

A Correlation of

Scott Foresman • Addison Wesley

en**Vision**MATH™

to the

**Missouri Mathematics Grade
and Course Level Expectations**

Grades K-6



G/M-265

Correlation Introduction

This correlation is designed to show the close alignment between Scott Foresman-Addison Wesley enVisionMATH and the Missouri Mathematics Grade and Course Level Expectations 2.0. Correlation page references are to the Teacher's Edition and associated 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.

Table of Contents

Kindergarten	1
Grade One	7
Grade Two	14
Grade Three	22
Grade Four	30
Grade Five	39
Grade Six	48

**Scott Foresman – Addison Wesley enVisionMATH
to the Missouri Mathematics Grade
and Course Level Expectations
Kindergarten**

NUMBER AND OPERATIONS

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Understand numbers, ways of representing numbers, relationships among numbers and number systems	
A. Read, write and compare numbers	
rote count to 100 and recognize numbers up to 31	This objective is taught, practiced, reviewed, and assessed throughout the <i>enVision Math</i> curriculum. Sample references are cited here. SE/TE: 51A-52C, 53A-54C, 55A-56C, 57A-58C, 59A-60C, 61A-62C, 75A-76C, 77A-78C, 79A-80C, 81A-82C, 83A-84C, 85A-86C, 87A-88C, 89A-90C, 91A-92C, 93A-94C, 101A-102C, 103A-104C, 105A-106C, 107A-108C, 177A-178C, 179A-180C, 181A-182C, 183A-184C, 185A-186C, 187A-188C, 195A-196C, 197A-198C, 199A-200C, 201A-202C, 203A-204C, 205A-206C, 213A-214C, 215A-216C, 217A-218C, 219A-220C, 221A-222C, 223A-224C, 225A-226C, 227A-228C, 229A-230C
B. Represent and use rational numbers	
<i>recognize $\frac{1}{2}$ of a shape</i>	SE/TE: 135C, 135E-F, 135, 137-138C, 139-140C, 141-142C, 143A, 149, 150-150C
C. Compose and decompose numbers	

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
<i>use concrete objects to compose and decompose values up to 10</i>	SE/TE: 84C (Enrichment Master), 177A-178C, 179A-180C, 181A-182C, 183A-184C, 185A-186C, 187A-188C, 189A-190C, 195A-196C, 197A-198C, 199A-200C, 201A-202C, 203A-204C, 205A-206C, 207A-208C, 211B, 211I-J, 211, 214B-214C, 216, 216C, 218, 220, 220C, 225A, 225, 226B, 233B, 234, 234B
3. Compute fluently and make reasonable estimates	
B. Develop and demonstrate fluency	
<i>connect number words (orally) and quantities they represent</i>	This objective is taught, practiced, reviewed, and assessed throughout the <i>enVision Math</i> curriculum. Sample references are cited here. SE/TE: 51A-52C, 53A-54C, 55A-56C, 57A-58C, 59A-60C, 61A-62C, 75A-76C, 77A-78C, 79A-80C, 81A-82C, 83A-84C, 85A-86C, 87A-88C, 89A-90C, 91A-92C, 93A-94C, 101A-102C, 103A-104C, 105A-106C, 107A-108C, 177A-178C, 179A-180C, 181A-182C, 183A-184C, 185A-186C, 187A-188C, 195A-196C, 197A-198C, 199A-200C, 201A-202C, 203A-204C, 205A-206C, 213A-214C, 215A-216C, 217A-218C, 219A-220C, 221A-222C, 223A-224C, 225A-226C, 227A-228C, 229A-230C

