>The student demonstrates conceptual understanding of functions, patterns, or sequences by</i>	
[2] F&R-1 identifying and continuing patterns, including numbers (M4.1.1)	127-130, 130B, 131-134, 134B, 187-190, 190B, 543-546, 546B, 635-638, 638B
[2] F&R-2 describing a rule or relation that determines and continues a sequence or pattern (M4.1.1)	127-130, 130B, 131-134, 134B, 187-190, 190B, 543-546, 546B, 635-638, 638B

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Modeling and Solving Equations and Inequalities <i>The student demonstrates algebraic thinking by</i>	
[2] F&R-3 solving a problem with an unknown (e.g., $7 + ? = 10$) (M4.1.4)	35-38, 39-42, 42B, 55-58, 59-62, 62B, 75-78, 79-82, 82B, 83-86, 87-90, 90B, 199-202, 203-206, 207-210
[2] F&R-4 using the terms equal to, greater than, and less than for numbers up to 100 (M4.1.4)	111-114B, 115-118, 118B, 511-514, 523-526, 531-534B
Content Standard A: Mathematical facts, concepts, principles, and theories Geometry: Construct, transform, and analyze geometric figures.	
Geometric Relationships <i>The student demonstrates an understanding of geometric relationships by</i>	
[2] G-1 describing attributes of a triangle, circle, square, and rectangle (M5.1.1)	315-318, 318B, 319-322, 322B, 323-326, 326B
[2] G-2 identifying and classifying 3-dimensional shapes (e.g., cone, sphere and cylinder) (M5.1.1)	315-318, 318B
[2] G-3 relating real-world examples to the ideas and concepts of geometry* (M5.1.2)	316-318, 319, 322
[2] G-4 constructing, comparing, classifying, and describing the relationship among geometric figures (M5.1.2)	315-318, 319-322, 323-326, 327-330, 331-334, 335-338

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Similarity, Congruence, Symmetry, and Transformation of Shapes <i>The student demonstrates conceptual understanding of similarity, congruence, symmetry, or transformations of shapes by</i>	
[2] G-5 creating simple shapes using concrete materials/manipulatives (M5.1.3)	323-326, 326B
[2] G-6 identifying or drawing lines of symmetry for simple shapes (M5.1.3)	339-342, 342B
Perimeter, Area, Volume, and Surface Area <i>The student solves problems using perimeter or area by</i>	
[2] G-7 explaining the difference between perimeter and area (M5.1.4)	399-402, 402B, 403-406, 406B
[2] G-8 determining perimeter and area of rectangular shapes using grid paper and/or manipulatives (M5.1.4)	399-402, 402B, 403-406, 406B, 407-410, 410B
Position and Direction <i>The student demonstrates understanding of position and direction by</i>	
[2] G-9 describing relative locations of objects using directional terms (inside, outside, right, left) (M5.1.6)	14
[2] G-10 creating a simple map to show location of objects (M5.1.6)	Related content: 491-494
Construction <i>The student demonstrates a conceptual understanding of geometric drawings or constructions by</i>	
[2] G-11 drawing, copying, or describing a variety of shapes* (M5.1.7)	315-318, 319-322, 323-326, 327-330, 331-334, 335-338

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Content Standard A: Mathematical facts, concepts, principles, and theories Statistics and Probability: Formulate questions, gather and interpret data, and make predictions	
Data Display <i>The student demonstrates an ability to classify and organize data by</i>	
[2] S&P-1 constructing a variety of graphs from realistic situations (M6.1.1)	479-482, 482B, 483-486, 486B, 487-490, 490B, 583-586, 586B
[2] S&P-2 collecting, recording, interpreting, and representing data in a variety of ways (M6.1.1)	479-482, 482B, 483-486, 486B, 487-490, 490B, 503-506, 506B, 583-586, 586B
Analysis and Central Tendency <i>The student demonstrates an ability to analyze data (comparing, explaining, interpreting, evaluating; or drawing or justifying conclusions) by</i>	
[2] S&P-3 describing data from a variety of graphs (e.g., newspapers, magazines, texts, computers, and other sources) (M6.1.2)	479-482, 482B, 483-486, 486B, 487-490, 490B, 503-506, 506B, 583-586, 586B
Probability <i>The student demonstrates a conceptual understanding of probability and counting techniques by</i>	
[2] S&P-4 predicting, interpreting, and comparing data using events or repeated observations* (M6.1.4)	495-498, 498B, 499-502, 502B
[2] S&P-5 recognizing the difference between chance and certainty (M6.1.4)	499A-502B

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections</p> <p>Problem Solving: Understand and be able to select and use a variety of problem-solving strategies</p>	
<p><i>The student demonstrates an ability to problem solve by</i></p>	
<p>[2] PS-1 creating and solving a variety of problems using appropriate strategies (M7.1.1 & M7.1.2)</p>	<p>27-30, 30B, 63-66, 66B, 91-94, 94B, 135-138, 138B, 163-165, 165B, 187-190, 190B, 211-214, 214B, 243-245, 245B, 275-278, 278B, 307-310, 310B, 343-345, 345B, 371-374, 374B, 443-446, 446B, 471-473, 473B, 503-505, 505B, 543-546, 546B, 583-586, 586B, 611-614, 614B, 635-638, 638B</p>
<p>[2] PS-2 choosing appropriate operations to solve a given problem (M7.1.2)</p>	<p>63-66, 66B, 243-245, 245B, 307-310, 310B, 471-473, 473B, 611-614, 614B</p>
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections</p> <p>Communication: Form and use appropriate methods to define and explain mathematical relationships</p>	
<p><i>The student communicates his or her mathematical thinking by</i></p>	
<p>[2] PS-3 translating problems from everyday language into math language and symbols (+, -, =, <, >) (M8.1.1)</p>	<p>63-66, 66B, 243-245, 245B, 307-310, 310B, 471-473, 473B, 611-614, 614B</p>
<p>[2] PS-4 using everyday language to explain thinking about problem solving strategies and solutions to problems * (M8.1.3)</p>	<p>63-66, 66B, 243-245, 245B, 307-310, 310B, 371-374, 374B, 471-473, 473B, 543-546, 546B, 611-614, 614B, 635-638, 638B</p>

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
<p>[2] PS-5 using manipulatives, models, pictures, and language to represent and communicate mathematical ideas (M8.1.2)</p>	<p>27-30, 30B, 63-66, 66B, 91-94, 94B, 135-138, 138B, 163-165, 165B, 187-190, 190B, 211-214, 214B, 243-245, 245B, 275-278, 278B, 307-310, 310B, 343-345, 345B, 371-374, 374B, 443-446, 446B, 471-473, 473B, 503-505, 505B, 543-546, 546B, 583-586, 586B, 611-614, 614B, 635-638, 638B</p>
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections Reasoning: Use logic and reason to solve mathematical problems</p>	
<p><i>The student demonstrates an ability to use logic and reason by</i></p>	
<p>[2] PS-6 explaining why a prediction, estimation, or solution is reasonable (M9.1.3)</p>	<p>91-94, 275-278, 307-310, 471-474</p>
<p>[2] PS-7 drawing pictures that support or refute mathematical statements (M9.1.2)</p>	<p>63-66, 66B, 243-245, 245B, 611-614, 614B</p>
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections Connections: Apply mathematical concepts and processes to situations within and outside of school.</p>	
<p><i>The student understands and applies mathematical skills and processes across the content strands by</i></p>	
<p>[2] PS-8 using real world context (e.g., self, friends, and family)* (M10.1.2)</p>	<p>27-30, 30B, 63-66, 66B, 91-94, 94B, 135-138, 138B, 163-165, 165B, 187-190, 190B, 211-214, 214B, 243-245, 245B, 275-278, 278B, 307-310, 310B, 343-345, 345B, 371-374, 374B, 443-446, 446B, 471-473, 473B, 503-505, 505B, 543-546, 546B, 583-586, 586B, 611-614, 614B, 635-638, 638B</p>

