

A Correlation of

Scott Foresman • Addison Wesley

en**Vision**MATH™

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to the

**INDIANA
Academic Standards
Mathematics**

Grade Four



G/M-267_G4

Introduction

This correlation shows the alignment between **Scott Foresman – Addison Wesley enVisionMATH**, copyright 2011, to Indiana’s Academic Standards – Mathematics, Final Draft March 12, 2009. 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.

**Scott Foresman-Addison Wesley enVisionMATH
to the
Indiana Academic Standards – Mathematics**

Grade 4

Indiana Mathematics Standards	Scott Foresman – Addison Wesley enVisionMATH
GRADE 4	
Standard 1	
Number Sense and Computation	
4.1.1 Count, read, write, compare and plot whole numbers using words, models, number lines and expanded form.	Topic 1: 2A-2F, 3, 4A-6, 7A-7B, 8A-9B, 10A-13B Topic 5: 113
4.1.2 Find equivalent fractions and then use them to compare and order whole numbers and fractions using the symbols for less than (<), equals (=), and greater than (>).	Topic 10: 214B, 224A-226, 227A-227B, 228A-229B, 230A-233B, 234A-235B, 236A-237B
4.1.3 Solve problems involving decimals to hundredths.	Topic 13: 288B, 288D, 289, 296A-298, 299A-299B, 300A-302, 303A-303B, 304A-305B, 306A-307B
<ul style="list-style-type: none"> • Interpret and model decimals as parts of a whole, parts of a group, and points and distances on a number line. 	Topic 12: 266B-266F, 267, 268B-269B, 274A-275B, 276A-278, 279A-279B, 280A-281B
<ul style="list-style-type: none"> • Use benchmarks (well-known numbers used in meaningful points for comparison) to compare decimals between 0 and 1.0. 	Topic 12: 270A-272, 273A-273B, 276A-278, 279B
<ul style="list-style-type: none"> • Write decimals as fractions. 	Topic 12: 266B, 274A-275B, 276A-278, 279B
4.1.4 Use words, models, standard form and expanded form to represent place value of decimal numbers to hundredths.	Topic 1: 16 Topic 12: 266B-266F, 267, 268B-269B, 274A-275B, 276A-278, 279A-279B, 280A-281B
4.1.5 Demonstrate fluency with multiplication facts for numbers up to at least 10 and the related division facts. Identify factors of whole numbers and multiplies of whole numbers to 10.	Topic 3: 52A-52D, 53, 58A-59B, 62A-63B, 64A-65B, 66A-67B Topic 4: 80A-81B, 82A-83B, 84A-85B
4.1.6 Solve problems using multiplication of two-digit by single-digit and two-digit numbers fluently using a standard algorithmic approach.	Topic 5: 94A-94D, 96A-97B, 98A-99B, 106A-108, 109A-109B, 110A-113B, 114A-115B Topic 6: 140A-140D, 141, 142A-143B, 146A-149B, 150A-151B, 1512A-153B, 154A-155B
4.1.7 Model addition and subtraction of simple fractions.	Topic 11: 248A-248F, 250A-253B, 254A-255B, 256A-257B