ALGEBRAIC RELATIONSHIPS

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Understand patterns, relations and functions	
A. Recognize and extend patterns	
<i>recognize or repeat sequences of sounds or shapes</i>	SE/TE: 31C-31H, 31, 33-34A, 34C, 37A-38C
B. Create and analyze patterns	
<i>create and continue patterns</i>	SE/TE: 31A-31J, 31-32, 33A-34C, 35A-36C, 37A-38C, 39A-40C, 41A-42C, 43A-44C, 45A-46C, 47-48B, 225A-226C, 227A-228C, 229A-230C, 233, 233B, 234B
3. Use mathematical models to represent and understand quantitative relationships	
A. Use mathematical models	
<i>model situations that involve whole numbers, using pictures, objects or symbols</i>	<p>Students use a variety of concrete objects and manipulatives, pictures and graphs, and words and symbols to model problem situations in every lesson throughout the curriculum. For example, to learn and practice skills and concepts of addition, students read stories, draw pictures, and manipulate crayons, cubes, and counters to model joining situations, and they progress from drawing pictures to combining words and numbers to using the symbols “+” and “=” to write addition sentences.</p> <p>Sample References: SE/TE: 9-10A, 21-22A, 43-44A, 65-66A, 93-94A, 101-102A, 127-128A, 141-142A, 161-162A, 197-180A, 207-208A, 221-222A, 237-238A, 259-260A, 277-288A</p>

GEOMETRIC AND SPATIAL RELATIONSHIPS

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships	
A. Describe and use geometric relationships	
<i>identify and describe 2- and 3-dimensional shapes using physical models (circle, rhombus, rectangle, triangle, sphere, rectangular prism, cylinder, pyramid) that represent shapes in their environment</i>	SE/TE: 1A, 1D, 1F-1G, 3, 4-4C, 5A, 7A, 10-10A, 10C (Reteaching Master), 11A-12C, 13B-14A, 113A-J, 113-114, 115A-116C, 117A-118C, 119A-120C, 121A-122C, 123A-124C, 125A-126C, 127A-128C, 129A-130C, 131A-132C, 133-134B
2. Specify locations and describe spatial relationships using coordinate geometry and other representational systems	
A. Use coordinate systems	
<i>describe, name and interpret relative positions in space (above, below, front, behind)</i>	SE/TE: 15A-15J, 15-16, 17A-18C, 19A-20C, 21A-22C, 23A-23C, 25A-26C, 27A-28C, 29-30B
3. Apply transformations and use symmetry to analyze mathematical situations	
A. Use transformations on objects	
<i>use manipulatives to recognize from different perspectives and orientations models of slides and turns</i>	Kindergarten students recognize triangles in different orientations, cover shapes with pattern blocks, and manipulate solids by rolling, stacking, and sliding. SE/TE: 118C (Enrichment Master), 119-120C, 121-122A, 126C, 128-128A, 132, 133B, 134B (Extension for Lesson 7-4)

MEASUREMENT

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Understand measurable attributes of objects and the units, systems and processes of measurement	
A. Determine unit of measurement	
<i>compare and order objects according to their size or weight</i>	SE/TE: 151A-151J, 151-152, 153A-154C, 155A-156C, 157A-158C, 161A-162C, 163A-164C, 165A (Problem of the Day), 167A-168C, 169, 170A, 171A-171, 172A, 173-174B
C. Tell and use units of time	
<i>describe passage of time using terms such as today, yesterday, tomorrow</i>	SE/TE: 269A, 269C-269G, 269I-269J, 269, 275A-276C, 277A-278C
D. Count and Compute Money	
<i>identify and know the value of a penny, nickel, dime, and quarter</i>	SE/TE: 235A-235J, 235-236, 237A-238C, 239A-240C, 241A-242C, 243A-244C, 245A-246C, 247-248C, 249-250A, 297A (Problem of the Day)
2. Apply appropriate techniques, tools and formulas to determine measurements	
A. Use standard or non-standard measurement	
<i>measure objects by comparison of lengths (shorter, same, longer)</i>	SE/TE: 151A-151H, 155A-156C, 157A-158C, 161A-162C, 173, 173B, 174-174A

Data and Probability

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Formulate questions that can be addressed with data and collect, organize and display relevant data to answer them	
B. Classify and organize data	
<i>sort items according to their attributes</i>	SE/TE: 1A-1J, 1-2, 3A-4C, 5A-6C, 7A-8C, 9A-10C, 11A-12C, 13-14A, 33A, 113I-J, 113, 125A-126C, 127A-128C, 129A-130C, 132C, 133, 134
C. Represent and interpret data	
<i>create graphs using physical objects</i>	SE/TE: 287C-D, 287F-H, 287, 292A, 292C, 293-294A, 294C, 303, 303B