**Scott Foresman – Addison Wesley enVisionMATH
to the
Alaska Math Performance Standards
(Grade Level Expectations)**

Grade Three

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Content Standard A: Mathematical facts, concepts, principles, and theories Numeration: Understand and use numeration	
Understanding Numbers <i>The student demonstrates conceptual understanding</i>	
▪ of whole numbers to one thousand by	
[3] N-1 reading, writing, ordering, or [counting L] (M1.1.1)	4B, 4-5, 6B, 6-7, 12-13, 16B, 16-17, 35
[3] N-2 modeling (base ten blocks) or identifying place value positions to thousands (M1.1.2)	4B, 4-5, 6B, 6-7
[3] N-3 using appropriate representations of ordinal or cardinal numbers (M1.1.4)	10B, 10-11
• of simple fractions with denominators 2, 3, 4 or 10 by	
[3] N-4 identifying, describing with explanations, or illustrating equal parts of a whole, a region, or a set (using models) (M1.1.5)	276B, 276-277, 278A-278B, 278-279, 280B, 280-281
[3] N-5 identifying, describing with explanations, or illustrating equivalent representation of fractions (using models) (M1.1.5)	276A-276B, 284A-284B, 284-285

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Understanding Meaning of Operations <i>The student demonstrates conceptual understanding of mathematical operations by</i>	
[3] N-6 [using models, explanations, number lines, or real-life situations L] describing or illustrating the processes of addition and subtraction of whole numbers and their relationships (M1.1.3)	32, 34-35, 50-52, 58B, 58-59
Number Theory <i>The student demonstrates conceptual understanding of number theory by</i>	
[3] N-7 [describing or illustrating identity property of addition L] (M1.1.7)	32B, 32-33, 95
[3] N-8 [modeling (with manipulatives) and explaining commutative property of addition L] (M1.1.7)	32B, 32-33, 95
[3] N-9 identifying or using patterns in the number system (skip count by 2's, 5's, or 10's; add or subtract by 10; even or odd numbers) (M1.1.6)	122B, 122-123, 126-127, 128-129
Content Standard A: Mathematical facts, concepts, principles, and theories Measurement: Select and use systems, units, and tools of measurement	
Measurable Attributes <i>The student demonstrates understanding of measurable attributes by</i>	
[3] MEA-1 [estimating length to the nearest inch or foot L] (M2.1.3)	328B, 328-331
[3] MEA-2 comparing and ordering objects according to measurable attribute (calendar, length, [temperature, weight, area, or volume L]) (M2.1.1)	17, 338-339, 340B, 340-341

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
[3] MEA-3 identifying or describing objects that are greater than, less than, or equal to a unit of measure (standard or non-standard) (M2.1.2)	17, 20, 328-329
[3] MEA-4 selecting an appropriate unit of English, metric, or non-standard measurement to estimate the length, time, weight, or temperature (M2.1.3)	334-335, 338-339, 340-341, 350-351, 352-353, 402-403
[3] MEA-5 identifying coins, their value, or the value of a set of coins (M2.1.5)	18B, 18-19
Measurement Techniques <i>The student demonstrates ability to use measurement techniques by</i>	
[3] MEA-6 measuring length to the nearest half-inch (M2.1.3)	332-333
[3] MEA-7 telling time to the nearest $\frac{1}{4}$ hour using an analog clock or [distinguishing morning, afternoon, or evening L] (M2.1.4)	392B, 392-393
[3] MEA-8 determining elapsed time using a calendar (M2.2.5)	400A-400B, 400-401, 404-405
[3] MEA-9 [counting back change from \$1.00 L] (M2.2.6)	22B, 22-23
Content Standard A: Mathematical facts, concepts, principles, and theories Estimation and Computation: Perform basic arithmetic functions, make reasoned estimates, and select and use appropriate methods or tools	
Estimation <i>The student determines reasonable answers to real-life situations, paper/pencil computations, or calculator results by</i>	
[3] E&C-1 finding “how many” or “how much” to 50 (M3.1.1)	22-23, 58-59, 66-67, 78-79

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
[3] E&C-2 estimating the results of simple addition and subtraction problems up to 1,000 (M3.1.1)	44B, 44-45, 48-49, 54-55, 74B, 74-75
Computation <i>The student accurately solves problems (including real-world situations) involving</i>	
[3] E&C-3 [recalling basic addition and subtraction facts, sums to 20, and corresponding subtraction facts efficiently L] (M3.1.2)	66B, 66-67
[3] E&C-4 adding or subtracting two-digit whole numbers (M3.1.3)	48-49, 56-57, 72-73, 86B, 86-87, 88-89
[3] E&C-5 using repeated addition to model multiplication with whole numbers with products to 25 (M3.1.4)	108B, 108-109, 110-111
[3] E&C-6 using grouping or “sharing equally” to model division with whole numbers to 25 (M3.1.4)	164B, 164-165, 166B, 166-168
Content Standard A: Mathematical facts, concepts, principles, and theories Functions and Relationships: Represent, analyze, and use patterns, relations, and functions	
Describing Patterns and Functions <i>The student demonstrates conceptual understanding of functions, patterns, or sequences by</i>	
[3] F&R-1 identifying a missing element in a pattern up to the next three terms (identifying a number using addition or subtraction or objects); or explaining how missing elements could be found (M4.1.1)	206-207, 208B, 208-209, 210B, 210-211

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
F&R-2 [expressing a generalization of a pattern using words L] (M4.1.1 & M4.1.2)	212B, 212-213, 218A-218B, 218-219
[3] F&R-3 [using manipulatives, including a calculator, as tools when describing, extending, or representing patterns L] (M4.1.1 & M4.1.3)	206-207, 210B, 212-214, 218B, 218-219
Modeling and Solving Equations and Inequalities <i>The student demonstrates algebraic thinking by</i>	
[3] F&R-4 using an open number sentence (addition or subtraction) to solve for an unknown represented by a box or circle (e.g., $5+ \square=16$, $\square-7=4$, $5+2= \square$) (M4.1.4)	32-33, 71, 98-100, 300
[3] F&R-5 using appropriate vocabulary or symbols for greater than, less than, or equal to (M4.1.4)	12-13, 43, 222-223, 288B, 288-289, 290-293
Content Standard A: Mathematical facts, concepts, principles, and theories Geometry: Construct, transform, and analyze geometric figures.	
Geometric Relationships <i>The student demonstrates an understanding of geometric relationships by</i>	
[3] G-1 using the number or length of sides to identify, describe, [model L], or compare triangles or rectangles (including squares) (M5.1.1)	248B, 248-249, 250B, 250-251
[3] G-2 using the attributes and properties of plane figures to [model L], identify, compare, or describe plane figures (circles, rectangles, squares, and triangles)[and solid figures (cubes, cylinders, or spheres) L] (M5.1.1 & M5.1.2)	234B, 234-237, 238-240