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4.1.8 Construct and analyze line plots. Given a set of data or a graph, describe the distribution of the data using median, range or mode.	Topic 17: 400A-400B, 406A-407B, 412A-413B, 414A-415B
4.1.9 List all the possible outcomes of a given situation or event. Represent the probability of a given outcome using a picture or other graphic.	Topic 20: 466B, 466D, 4468A-469B, 470A-471B, 472A-474, 475A-475B
Standard 2	
Algebra and Functions	
4.2.1 Write and solve equations with (=) to show equivalence and use with variables to express mathematical relationships involving multiplication and division. Plot the points for the corresponding values in the first quadrant.	Topic 2: 44A-46, 47A-47B Topic 3: 68A-69B Topic 4: 79, 86-88, 89A-89B Topic 5: 116-118, 119A-119B Topic 11: 258A-260, 261A-261B Topic 13: 303 Topic 18: 430A-430F, 432A-433B, 4334A-435B, 436A-437B
4.2.2 Create, extend, and give a rule for number patterns using multiplication and division and non-numeric growing or repeating patterns.	Topic 6: 126A-126F, 127, 128A-129B, 130A-131B, 132A-133B
4.2.3 Show that the order in which two numbers are multiplied [commutative property] and how numbers are grouped in multiplication [associative property] will not change the product. Use these properties together to show that numbers can be multiplied in any order.	Topic 3: 60A-61B, 62B-63B, 64B-65B, 66B-67B
4.2.4 Use the distributive property in expressions involving multiplication.	Topic 3: 62A-63B, 64B-65B, 66
Standard 3	
Geometry and Measurement	
4.3.1 Identify, describe and draw pairs of parallel lines, perpendicular lines, and nonperpendicular intersecting lines using appropriate mathematical tools and technology	Topic 9: 194A-194B, 195, 196A-197B
4.3.2 Identify, describe and draw right angles, acute angles, obtuse angles, straight angles and rays using appropriate tools and technology.	Topic 9: 194B, 198A-199B, 200A-201B
4.3.3 Identify shapes that have reflectional and rotational symmetry.	Topic 19: 446B, 456A-457B, 458A-459B
4.3.4 Measure and draw line segments to the nearest eighth-inch and millimeter.	Topic 16: 365 (extension note) 374-375, 375B, 399E
4.3.5 Develop and use formulas for finding the perimeter and area of rectangles, including squares, using appropriate strategies (e.g. decomposing shapes), tools and units of measure.	Topic 14: 314A-314B, 314D-314F, 318A-319B, 320A-322, 323A-323B, 328A-330, 331A-331B

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Process Standards	
Problem Solving	
<ul style="list-style-type: none"> • Build new mathematical knowledge through problem solving. 	<p>Problem solving is taught throughout the curriculum, especially in the Interactive Learning, Guided Practice, Independent Practice and Problem Solving features. The following are some representative examples:</p> <p>Topic 1: 17 Topic 4: 83 Topic 5: 106B Topic 6: 133 Topic 8: 176 Topic 9: 207 Topic 11: 257 Topic 15: 353 Topic 16: 390-391 Topic 18: 440B</p>
<ul style="list-style-type: none"> • Solve problems that arise in mathematics and in other contexts. 	<p>This objective is taught throughout the curriculum, especially in the <i>Interactive Learning, Problem Solving</i> and <i>Guided Practice</i> features. The following are some representative examples:</p> <p>Topic 1: 20B Topic 5: 101 Topic 7: 153 Topic 8: 180-181 Topic 9: 201 Topic 10: 236B Topic 11: 254-255 Topic 13: 306B Topic 16: 384-385 Topic 20: 472-473</p>
<ul style="list-style-type: none"> • Apply and adapt a variety of appropriate strategies to solve problems. 	<p>Topic 1: 2G-2J, 20A-21B Topic 2: 34A-35B, 44A-46, 47A-47B Topic 3: 68A-69B Topic 4: 86A-88, 89A-89B Topic 5: 102A-104, 105A-105B, 116A-118, 119A-119B Topic 6: 134A-135B Topic 7: 156A-157B Topic 8: 186A-187B Topic 9: 208A-209B Topic 10: 238A-240, 241A-241B Topic 11: 258A-260, 261A-261B Topic 12: 282A-283B</p>