**Scott Foresman – Addison Wesley enVisionMATH
to the Missouri Mathematics Grade
and Course Level Expectations
Grade One**

NUMBER AND OPERATIONS

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Understand numbers, ways of representing numbers, relationships among numbers and number systems	
A. Read, write and compare numbers	
<i>read, write, and compare whole numbers less than 100</i>	This objective is taught, practiced, reviewed, and assessed throughout the <i>enVision Math</i> curriculum. Sample references are cited here. SE/TE: 3A-6B, 7A-10B, 11A-14B, 15A-18B, 19A-22B, 23A-26B, 263A-266B, 267A-270B, 271A-274B, 275A-278B, 279A-282B, 283A-286B, 287A-290B, 291A-294B, 295A-298B, 303A-306B, 307A-310B, 311A-314B, 315A-318B, 319A-322B, 323A-326B, 609A-612B, 613A-616B, 617A-620B, 621A-624B, 625A-628B, 629A-632B, 633A-636B, 637A-640B
B. Represent and use rational numbers	
<i>recognize $\frac{1}{2}$ and $\frac{1}{4}$ of a shape</i>	SE/TE: 583A-583H, 583-584, 585A-588B, 589A-592B, 593A, 601A, 605-606B
C. Compose and decompose numbers	
<i>compose or decompose whole numbers up to 20 using multiple strategies such as known facts, doubles and close to doubles, tens, and one place value</i>	SE/TE: 117A-117D, 119A-122B, 123A-126B, 127A-130B, 131A-134B, 135A-138B, 139-140A, 141A-141H, 141-142, 143A-146B, 147A-150B, 151A-154B, 155A-158B, 159A-162B, 163A-166B, 167-168A, 169A-169H, 169-170, 171A-174B, 175A-178B, 179A-182B, 183A-186B, 187A-190B, 191-192A, 479A-479H, 479-480, 481A-484B, 485A-488B, 489A-492B, 493A-496B, 497A-500B, 501A-504B, 501A-504B, 505A-508B, 509A-512B, 513-514C, 515A-H, 515-516, 517A-520B, 521A-524B, 525A-528B, 529A-532B, 533A-536B, 537-538A
D. Classify and Describe numeric relationships	
<i>skip count by 2s, 5s and 10s</i>	SE/TE: 168B, 261A-261H, 261, 271A-274B, 275A-278B, 279A-282B, 291A-294B, 295A-298B, 299, 299B, 300

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
2. Understand meanings of operations and how they relate to one another	
A. Represent operations	
<i>represent/ model a given situation involving addition and subtraction of whole numbers using pictures, objects, or symbols</i>	SE/TE: 54, 58, 62, 66, 67A-70B, 74, 76-77, 79-80A, 81G-81H, 86, 86B, 87A, 90, 90B, 91A-91, 94-94B, 95A, 98-98B, 99A-102B, 103A-106B, 107A, 110, 110B, 111A-114B, 115-116C, 141G-141H, 143, 146, 147, 150, 151, 154, 158, 162, 162B, 163A-166B, 167-168A, 171, 174, 178, 186, 187A-190B, 191-191C
3. Compute fluently and make reasonable estimates	
A. Describe or represent mental strategies	
<i>describe or represent the mental strategy used to compute addition and subtraction problems</i>	SE/TE: 27B-27C, 49B, 49C, 71A-74B, 79, 79B, 80, 141A-141H, 141-142, 143A-146B, 147A-150B, 151A-154B, 155A-158B, 159A-162B, 163A-166B, 167-168, 169A-169H, 169-170, 171A-174B, 175A-178B, 179A-182B, 183A-186B, 187A-190B, 191-192A, 479A-479H, 479-480, 481A-484B, 485A-488B, 489A-492B, 493A-496B, 497A-500B, 501A-504B, 501A-504B, 505A-508B, 509A-512B, 513-514C, 515A-H, 515-516, 517A-520B, 521A-524B, 525A-528B, 529A-532B, 533A-536B, 537-538A
B. Develop and demonstrate fluency	
<i>Use strategies to develop fluency with basic number relationships of addition and subtraction for sums up to 20</i>	SE/TE: 141A-141H, 141-142, 143A-146B, 147A-150B, 151A-154B, 155A-158B, 159A-162B, 163A-166B, 167-168, 169A-169H, 169-170, 171A-174B, 175A-178B, 179A-182B, 183A-186B, 187A-190B, 191-192A, 479A-479H, 479-480, 481A-484B, 485A-488B, 489A-492B, 493A-496B, 497A-500B, 501A-504B, 501A-504B, 505A-508B, 509A-512B, 513-514C, 515A-H, 515-516, 517A-520B, 521A-524B, 525A-528B, 529A-532B, 533A-536B, 537-538A
C. Compute problems	
<i>apply and describe the strategy used to solve addition or subtraction problems</i>	SE/TE: 141A-141H, 141-142, 143A-146B, 147A-150B, 151A-154B, 155A-158B, 159A-162B, 163A-166B, 167-168, 169A-169H, 169-170, 171A-174B, 175A-178B, 179A-182B, 183A-186B, 187A-190B, 191-192, 479A-479H, 479-480, 481A-484B, 485A-488B, 489A-492B,