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Similarity, Congruence, Symmetry, and Transformation of Shapes <i>The student demonstrates conceptual understanding of similarity, congruence, symmetry, or transformations of shapes by</i>	
[3] G-3 identifying, creating, or drawing lines of symmetry for real-world objects (e.g., block letters, flags, insects) (M5.1.3)	264B, 264-265, 266B, 266-267, 268-269
[3] G-4 comparing or describing shapes (circles, triangles, or rectangles) as “larger than,” “smaller than,” or “congruent to,” a given shape (M5.1.3)	260A-260B, 260-262
[3] G-5 illustrating or identifying the results of transformations (slides) of polygons (M5.1.5)	260A-260B, 260-261, 263
Perimeter, Area, Volume, and Surface Area <i>The student solves problems using perimeter or area by</i>	
[3] G-6 estimating or determining area or perimeter of rectangular or square shapes on grids (M5.1.4)	368B, 368-369, 370B, 370-371, 376-377
Position and Direction <i>The student demonstrates understanding of position and direction by</i>	
[3] G-7 [using directional terms (inside, outside, right, left, horizontal, vertical) to describe relative location of objects in a picture L] (M5.1.6)	342-343
Construction <i>The student demonstrates a conceptual understanding of geometric drawings or constructions by</i>	
[3] G-8 [drawing real-world objects that consist of geometric shapes (squares, rectangles, triangles, or circles) L] (M5.1.7)	234 B, 234-237

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Content Standard A: Mathematical facts, concepts, principles, and theories Statistics and Probability: Formulate questions, gather and interpret data, and make predictions	
Data Display <i>The student demonstrates an ability to classify and organize data by</i>	
[3] S&P-1 [designing an investigation and collecting, recording L], organizing, displaying, or explaining the classification of data in real-world problems (e.g., literature, self, or family), using bar graphs, and [Venn diagrams L] (M6.1.1, M6.1.2, & M6.1.5)	121, 458B, 458-459, 460-461, 466-467, 482-483
Analysis and Central Tendency <i>The student demonstrates an ability to analyze data (comparing, explaining, interpreting, evaluating; or drawing or justifying conclusions) by</i>	
[3] S&P-2 using information from a variety of displays (tallies, tables, pictographs, bar graphs, or [Venn diagrams L] (M6.1.2)	121, 458-459, 460-461, 464-465, 482-483
[3] S&P-3 using the terms “maximum” or “minimum” (M6.1.3)	Related content: 460-462, 464-465, 466-467, 482-483; range - introduced in grade 4
Probability <i>The student demonstrates a conceptual understanding of probability and counting techniques by</i>	
[3] S&P-4 [explaining the differences between chance and certainty or recognizing events that may be certain or chance events L] (M6.1.4)	472-475, 476B, 476-477
[3] S&P-5 [Finding and recording L] and making predictions about the likelihood of outcomes of a simple probability experiment (e.g., spinner, tossing a coin) (M6.1.4)	472-473, 476-477, 478-479

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections</p> <p>Problem Solving: Understand and be able to select and use a variety of problem-solving strategies</p>	
<p><i>The student demonstrates an ability to problem solve by</i></p>	
<p>[3] PS-1 selecting and applying an appropriate strategy (e.g., guess and check; draw a picture; make a model, extend a pattern) to solve a variety of problems (M7.1.2)</p>	<p>24B, 24-25, 25B, 58B, 58-59, 59B, 98B, 98-101, 101B, 118B, 118-121, 121B, 132-133B, 154B, 154-157, 157B, 174B, 174-177, 177B, 196B, 196-199, 199B, 224B, 224-227, 227B, 252B, 252-253B, 268B, 268-269, 269B, 298B, 298-299, 299B, 316B, 316-317B, 342B, 342-343, 343B, 360B, 360-361, 361B, 374B, 374-375, 375B, 384B, 384-385, 385B, 404B, 404-405, 405B, 426B, 426-427, 429B, 448B, 448-449, 451B, 482B, 482-483, 483B</p>
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections</p> <p>Communication: Form and use appropriate methods to define and explain mathematical relationships</p>	
<p><i>The student communicates his or her mathematical thinking by</i></p>	
<p>[3] PS-2 representing mathematical problems using manipulatives, models, pictures, and/or everyday language; or using everyday language to explain thinking about the problem-solving strategies and solutions to problems (M8.1.1, M8.1.2, & M8.1.3)</p>	<p>24B, 24-25, 25B, 58B, 58-59, 59B, 98B, 98-101, 101B, 118B, 118-121, 121B, 132-133B, 154B, 154-157, 157B, 174B, 174-177, 177B, 196B, 196-199, 199B, 224B, 224-227, 227B, 252B, 252-253B, 268B, 268-269, 269B, 298B, 298-299, 299B, 316B, 316-317B, 342B, 342-343, 343B, 360B, 360-361, 361B, 374B, 374-375, 375B, 384B, 384-385, 385B, 404B, 404-405, 405B, 426B, 426-427, 429B, 448B, 448-449, 451B, 482B, 482-483, 483B</p>

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections Reasoning: Use logic and reason to solve mathematical problems</p>	
<p><i>The student demonstrates an ability to use logic and reason by</i></p>	
<p>[3] PS-3 drawing conclusions about mathematical problems; or finding examples that support or refute mathematical statements (M9.1.1 & M9.1.2)</p>	<p>224-225, 252-253, 374-375, 473, 482-483</p>
<p>[3] PS-4 explaining whether or not a prediction, estimation, or solution is reasonable (M9.1.3)</p>	<p>78B, 78-79, 196-198, 214, 252-253, 403, 426-428, 415, 473</p>
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections Connections: Apply mathematical concepts and processes to situations within and outside of school.</p>	
<p><i>The student understands and applies mathematical skills and processes across the content strands by</i></p>	
<p>[3] PS-5 using real-world contexts such as literature, self, and family (M10.1.1. & M10.1.2)</p>	<p>458-459, 464-465, 466B, 466-467, 482-483</p>

**Scott Foresman – Addison Wesley enVisionMATH
to the
Alaska Math Performance Standards
(Grade Level Expectations)**

Grade Four

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Content Standard A: Mathematical facts, concepts, principles, and theories Numeration: Understand and use numeration	
Understanding Numbers <i>The student demonstrates conceptual understanding</i>	
• of whole numbers to ten thousands by	
[4] N-1 reading, writing, ordering, or [counting L] (M1.2.1)	4-6, 8B, 8-9, 10B, 10-13, 113
[4] N-2 modeling (base ten blocks) or identifying place value positions to ten thousands (M1.2.2)	4B, 4-6
[4] N-3 converting between whole numbers expressed in expanded notation and standard form (M1.2.4)	4B, 4-6, 8-9
• of fractions with denominators 2 through 12	
[4] N-4 identifying, describing with explanations, or illustrating equal parts of a whole, a region, or a set (using models) (M1.2.4)	216B, 216-218, 224B, 224-226
[4] N-5 identifying, describing with explanations, or illustrating equivalent fractions or mixed numbers (M1.2.4 & M3.2.5)	224B, 224-226, 228B, 228-229, 230B, 230-232, 234-235, 238B, 238-239, 241
Understanding Meaning of Operations <i>The student demonstrates conceptual understanding of mathematical operations by</i>	
[4] N-6 [using models, explanations, number lines, or real-life situations L] describing or illustrating the processes of multiplication (M1.2.3)	182B, 182-183

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
[4] N-7 [using models, explanations, number lines, or real-life situations L] describing or illustrating the relationship between multiplication and addition (M1.2.3)	54B, 54-56
[4] N-8 [using models, explanations, number lines, or real-life situations L] describing or illustrating the relationship between multiplication and division (M1.2.3)	80B, 80-81, 84B, 84-85
[4] N-9 [using models, explanations, number lines, or real-life situations L] describing or illustrating the process of adding or subtracting fractions with like denominators (2 to 12) (M1.2.5)	250B, 250-253
Number Theory <i>The student demonstrates conceptual understanding of number theory by</i>	
[4] N-10 [describing or illustrating identity property of multiplication L] (M1.2.7)	60B, 60-61, 79
[4] N-11 [modeling (with manipulatives) and explaining commutative property of multiplication L] (M1.2.7)	60B, 60-61, 79
[4] N-12 identifying or listing factors and multiples of a number (M1.2.6)	58B, 58-59, 66B, 66-67
Content Standard A: Mathematical facts, concepts, principles, and theories Measurement: Select and use systems, units, and tools of measurement	
Measurable Attributes <i>The student demonstrates understanding of measurable attributes by</i>	
[4] MEA-1 [estimating length to the nearest half-inch or centimeter L] (M2.2.1)	364-365, 374B, 374-375