Indiana Mathematics Standards	Scott Foresman – Addison Wesley enVisionMATH
continued	Topic 13: 308A-309B Topic 14: 336A-338, 339A-339B Topic 15: 356A-357B Topic 16: 392A-393B Topic 17: 420A-422, 423A-423B Topic 18: 440A-441B Topic 19: 460A-461B Topic 20: 476A-477B
<ul style="list-style-type: none"> • Monitor and reflect on the process of mathematical problem solving. 	Topic 10: 238A-240, 241A-241B
Reasoning and Proof	
<ul style="list-style-type: none"> • Recognize reasoning and proof as fundamental aspects of mathematics. 	Topic 9: 208A-209B
<ul style="list-style-type: none"> • Make and investigate mathematical conjectures. 	Topic 9: 208A-209B
<ul style="list-style-type: none"> • Develop and evaluate mathematical arguments and proofs. 	Topic 9: 208A-209B
<ul style="list-style-type: none"> • Select and use various types of reasoning and methods of proof. 	Topic 9: 208A-209B
Communication	
<ul style="list-style-type: none"> • Organize and consolidate their mathematical thinking through communication. 	Topic 6: 134A-135B Topic 17: 420A-422, 423A-423B
<ul style="list-style-type: none"> • Communicate their mathematical thinking coherently and clearly to peers, teachers, and others. 	Topic 6: 134A-135B Topic 17: 420A-422, 423A-423B
<ul style="list-style-type: none"> • Analyze and evaluate the mathematical thinking and strategies of others. 	Topic 10: 238A-240, 241A-241B
<ul style="list-style-type: none"> • Use the language of mathematics to express mathematical ideas precisely. 	<p>In the beginning of each topic, the curriculum provides <i>Vocabulary Cards, Connections to Everyday Vocabulary, Vocabulary Activities, Written and Oral Language in Math and New Vocabulary</i>. In lesson notes in Teacher’s Edition, <i>Vocabulary</i> feature appears in student text and new vocabulary is highlighted.</p> <p>www.pearsonsuccessnet.com supplies an <i>Animated Glossary</i>. The following are representative examples:</p> <p>Topic 1: 2E-2F, 2-3, 4A-4, 16A-16 Topic 3: 52E-52F, 52-53, 54A-55, 58, 69 Topic 6: 126E-126F, 126-127, 128A-128 Topic 8: 162E-162F, 162-163, 168A-168 Topic 10: 214E-214F, 214-215, 216, 233 Topic 11: 248E-248F, 248-249, 261 Topic 13: 288E-288F, 288-289, 303 Topic 16: 362E-362F, 362-363, 390A-</p>

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continued	390 Topic 17: 400E-400F, 400-401, 406A-406 Topic 19: 446E-446F, 446-447, 448A-448
Connections	
<ul style="list-style-type: none"> Recognize and use connections among mathematical ideas. 	Topic 4: 80A-81B, 84A-85B Topic 10: 219 Topic 12: 279 Topic 14: 323 Topic 18: 373
<ul style="list-style-type: none"> Understand how mathematical ideas interconnect and build on one another to produce a coherent whole. 	Topic 4: 80A-81B, 84A-85B Topic 10: 219 Topic 12: 279 Topic 14: 323 Topic 18: 373
<ul style="list-style-type: none"> Recognize and apply mathematics in contexts outside of mathematics. 	Topic 1: 16B-19B Topic 2: 28, 33, 39, 41, 43 Topic 3: 57 Topic 10: 233, 238-240 Topic 12: 268-269, 270-272 Topic 13: 293
Representation	
<ul style="list-style-type: none"> Create and use representations to organize, record, and communicate mathematical ideas. 	Each lesson contains a Visual Learning Bridge and related <i>Visual Learning Animation</i> on CD or www.pearsonsuccessnet.com. The following are representative examples: Topic 1: 4-5, 8-9, 10-11, 14-15, 16-17 Topic 4: 76-77, 80-81, 82-83, 84-85 Topic 5: 96-97, 98-99, 100-101, 102-103 Topic 6: 130-131, 132-133, 134A-135B Topic 8: 168-169, 170-171, 174-175 Topic 10: 216-217, 220-221, 224-225 Topic 11: 250-251, 254-255, 256-257 Topic 13: 294-295, 296-297, 300-301 Topic 17: 402-403, 404-405, 406-407 Topic 18: 432-433, 434-435, 436-437
<ul style="list-style-type: none"> Select, apply, and translate among mathematical representations to solve problems. 	Multiple representations are presented in <i>Interactive learning, Visual Learning, Guided Practice</i> and <i>Independent Practice</i> exercises. Additional representations may be found at www.pearsonsuccessnet.com. The following are some representative examples: Topic 1: 4B-6, 8-9, 10B, 16-17, 18-19