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
	493A-496B, 497A-500B, 501A-504B, 501A-504B, 505A-508B, 509A-512B, 513-514C, 515A-H, 515-516, 517A-520B, 521A-524B, 525A-528B, 529A-532B, 533A-536B, 537-538A, 607A-607H, 607-608, 609A-612B, 613A-616B, 617A-620B, 621A-624B, 625A-628B, 629A-632B, 633A-636B, 637A-640B, 641-642C

ALGEBRAIC RELATIONSHIPS

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Understand patterns, relations and functions	
A. Recognize and extend patterns	
<i>extend patterns of sound, shape, motion or a simple numeric pattern</i>	SE/TE: 168B, 192B, 241A-241H, 241-242, 243A-246B, 247A-250B, 251A-254B, 255A-258B, 259-260B, 271A-274B, 275A-278B, 279A-282B, 283A (Problem of the Day), 291A-294B, 295A-298B, 299-300A
B. Create and analyze patterns	
<i>describe how simple repeating patterns are generated</i>	SE/TE: 241A-241H, 241-242, 243A-246B, 247A-250B, 251A-254B, 255A-258B, 259-260B
2. Represent and analyze mathematical situations and structures using algebraic symbols	
A. Represent mathematical situations	
<i>using addition or subtraction, represent a mathematical situation as an expression or number sentence</i>	SE/TE: 66, 67A-70B, 74, 79-80A, 86B, 90B, 91A, 94B, 95-98B, 99A-102B, 103A-106B, 110, 110B, 111-114B, 115-116C, 141F-141H, 143, 146, 147, 150, 151, 154, 158, 162, 162B, 163A-166B, 167-168, 171, 174, 178, 182, 186, 187A-190B, 191-191C, 322, 492, 524, 616, 628
B. Describe and use mathematical manipulation	
<i>apply the commutative and associative properties of addition to whole numbers</i>	SE/TE: 49B-49C, 71A-74B, 79, 79B, 80, 145, 505A-508B, 515B, 515-516, 521-524B, 537, 537B, 538
3. Use mathematical models to represent and understand quantitative relationships	
A. Use mathematical models	
<i>model situations that involve the addition of whole numbers, using pictures, objects or symbols</i>	SE/TE: 141A-141H, 141-142, 143A-146B, 147A-150B, 151A-154B, 155A-158B, 159A-162B, 163A-166B, 167-168, 169A-169H, 169-170, 171A-174B, 175A-178B, 179A-182B, 183A-186B, 187A-190B, 191-192, 479A-479H, 479-480, 481A-484B, 485A-488B, 489A-492B, 493A-496B, 497A-500B, 501A-504B, 501A-504B, 505A-508B, 509A-512B, 513-514B, 515A-H, 515-516, 517A-520B, 521A-524B, 525A-528B, 529A-532B, 533A-536B, 537-538, 607A-607H, 607-608, 609A-612B, 613A-616B,