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
[4] MEA-2 [estimating temperature (degree Celsius or Fahrenheit) or weight (pounds or kilograms) to the nearest unit L] (M2.2.1)	368B, 368-369, 378B, 378-379, 390B, 390-391
[4] MEA-3 identifying or using equivalent measures for length (inch, foot, yard: 12 inches = 1 foot, 3 feet = 1 yard, 36 inches = 1 yard; centimeter, meter: 100 centimeters = 1 meter) (M2.2.2)	364-365, 370-372, 380B, 380-382
[4] MEA-4 selecting an appropriate unit of metric measurement to estimate length, weight or temperature (M2.2.1)	374B, 374-375, 378B, 378-379, 390B, 390-391
Measurement Techniques The student demonstrates ability to use measurement techniques using pictorial representations [or manipulatives L] in real-world contexts by	
[4] MEA-5 measuring length to the nearest half-inch or [centimeter L] (M2.2.1, M2.2.3, & M2.2.4)	264-265, 374-375
[4] MEA-6 telling time in 5 minute increments using analog clocks (M2.2.5)	384-385, 385A-385B, 386A-386B, 386-387, 388-389, 389A-389B
[4] MEA-7 [counting back change from \$5.00 L] (M2.2.6)	18B, 18-19
[4] MEA-8 determining possible combinations of coins and bills to given amounts (M2.2.6)	16B, 16-17
[4] MEA-9 [simulating multiple purchases and calculating the amount of change from a given bill(s) up to \$50.00 L] (M2.2.6)	18B, 18-19, 19B

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
<p>Content Standard A: Mathematical facts, concepts, principles, and theories</p> <p>Estimation and Computation: Perform basic arithmetic functions, make reasoned estimates, and select and use appropriate methods or tools</p>	
<p>Estimation <i>The student determines reasonable answers to real-life situations, paper/pencil computations, or calculator results by</i></p>	
<p>[4] E&C-1 identifying or using [a variety of L] strategies (e.g., rounding to appropriate place value, multiplying by powers of ten, using front-end estimation) to estimate the results of whole number addition or subtraction computations to 10,000, or simple multiplication or division (M3.2.1)</p>	<p>32B, 32-33, 100B, 100-101, 142B, 142-143, 144B, 144-145, 150B, 150-151, 166B, 166-167</p>
<p>Computation <i>The student accurately solves problems (including real-world situations) involving</i></p>	
<p>[4] E&C-2 [recalling basic multiplication facts, products to 100, and corresponding division facts efficiently L] (M3.2.2)</p>	<p>80-81, 84-85</p>
<p>[4] E&C-3 adding or subtracting three-digit whole numbers (M3.2.3)</p>	<p>36B, 36-37, 40B, 40-41, 42B, 42-43</p>
<p>[4] E&C-4 multiplying two-digit numbers by single-digit numbers (M3.2.4)</p>	<p>110B, 110-112</p>
<p>[4] E&C-5 adding fractions with like denominators to 12 (M3.2.3)</p>	<p>250B, 250-253</p>
<p>Content Standard A: Mathematical facts, concepts, principles, and theories</p> <p>Functions and Relationships: Represent, analyze, and use patterns, relations, and functions</p>	

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Describing Patterns and Functions <i>The student demonstrates conceptual understanding of functions, patterns, or sequences by</i>	
[4] F&R-1 extending patterns that use addition, subtraction, multiplication, or symbols, up to 10 terms, represented by models (function machine), tables, sequences, or in problem situations (M4.2.1)	128B, 128-129, 130-131, 132-133, 237, 240, 356B, 356-357, 437
[4] F&R-2 [using rules to express the generalization of a pattern using words, lists, or tables L] (M4.2.4)	128B, 128-129, 130B, 130-131, 132B, 132-133
[4] F&R-3 [using manipulatives, including a calculator, as tools when describing, extending, or representing a number sequence L] (M4.2.1 &M4.2.3)	128-129, 130-131, 132-133
Modeling and Solving Equations and Inequalities <i>The student demonstrates algebraic thinking by</i>	
[4] F&R-4 using an open number sentence (addition, subtraction or multiplication) to solve for an unknown represented by a box or circle (e.g., $9 \cdot \square = 36$, $\square \cdot 8 = 56$, $3 \cdot \square = 6$) (M4.2.5)	31, 79, 80
Content Standard A: Mathematical facts, concepts, principles, and theories Geometry: Construct, transform, and analyze geometric figures.	
Geometric Relationships <i>The student demonstrates an understanding of geometric relationships by</i>	
[4] G-1 using the attributes and properties of angles to identify and compare triangles (acute, right, or obtuse) and regular polygons (M5.2.1)	198B, 198-199, 200B, 200-201, 202B, 202-203, 204B, 204-205, 206B, 206-207

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
<p>[4] G-2 using the attributes and properties of solid figures (edges, vertices, or the number or shape of faces) to [model L], identify, compare, or describe solid figures (cubes, cylinders, rectangular prisms, or spheres) (e.g., cans, dice, boxes, balls) (M5.2.2)</p>	346B, 346-349, 350B, 350-351
<p>Similarity, Congruence, Symmetry, and Transformation of Shapes <i>The student demonstrates conceptual understanding of similarity, congruence, symmetry, or transformations of shapes by</i></p>	
<p>[4] G-3 identifying or drawing all lines of symmetry to identify figures that are symmetrical (M5.2.3)</p>	456B, 456-457, 458B, 458-459
<p>[4] G-4 identifying shapes that are congruent (M5.2.3)</p>	454B, 454-455, 456-457
<p>[4] G-5 illustrating or identifying the results of transformations (turns) of polygons by continuing a given pattern (M5.2.5)</p>	452B, 452-453, 454B, 454-455, 458B, 458-459
<p>Perimeter, Area, Volume, and Surface Area <i>The student solves problems using perimeter or area by</i></p>	
<p>[4] G-6 estimating or determining area or perimeter of rectangles, squares and irregular shapes on grids with a key or ruler (M5.2.4)</p>	316B, 316-317, 318B, 318-319, 320B, 320-322, 324B, 326B, 328B, 328-329

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Position and Direction <i>The student demonstrates understanding of position and direction by</i>	
[4] G-7 [describing the relative location of places or objects on a map using compass directions of north, south, east or west L] (M5.2.6)	Related content: 408B, 408-409 (graphing on coordinate plane)
Construction <i>The student demonstrates a conceptual understanding of geometric drawings or constructions by</i>	
[4] G-8 [identifying or drawing parallel or intersecting line segments L] (M5.2.7)	196B, 196-197
Content Standard A: Mathematical facts, concepts, principles, and theories Statistics and Probability: Formulate questions, gather and interpret data, and make predictions	
Data Display <i>The student demonstrates an ability to classify and organize data by</i>	
[4] S&P-1 [designing an investigation and collecting L], organizing or displaying, using appropriate scale, data in real-world problems (e.g., social studies, friends, or school), using bar graphs, tables, charts, or diagrams with whole numbers up to 25 (M6.2.1 & M6.2.2)	402B, 402-403, 406B, 406-407, 420B, 420-421