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continued	Topic 5: 98-99, 106B-107, 109A-109B Topic 6: 130-131, 132-133, 134-135 Topic 7: 146B-149B, 150-151, 156-157 Topic 10: 220-221, 222-223, 224B, 224-225 Topic 11: 250-251, 254-255, 258-259 Topic 12: 268B, 268-269, 270-271, 274B Topic 14: 316-317, 318-319, 320-321 Topic 17: 406-407, 412-413, 420-422 Topic 20: 468-469, 470-471, 472-473
<ul style="list-style-type: none"> • Use representations to model and interpret physical, social, and mathematical phenomena. 	Each lesson uses Modeling or presents the use of Manipulatives. Differentiated Instruction and Leveled Homework provides additional models or representations. The following are some representative examples: Topic 1: 4B, 7B, 9B, 16B, 16-17, 17B Topic 3: 60B, 60-61, 61B, 62B, 63B, 64-65 Topic 5: 99B, 101B, 106B, 106-107, 116B Topic 7: 146B, 146-147, 149B, 150-151 Topic 8: 168-169, 170B, 173B, 174B, 180B Topic 12: 266B, 268-269, 270-271, 274B Topic 14: 319B, 320-321, 332-333, 333B Topic 17: 406B, 412-413, 416-417, 417B Topic 18: 432B, 432-433, 438B-439B Topic 20: 468B, 468-469, 470B, 470-471
Estimation and Mental Computation	
<ul style="list-style-type: none"> • Know and apply appropriate methods for estimating the results of computations. 	Topic 2: 32A-33B Topic 5: 100A-101B Topic 7: 144A-145B Topic 8: 166A-167B Topic 13: 294A-295B, 300A-302, 303A-303B
<ul style="list-style-type: none"> • Round numbers to a specified place value. 	Topic 1: 14A-15B, Topic 5: 100A-101B Topic 13: 290A-293B
<ul style="list-style-type: none"> • Use estimation to decide whether answers are reasonable. 	Topic 5: 102A-104, 105A-105B Topic 5: 134A-135B
<ul style="list-style-type: none"> • Decide when estimation is an appropriate strategy for solving a problem. 	Topic 5: 102A-104, 105A-105B Topic 5: 134A-135B
<ul style="list-style-type: none"> • Determine appropriate accuracy and precision of measurement in problem situations. 	Topic 16: 364A-365A, 366B, 368B-369B, 374B-375B, 376B-377
<ul style="list-style-type: none"> • Use properties of numbers and operations to perform mental computation. 	Topic 2: 32A-33B Topic 5: 98A-99B, 105