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
<p>Analysis and Central Tendency <i>The student demonstrates an ability to analyze data (comparing, explaining, interpreting, evaluating; or drawing or justifying conclusions) by</i></p>	
<p>[4] S&P-2 using information from a variety of displays (tables, bar graphs, or Venn diagrams) (M6.2.2)</p>	<p>177, 402-403, 404B, 404-405, 406-407, 410B, 410-411, 416B, 416-417, 418B, 418-419, 420-421</p>
<p>[4] S&P-3 using mode or range with up to 5 pieces of data with a value of 10 or less each (M6.2.3)</p>	<p>414B, 414-415, 416-417</p>
<p>Probability <i>The student demonstrates a conceptual understanding of probability and counting techniques by</i></p>	
<p>[4] S&P-4 predicting or explaining the probability of all possible outcomes in a simple experiment (e.g., spinners, dice, coins) (M6.2.4)</p>	<p>470B, 470-471, 472B, 472-474</p>
<p>[4] S&P-5 determining possible combinations in a given situation involving up to 3 items (e.g., how many ways can you choose two fruits out of a basket containing oranges and bananas? –three ways: two bananas; one orange and one banana; and two oranges) (M6.2.5)</p>	<p>468B, 468-469</p>

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections</p> <p>Problem Solving: Understand and be able to select and use a variety of problem-solving strategies</p>	
<p><i>The student demonstrates an ability to problem solve by</i></p>	
<p>[4] PS-1 selecting and applying appropriate strategy (e.g., lists, guess and check; extended patterns) to solve a variety of problems (M7.2.2)</p>	<p>20B, 20-21, 34B, 34-35, 35B, 44B, 44-45, 47B, 68B, 68-, 69B, 86B, 86-87, 89B, 116B, 116-117, 119B, 134B, 134-135, 135B, 208B, 208-209, 209B, 258B, 258-261, 261B, 282B, 282-283, 283B, 336B, 336-337, 339B, 356B, 356-357, 357B, 420B, 420-421, 423B, 460B, 460-461, 461B</p>
<p>[4] PS-2 explaining and verifying results of an original problem and applying what was learned to new situations (M7.2.3)</p>	<p>16-17, 156B, 156-157, 186-187, 336-337</p>
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections</p> <p>Communication: Form and use appropriate methods to define and explain mathematical relationships</p>	
<p><i>The student communicates his or her mathematical thinking by</i></p>	
<p>[4] PS-3 representing problems using mathematical language including concrete, pictorial, and/or symbolic representation; or by organizing and communicating mathematical problem-solving strategies and solutions to problems (M8.2.1, M8.2.2, & M8.2.3)</p>	<p>20B, 20-21, 34-35, 44B, 44-46, 68-69, 86B, 86-88, 116-118, 134B, 134-135, 146-148, 258-259, 282-283, 460-461, 476-477</p>

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections Reasoning: Use logic and reason to solve mathematical problems</p>	
<p><i>The student demonstrates an ability to use logic and reason by</i></p>	
<p>[4] PS-4 drawing conclusions about mathematical problems (given a rule or generalization, determine whether the example fits) or justifying answers and mathematical strategies (M9.2.1, M9.2.2, & M9.2.3)</p>	<p>102B, 102-104, 134-135, 238-239</p>
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections Connections: Apply mathematical concepts and processes to situations within and outside of school.</p>	
<p><i>The student understands and applies mathematical skills and processes across the content strands by</i></p>	
<p>[4] PS-5 using real-world contexts such as social studies, friends, and school (M10.2.1 & M10.2.2)</p>	<p>39, 81, 179, 476-477, also most problem solving lessons with accompanying Interactive Learning. For example: 20B, 20-21 and 420B, 420-421.</p>

**Scott Foresman – Addison Wesley enVisionMATH
to the
Alaska Math Performance Standards
(Grade Level Expectations)
Grade Five**

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Content Standard A: Mathematical facts, concepts, principles, and theories Numeration: Understand and use numeration	
Understanding Numbers <i>The student demonstrates conceptual understanding</i>	
• of whole numbers to millions by	
[5] N-1 reading, writing, ordering, or [counting L] (M1.2.1)	4B, 4-5, 6B, 6-8
[5] N-2 identifying place value positions from tenths to millions (M1.2.2)	4b, 4-5, 10B, 10-11
[5] N-3 converting between whole numbers written in expanded notation and standard form (M1.2.4)	4-5, 10-11
• of positive fractions with denominators 1 through 12 and 100 with proper and mixed numbers and benchmark percents (10%, 25%, 50%, 75%, 100%) by modeling, identifying, describing with explanations, or illustrating	
[5] N-4 equal parts of a whole, a region, or a set (M1.2.4)	220b, 220-222, 398B, 398-399, 400B, 400-401
[5] N-5 equivalent fractions or mixed numbers (M1.2.4 & M3.2.5)	226B, 226-227, 228B, 228-229, 234B, 234-236

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Understanding Meaning of Operations <i>The student demonstrates conceptual understanding of mathematical operations by</i>	
[5] N-6 [using models, explanations, number lines, or real-life situations L] describing or illustrating the process of division and its relationship to subtraction or to multiplication (M1.2.3)	90B, 90-92, 98B, 98-100
[5] N-7 [using models, explanations, number lines, or real-life situations L] describing or illustrating the process of adding and subtracting proper fractions or mixed numbers (like denominators) (M1.2.5)	256B, 256-258, 264B, 264-265, 266B, 266-267, 268B, 268-269
[5] N-8 [using models, explanations, number lines, or real-life situations L] describing or illustrating the process of adding or subtracting decimals that represent money (M1.2.5)	42B, 42-43, 44B, 44-45
Number Theory <i>The student demonstrates conceptual understanding of number theory by</i>	
[5] N-9 describing or illustrating commutative or identity properties of addition or multiplication using models or explanations (M1.2.7)	24B, 24-25, 58B, 58-59, 223
[5] N-10 identifying or listing factors and multiples common to a pair or set of numbers (M1.2.6)	60B, 60-61, 102B, 102-104, 232B, 232-233, 260B, 260-261

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Content Standard A: Mathematical facts, concepts, principles, and theories Measurement: Select and use systems, units, and tools of measurement	
Measurable Attributes <i>The student demonstrates understanding of measurable attributes by</i>	
[5] MEA-1 [estimating length to the nearest one-fourth inch or centimeter L] (M2.2.1)	296B, 296-297, 298B, 298-299
[5] MEA-2 [estimating temperature (degree Celsius or Fahrenheit, plus or minus 5 degrees) or weight (half-pounds or kilograms) to the nearest unit L] (M2.2.1)	364B, 364-365, 352B, 352-353
[5] MEA-3 identifying or using equivalent measures for weight/mass (16 oz. = 1 pound or 1000 grams = 1 kilogram) and length (1000 millimeters = 1 meter) or time (M2.2.2)	354B, 354-355, 356B, 356-357
Measurement Techniques <i>The student demonstrates ability to use measurement techniques using pictorial representations [or manipulatives L] in real-world contexts by</i>	
[5] MEA-4 [measuring temperature or weight using appropriate tools L] (M2.2.1 & M2.2.3)	364B, 364-365
[5] MEA-5 telling time using analog clocks to the nearest minute and using A.M. or P.M. (M2.2.5)	358B, 358-360
[5] MEA-6 determining possible combinations of coins and bills to given amounts (M2.2.6)	Related content: 42B, 42-43, 44B, 44-45
[5] MEA-7 [simulating multiple purchases and calculating the amount of change from given bills up to \$100.00 L] (M2.2.6)	42B, 42-43, 44B, 44-45, 45A