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continued	Topic 7: 142A-143B Topic 8: 164A-165B Topic 13: 294A-295B Topic 14: 323
<ul style="list-style-type: none"> Recognize when the numbers involved in a computation allow for a mental computation strategy. 	Topic 2: 32A-33B Topic 5: 98A-99B, 105 Topic 7: 142A-143B Topic 8: 164A-165B Topic 13: 294A-295B Topic 14: 323
Technology	
<ul style="list-style-type: none"> Technology should be used as a tool in mathematics education to support and extend the mathematics curriculum. 	<p>Technology is fully integrated into the curriculum.</p> <p>www.pearsonsuccessnet.com features <i>eTools</i>, <i>Visual Learning Animation</i> and an <i>Animated Glossary</i> to support and extend the curriculum as does the <i>Going Digital</i> feature. The following are representative examples;</p> <p>Topic 2: 28B, 28, 31B, 32-33, 33B, 47 Topic 4: 76B, 76-77, 79B, 80, 81B, 84B, 89 Topic 5: 97B, 98B, 98-99, 101B, 105, 119 Topic 10: 216B, 219B, 219, 221B, 223B Topic 14: 316, 317B, 319B, 323B, 325B Topic 16: 367B, 368, 369B, 373B, 389 Topic 17: 403B, 404, 405B, 406, 407B, 423 Topic 18: 432B, 433B, 434B, 434-435 Topic 19: 448B, 449B, 450B, 450, 451B Topic 20: 469B, 470B, 470, 471B, 475B</p>
<ul style="list-style-type: none"> Technology can contribute to concept development, simulation, representation, communication, and problem solving. 	<p>There is <i>Visual Learning Animation</i> In every lesson related to animated learning bridges.</p> <p>www.pearsonsuccessnet.com <i>eTools</i> digital activities are found throughout the program. The following are some representative examples:</p> <p>Topic 1: 4-5, 8-9, 10-11, 14-15, 16-17 Topic 3: 54-55, 58-59, 60-61, 62-63 Topic 5: 96-97, 98-99, 100-101, 102-103 Topic 7: 142-143, 144-145, 146-147, Topic 9: 198-199, 200-201, 202-203 Topic 10: 216-217, 220-221, 222-223 Topic 12: 268-269, 270-271, 274-275 Topic 14: 3216-317, 318-319, 320-321</p>

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<p>continued</p>	<p>Topic 17: 402-403, 404-405, 406-407 Topic 19: 450-451, 452-453, 454-455</p>
<p>• The challenge is to ensure that technology supports-but is not a substitute for- the development of skills with basic operations, quantitative reasoning, and problem solving skills.</p>	<p>The technology that is integrated into the curriculum supports but is not a substitute for development of basic skills. www.pearsonsuccessnet.com features <i>eTools, Visual Learning Animation, Going Digital</i> and <i>Animated Glossary</i> to support the development of skills. The following are representative examples: Topic 1: 8-9, 10-11, 14-15, 16-17, 18-19 Topic 4: 76B, 76-77, 79B, 80, 81B, 84B, 89 Topic 5: 97B, 98B, 98-99, 101B, 105, 119 Topic 6: 128B, 128-129, 129B, 131B Topic 8: 168B, 180B, 181B, 182-183 Topic 9: 198-199, 200-201, 202-203 Topic 11: 250-251, 253B, 254B, 256-257 Topic 15: 350B, 351B, 355B, 356-357 Topic 16: 367B, 368, 369B, 373B, 389 Topic 18: 432B, 433B, 434B, 434-435</p>
<p>o Elementary students should learn how to perform thoroughly the basic arithmetic operations independent of the use of a calculator.</p>	<p>Topic 2: 28A-30, 31A-31B, 36A-38, 39A-39B, 40A-41B, 42A-43B Topic 5: 94A-94D, 96A-97B, 98A-99B, 106A-108, 109A-109B, 110A-113B, 114A-115B Topic 6: 140A-140D, 141, 142A-143B, 146A-149B, 150A-151B, 1512A-153B, 154A-155B</p>
<p>o The focus must be on learning mathematics, using technology as a tool rather than as an end in itself.</p>	<p>Technology features <i>eTools, Visual Learning Animation</i> and <i>Animated Glossary</i> to support the curriculum as skills are presented to the student. (www.pearsonsuccessnet.com) The following are representative examples: Topic 1: 4-5, 8-9, 10-11, 14-15, 16-17 Topic 4: 76B, 76-77, 79B, 80, 81B, 84B, 89 Topic 5: 96-97, 98-99, 100-101, 102-103 Topic 6: 128B, 128-129, 129B, 131B Topic 8: 168B, 180B, 181B, 182-183 Topic 9: 198-199, 200-201, 202-203, 203B</p>

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