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
[5] MEA-8 measuring length to the nearest $\frac{1}{4}$ inch or centimeter (M2.2.1)	296B, 296-297, 298B, 298-299
Content Standard A: Mathematical facts, concepts, principles, and theories Estimation and Computation: Perform basic arithmetic functions, make reasoned estimates, and select and use appropriate methods or tools	
Estimation <i>The student determines reasonable answers to real-life situations, paper/pencil computations, or calculator results by</i>	
[5] E&C-1 identifying or using [a variety of L] strategies (e.g., rounding to appropriate place value, multiplying by powers of ten, using front-end estimation to estimate the results of addition or subtraction computations from tenths to 100,000, including money, or simple multiplication or division (M3.2.1)	30B, 30-32, 60B, 60-61, 62B, 62-63, 84B, 84-85, 86B, 86-87, 124B, 124-125, 170B, 170-171, 174B, 174-175, 178B, 178-179, 184B, 184-185
Computation <i>The student accurately solves problems (including real-world situations) involving</i>	
[5] E&C-2 [recalling basic multiplication facts, products to 144, and corresponding division facts efficiently L] (M3.2.2)	60-61, 64-65, 84-85, 94-95
[5] E&C-3 adding or subtracting four-digit whole numbers, fractions with like denominators to 12, or decimals involving money (M3.2.3)	38B, 38-40, 46B, 46-48
[5] E&C-4 multiplying two-digit whole numbers by two-digit numbers or dividing three-digit whole numbers by single-digit numbers (M3.2.4)	68B, 68-69, 94B, 94-96

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Content Standard A: Mathematical facts, concepts, principles, and theories Functions and Relationships: Represent, analyze, and use patterns, relations, and functions	
Describing Patterns and Functions <i>The student demonstrates conceptual understanding of functions, patterns, or sequences by</i>	
[5] F&R-1 extending patterns that use addition, subtraction, multiplication, division or symbols, up to 10 terms, represented by models (function machines), tables, sequences, or in problem situations (M4.2.1)	33, 148-149, 203
[5] F&R-2 using rules to express the generalization of a pattern using words, lists, or tables (M4.2.4)	382B, 382-384, 404-405
[5] F&R-3 identifying or applying addition or subtraction patterns to find missing values in a function (M4.1.2)	148-149, 382-384
[5] F&R-4 [using manipulatives, including a calculator, as tools when describing, extending, or representing a number sequence L] (M4.2.1 & M4.2.3)	148-149, 382-384, 404-405; also several units include “Going Digital” activities such as page 77 and 151
Modeling and Solving Equations and Inequalities <i>The student demonstrates algebraic thinking by</i>	
[5] F&R-5 using an open number sentence (addition, subtraction, multiplication, or division) to solve for an unknown represented by a box or circle (e.g., $256 \div = 8$, $\div 8 = 56$, $36 \div 3 =$) (M4.2.5)	259, 376B, 376-377, 378B, 378-379

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Content Standard A: Mathematical facts, concepts, principles, and theories	
Geometry: Construct, transform, and analyze geometric figures.	
Geometric Relationships <i>The student demonstrates an understanding of geometric relationships by</i>	
[5] G-1 using the attributes and properties of angles and the number, length, and orientation of sides to identify or compare triangles (scalene, isosceles, or equilateral) or quadrilaterals (parallelograms, trapezoids, rhombi) (M5.2.1)	204B, 204-205, 206B, 206-207, 208B, 208-209, 210B, 210-211
[5] G-2 using the attributes and properties of solid figures (edges, vertices, number of faces) to [model L], identify, compare, or describe (cubes, cylinders, cones, spheres, pyramids, or rectangular prisms) (e.g., boxes, buildings, packages) (M5.2.2)	322b, 322-324
Similarity, Congruence, Symmetry, and Transformation of Shapes <i>The student demonstrates conceptual understanding of similarity, congruence, symmetry, or transformations of shapes by</i>	
[5] G- 3 illustrating or identifying the results of transformation (slides, turns, or flips of polygons) (e.g., pictures of cultural art, fabric designs, architecture, logos) (M5.2.5)	464B, 464-466, 468B, 468-469, 470B, 470-471
[5] G-4 identifying, creating, or drawing geometric figures that are congruent, similar, or symmetrical (M5.2.3)	472B, 472-473, 474B, 474-476

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
[5] G-5 [modeling designs (e.g., tessellations) that contain a series of slides, flips, and/or turns L] (M5.2.5)	325, 477
Perimeter, Area, Volume, and Surface Area <i>The student solves problems using perimeter or area by</i>	
[5] G-6 estimating or determining area or perimeter of rectangles using a key, ruler, or given measures (M5.2.4)	300B, 300-302, 304B, 304-305
[5] G-7 [estimating or determining the area and circumference of a circle using a grid or manipulatives L] (M5.2.4 & M5.3.4)	310B, 310-312
Position and Direction <i>The student demonstrates understanding of position and direction by</i>	
[5] G-8 [locating points of given coordinates on a grid or identifying coordinates for a given point (e.g., items on a treasure map) L] (M5.2.6)	414B, 414-416
Construction <i>The student demonstrates a conceptual understanding of geometric drawings or constructions by</i>	
[5] G-9 [identifying or drawing perpendicular line segments or midpoints L] (M5.2.7)	200B, 200-201

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
<p>Content Standard A: Mathematical facts, concepts, principles, and theories Statistics and Probability: Formulate questions, gather and interpret data, and make predictions</p>	
<p>Data Display <i>The student demonstrates an ability to classify and organize data by</i></p>	
<p>[5] S&P-1 [designing an investigation and collecting L], organizing, or displaying, using appropriate scale, data in real-world problems (e.g., social studies, friends, or school), using bar graphs, tables, charts, diagrams, or line graphs with whole numbers up to 50 (M6.2.1 & M6.2.2)</p>	<p>430B, 430-431, 431A-431B, 432B, 432-435, 436B, 436-439, 440B, 440-442, 443, 444B, 444-445, 454B, 454-455</p>
<p>Analysis and Central Tendency <i>The student demonstrates an ability to analyze data (comparing, explaining, interpreting, evaluating; or drawing or justifying conclusions) by</i></p>	
<p>[5] S&P-2 using information from a variety of displays (tables, bar graphs, line graphs, or Venn diagrams) (M6.2.2)</p>	<p>430-431, 432-435, 436-439, 440-442, 444-445</p>
<p>[5] S&P-3 using mode, median, or range with up to 10 pieces of data with a value of 10 or less each (M6.2.3)</p>	<p>452B, 452-453</p>

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
<p>Probability <i>The student demonstrates a conceptual understanding of probability and counting techniques by</i></p>	
<p>[5] S&P-4 predicting or explaining the probability of all possible outcomes in an experiment using ratios or fractions to describe the probability (M6.2.4)</p>	486B, 486-487, 488B, 488-490
<p>[5] S&P-5 solving or identifying solutions to problems involving money combinations (e.g., how many ways can you make 25 cents using nickels, dimes, or quarters?) (M6.2.5)</p>	486B, 486-487
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections Problem Solving: Understand and be able to select and use a variety of problem-solving strategies</p>	
<p><i>The student demonstrates an ability to problem solve by</i></p>	
<p>[5] PS-1 selecting and applying an appropriate strategy (e.g., tables, charts, lists, or graphs; guess and check; extended patterns; make a model) to solve a variety of problems and verify the results (M7.2.2)</p>	14B, 14-16, 34A-37B, 74A-77B, 110A-113B, 162A-163B, 188B, 188-190, 270B, 270-271, 288B, 288-289, 341B, 314-315, 340B, 340-341, 366B, 366-367, 386A-389B, 404B, 404-405, 422B, 422-423, 454A-455B, 478A-478B, 494A-495B
<p>[5] PS-2 explaining and verifying results of an original problem and applying what was learned to new situations (M7.2.3)</p>	113, 126B, 126-127, 212A-213B

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections</p> <p>Communication: Form and use appropriate methods to define and explain mathematical relationships</p>	
<p><i>The student communicates his or her mathematical thinking by</i></p>	
<p>[5] PS-3 representing problems using mathematical language including concrete, pictorial, and/or symbolic representation; or organizing and communicating mathematical problem-solving strategies and solutions using mathematical language (M8.2.1, M8.2.2, & M8.2.3)</p>	<p>34B, 34-36, 74B, 74-76, 110B, 110-112, 138B, 138-139, 246B, 246-247, 288B, 288-289, 386B, 386-387</p>
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections</p> <p>Reasoning: Use logic and reason to solve mathematical problems</p>	
<p><i>The student demonstrates an ability to use logic and reason by</i></p>	
<p>[5] PS-4 drawing logical conclusions about mathematical situations (given a rule or generalization, determine whether the example fits); or justifying answers and mathematical strategies as reasonable (M9.2.1, M9.2.2, & M9.2.3)</p>	<p>46-48, 88B, 88-89, 101, 162B, 162-163, 212B, 212-213</p>
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections</p> <p>Connections: Apply mathematical concepts and processes to situations within and outside of school.</p>	
<p><i>The student understands and applies mathematical skills and processes across the content strands by</i></p>	
<p>[5] PS-5 using real-world contexts such as social studies, friends, and school (M10.2.1 & M10.2.2)</p>	<p>Most Mixed Problem Solving lessons make real world connections: 9, 27, 34-35, 41, 161, 237, 361</p>

**Scott Foresman – Addison Wesley enVisionMATH
to the
Alaska Math Performance Standards
(Grade Level Expectations)
Grade Six**

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Content Standard A: Mathematical facts, concepts, principles, and theories Numeration: Understand and use numeration	
Understanding Numbers <i>The student demonstrates conceptual understanding</i>	
• of fractions (proper or mixed numbers), decimals, percents (whole number), or integers by	
[6] N-1 reading, writing, ordering, or [counting L] (M1.2.1)	8B, 8-9, 22B, 22-23, 222B, 222-223, 224B, 224-225, 226B, 226-227, 344B, 344-346
[6] N-2 [identifying place value positions from thousandths to millions L] (M1.2.2)	4B, 4-6, 14B, 14-16
[6] N-3 converting between whole numbers written in expanded notation and standard form (M1.2.4)	4B, 4-6, 7B
• of fractions, mixed numbers, or percents by [modeling L], identifying, describing, or illustrating	
[6] N-4 equal parts of a whole, a region, or a set (M1.2.4)	128B, 128-130, 348B, 348-349
[6] N-5 equivalent fractions or mixed numbers (M1.2.4 & M3.2.5)	132B, 132-133, 134B, 134-135, 148B, 148-149

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Understanding Meaning of Operations <i>The student demonstrates conceptual understanding of mathematical operations by</i>	
[6] N-6 [using models, explanations, number lines, or real-life situations L] describing or illustrating the relationships among the four basic operations (M1.2.3)	230B, 234B, 238B, 240B
[6] N-7 [using models, explanations, number lines, or real-life situations L] describing or illustrating the process of adding and subtracting fractions with different denominators (M1.2.5)	166B, 166-168
Number Theory <i>The student demonstrates conceptual understanding of number theory by</i>	
[6] N-8 describing or illustrating commutative, [associative, inverse L] or identity properties of addition or multiplication using models or explanations (M1.2.7)	34B, 34-35, 35B
[6] N-9 identifying or describing factors and multiples common to a pair or set of numbers (e.g., Least Common Multiple, L.C.M., or Greatest Common Factor, G.C.F.) (M1.2.6)	126B, 126-127, 127B, 164B, 164-165
[6] N-10 [modeling (base 10 blocks) distributive property L] (M1.3.6)	40B, 40-41, 41B
Content Standard A: Mathematical facts, concepts, principles, and theories Measurement: Select and use systems, units, and tools of measurement	
Measurable Attributes <i>The student demonstrates understanding of measurable attributes by</i>	
[6] MEA-1 [estimating length to the nearest eighth-inch or millimeter L] (M2.2.1)	408B, 408-410, 411B

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
[6] MEA-2 identifying equivalent measures within systems	400B, 400-402, 403B, 404B, 404-406, 407B
<u>English</u>	
• length (inches, feet, yards, miles)	400B, 400-402, 403B
• weight (ounces, pounds, [tons L])	400B, 400-402, 403B
• volume (fluid ounces, cups, pints, quarts, gallons)	400B, 400-402, 403B
<u>Metric</u>	404B, 404-406, 407B
• length (millimeters, centimeters, meters, kilometers)	404B, 404-406, 407B
• volume (milliliters, liters) (M2.2.2)	404B, 404-406, 407B
Measurement Techniques The student demonstrates ability to use measurement techniques using pictorial representations [or manipulatives L] in real-world contexts by	
[6] MEA-3 using a scaled ruler to an eighth of an inch or millimeter on a map or drawing (M2.2.1 & M2.2.3)	408B, 408-410, 411, 411B
[6] MEA-4 calculating elapsed time (minutes, hours) (M2.2.5)	414B, 414-416, 417B
[6] MEA-5 solving real-world problems involving elapsed time between U.S. time zones (including Alaska Standard time) (M2.2.5)	414A-414B, 414-416
[6] MEA-6 converting and using equivalent measurements within the same system (M2.2.2)	400B, 400-402, 404B, 404-406
[6] MEA-7 measuring length to the nearest 1/8 of an inch or nearest millimeter (M2.2.1)	408B, 408-410

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
<p>Content Standard A: Mathematical facts, concepts, principles, and theories</p> <p>Estimation and Computation: Perform basic arithmetic functions, make reasoned estimates, and select and use appropriate methods or tools</p>	
<p>Estimation <i>The student determines reasonable answers to real-life situations, paper/pencil computations, or calculator results by</i></p>	
<p>[6] E&C-1 identifying or using [a variety of L] strategies (e.g., truncating, rounding to compatible numbers) to estimate the results of addition, subtraction or multiplication from thousandths to millions or simple division (M3.2.1)</p>	62B, 62-63, 66B, 66-68
<p>Computation <i>The student accurately solves problems (including real-world situations) involving</i></p>	
<p>[6] E&C-2 [recalling basic addition, subtraction, multiplication, and division facts efficiently L] (M3.2.2)</p>	64B, 64-65, 70B, 70-72
<p>[6] E&C-3 adding or subtracting whole numbers, fractions with unlike denominators to 12, or decimals to the hundredths place (M3.2.3)</p>	64B, 64-65, 166B, 166-168, 169B, 172B, 172-173, 173B, 174B, 174-176, 177B
<p>[6] E&C-4 multiplying whole numbers by two- or three-digit numbers, dividing three-digit numbers by one or two-digit numbers, or multiplying or dividing decimals that represent money by whole numbers, or multiplying or dividing proper fractions (M3.2.4)</p>	70B, 70-72, 74B, 74-75, 186B, 186-187, 190B, 190-191, 202B, 202-203, 204B, 204-205, 206B, 206-207
<p>[6] E & C-5 [developing or interpreting scale models (scale factors such as 1 in. = 1 ft.) L] (M3.2.6)</p>	334B, 337-337

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Content Standard A: Mathematical facts, concepts, principles, and theories Functions and Relationships: Represent, analyze, and use patterns, relations, and functions	
Describing Patterns and Functions <i>The student demonstrates conceptual understanding of functions, patterns, or sequences by</i>	
[6] F&R-1 extending patterns (found in the number system, formed by multiples, factors, perfect squares up to 100, powers of ten), up to 10 terms, represented in tables, sequences, or in problem situations (M4.2.1)	10B, 10-11, 18-19
[6] F&R-2 using rules to express the generalization of a pattern using words, lists, or tables, with or without variables (M4.2.4)	48B, 48-49, 131, 153, 376B, 376-377
[6] F&R-3 identifying or applying multiplication or division patterns to find missing values in a function (M4.2.2)	376B, 376-377, 527
[6] F&R-4 [using manipulatives, including a calculator, as tools when describing, extending, or representing a number sequence L] (M4.2.1 & M 4.2.3)	214B, 214-215, 372B, 372-373
Modeling and Solving Equations and Inequalities <i>The student demonstrates algebraic thinking by</i>	
[6] F&R-5 solving for an unknown represented by a letter, (addition, subtraction, multiplication, or division) (e.g., $3 \cdot n = 15$, $n - 5 = 12$) (M4.2.5)	96B, 96-97, 98B, 98-100, 102B, 102-104, 106B, 106-108, 110B, 110-112, 242B, 242-244

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Content Standard A: Mathematical facts, concepts, principles, and theories	
Geometry: Construct, transform, and analyze geometric figures.	
Geometric Relationships <i>The student demonstrates an understanding of geometric relationships by</i>	
[6] G-1 using the attributes and properties (sides and angles) of regular polygons to identify, classify, or compare regular or irregular polygons (M5.2.1)	274B, 274-276, 278B, 278-281
[6] G-2 identifying, comparing or describing attributes and properties of circles (radius, and diameter) (M5.2.2)	282B, 282-283
[6] G-3 using the attributes and properties of prisms (vertices, length and alignment of edges, shape and number of bases, shape of faces) to [model L], identify, compare, or describe triangular or rectangular prisms (M5.2.2)	454B, 454-457
[6] G-4 identifying a 3-dimensional shape from the 2-dimensional drawing of the shape (M5.2.2)	454B, 454-457
Similarity, Congruence, Symmetry, and Transformation of Shapes <i>The student demonstrates conceptual understanding of similarity, congruence, symmetry, or transformations of shapes by</i>	
[6] G-5 identifying, creating, or drawing geometric figures that are congruent, similar, or symmetrical (M5.2.3)	269, 288B, 288-289, 330B, 330-332

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
[6] G-6 [drawing or describing the results of transformations of polygons such as slides, turns, or flips L] (M5.2.5)	284B, 284-287
Perimeter, Area, Volume, and Surface Area <i>The student solves problems using perimeter or area by</i>	
[6] G-7 estimating or determining area or perimeter of polygons (parallelograms, trapezoids, triangles) using a key, ruler, or given measures (M5.2.4)	426B, 426-428, 429B, 430B, 430-433, 433B, 434B, 434-436
[6] G-8 [estimating the area and circumference of a circle using a grid or manipulatives and comparing the relationship of the diameter to the circumference (π) L] (M5.2.4 & M5.3.4)	438B, 438-440, 441B, 442B, 442-433, 433B
[6] G-9 [estimating or determining the volume of a right rectangular prism using manipulatives and formulas (e.g., cereal box, sand box, planter) L] (M5.3.4)	462B, 462-463, 463B
Position and Direction <i>The student demonstrates understanding of position and direction by</i>	
[6] G-10 graphing a vertical or horizontal line segment (given whole number coordinates for its end points) on a coordinate grid or identifying its length or midpoint (e.g., using a map to trace a route and calculate distance) (M5.2.6 & M5.2.7)	246B, 246-249, 249B, 262B, 262-264, 380B, 380-381

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
Construction <i>The student demonstrates a conceptual understanding of geometric drawings or constructions by</i>	
[6] G-11 [drawing or measuring quadrilaterals with given dimensions or angles L] (M5.3.7)	278B, 278-281, 281B
Content Standard A: Mathematical facts, concepts, principles, and theories Statistics and Probability: Formulate questions, gather and interpret data, and make predictions	
Data Display <i>The student demonstrates an ability to classify and organize data by</i>	
[6] S&P-1 [designing an investigation and collecting L], organizing, or displaying, using appropriate scale for data displays (tables, bar graphs, line graphs, or circle graphs), data in real-world problems (e.g., social studies, friends, or school), with whole numbers up to 100 (M6.2.1 & M6.2.2)	347, 476B, 476-479, 488B, 488-489, 494B, 494-496, 498B, 498-499
Analysis and Central Tendency <i>The student demonstrates an ability to analyze data (comparing, explaining, interpreting, evaluating; or drawing or justifying conclusions) by</i>	
[6] S&P-2 using information from a variety of displays (tables, bar graphs, line graphs, circle graphs, or Venn diagrams) (M6.2.2)	123, 347, 476-479, 480B, 481-482, 484B, 484-487, 488-489, 494-496, 498-499
[6] S&P-3 using mean, median, mode, or range (M6.2.3)	490B, 490-492, 493B, 500B, 500-501, 501B

Alaska Math Performance Standards	Scott Foresman – Addison Wesley enVisionMATH
<p>Probability <i>The student demonstrates a conceptual understanding of probability and counting techniques by</i></p>	
<p>[6] S&P-4 [analyzing whether a game is mathematically fair or unfair by explaining the probability of all possible outcomes L] (M6.2.4)</p>	<p>528B, 528-529, 529B, 530B, 530-532, 533B</p>
<p>[6] S&P-5 solving or identifying solutions to problems involving possible combinations (e.g., if ice cream sundaes come in 3 flavors with 2 possible toppings, how many different sundaes can be made using only one flavor of ice cream with one topping?) (M6.2.5)</p>	<p>520B, 520-522, 524B, 524-526</p>
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections <u>Problem Solving:</u> Understand and be able to select and use a variety of problem-solving strategies</p>	
<p><i>The student demonstrates an ability to problem solve by</i></p>	
<p>[6] PS-1 selecting, modifying, and applying appropriate problem solving strategies (e.g., graphing, Venn diagrams, tables, lists, working backwards, guess and check, or extend a pattern) and verifying results (M7.3.2)</p>	<p>24B, 24-25, 50B, 50-52, 178B, 178-179, 194B, 194-195, 250B, 250-252, 290B, 290-291, 328B, 328-329, 390B, 390-391, 418B, 418-419, 444B, 444-446, 466B, 466-468, 510B, 510-511, 536B, 536-537</p>
<p>[6] PS-2 evaluating and interpreting solutions to problems (M7.3.3)</p>	<p>84B, 84-85, 510B, 510-511</p>

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<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections</p> <p>Communication: Form and use appropriate methods to define and explain mathematical relationships</p>	
<p><i>The student communicates his or her mathematical thinking by</i></p>	
<p>[6] PS-3 representing problems using mathematical language including concrete, pictorial, and/or symbolic representation; or using appropriate vocabulary, symbols, and technology to explain mathematical solutions (M8.2.1, M8.2.2, & M8.2.3)</p>	<p>102B, 102-104, 110B, 110-112, 154B, 154-155</p>
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections</p> <p>Reasoning: Use logic and reason to solve mathematical problems</p>	
<p><i>The student demonstrates an ability to use logic and reason by</i></p>	
<p>[6] PS-4 using informal deductive reasoning in concrete contexts; or justifying answers and mathematical strategies using examples (M9.3.1 & M9.3.3)</p>	<p>136B, 136-137, 137A-137B, 314B, 314-315, 362B, 362-363, 510B, 510-511</p>
<p>Content Standards B, C, D, and E: Process skills and abilities Applying conceptual knowledge and skills as designated in all strands of Content Standard A by problem solving, communicating, reasoning, and making connections</p> <p>Connections: Apply mathematical concepts and processes to situations within and outside of school.</p>	
<p><i>The student understands and applies mathematical skills and processes across the content strands by</i></p>	
<p>[6] PS-5 using real-world contexts such as social studies, friends, school and community (M10.2.1, M10.2.2, & M10.3.2)</p>	<p>Most Mixed Problem Solving lessons make real world connections: 7, 17, 45, 69, 177, 237, 249, 277, 337, 347, 403, 407, 441</p>