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
	617A-620B, 621A-624B, 625A-628B, 629A-632B, 633A-636B, 637A-640B, 641-642C

GEOMETRIC AND SPATIAL RELATIONSHIPS

Missouri Mathematics Grade Level and Course Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships	
A. Describe and use geometric relationships	
<i>identify, name and describe 2- and 3-dimensional shapes using physical models (circle, triangle, trapezoid, rectangle, rhombus, sphere, rectangular prism, cylinder, pyramid)</i>	SE/TE: 193A-H, 193-194, 195A-198B, 199A-202B, 203A-206B, 207A-210B, 211A-214B, 215A-218B, 219A-222B, 223A-226B, 227A-230B, 231A-234B, 235A-238B, 239-240E
C. Compose and decompose shapes	
<i>use models to compose and decompose 2-dimensional shapes</i>	SE/TE: 193, 203A-206B, 207A-210B, 211A, 239-239C
2. Specify locations and describe spatial relationships using coordinate geometry and other representational systems	
A. Use coordinate systems	
<i>describe, name and interpret relative positions in space (left, right)</i>	SE/TE: 553A-556B, 582B (Extension for Lesson 18-4)
3. Apply transformations and use symmetry to analyze mathematical situations	
A. Use transformations on objects	
<i>use manipulatives to model flips</i>	SE/TE: 193B, 193E, 211A-214B, 215A-218B, 219A (Spiral Review), 239, 239B, 240D
C. Use symmetry	
<i>recognize shapes that have symmetry</i>	SE/TE: 193B-193D, 219A-222B, 239-239B, 240-240A

MEASUREMENT

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Understand measurable attributes of objects and the units, systems and processes of measurement	
A. Determine unit of measurement	
<i>select the appropriate tool for the attribute being measured (size, temperature, time, weight)</i>	SE/TE: 393A-393H, 393-394, 395A-398B, 399A-402B, 403A-406B, 407A-410B, 411A-414B, 415A-418B, 419A-422B, 423A-426B, 427A-430B, 431A-434B, 435A-438B, 439A-442B, 443A-446B, 447-450B, 451A-451H, 453A-456B, 457A-460B, 461A-464B, 465A-468B, 469A-472B, 473A, 474, 477-478A
C. Tell and use units of time	
<i>tell time to the nearest half hour</i>	SE/TE: 451A-451H, 451-452, 453A-456B, 457A-460B, 461A-464B, 465A, 468A-468B, 473A, 474, 477-478A
D. Count and Compute Money	
<i>count money to a dollar, including half dollars</i>	SE/TE: 365A-365H, 365-366, 367A-370B, 371A-374B, 375A-378B, 379A-382B, 383A-386B, 387A-390B, 391-392
2. Apply appropriate techniques, tools and formulas to determine measurements	
A. Use standard or non-standard measurement	
<i>use repetition of a single unit to measure something larger than the unit, (e.g. length of book with paper clips)</i>	SE/TE: 393D, 393G-393H, 393-394, 399A-402B, 403A-406B, 407A-410B, 411A, 412-414B, 415A-418B, 419, 447, 449, 450A

Data and Probability

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Formulate questions that can be addressed with data and collect, organize and display relevant data to answer them	
A. Formulate questions	
<i>pose questions and gather data about themselves and their surroundings</i>	SE/TE: 539A-539H, 539-540, 541A-544B, 545A-548B, 549A-552B, 553A-556B, 557A-560B, 561A-564B, 565A-568B, 569A-572B, 581-582B
B. Classify and organize data	
<i>sort and classify items according to their attributes</i>	SE/TE: 193B, 199A-202B, 236 (TE margin refers to Extension), 239, 240E (Extensions for Lesson 8-11) , 260B, 539D, 544, 546-548, 548B, 549A-552, 552B, 582C
C. Represent and interpret data	
<i>Represent one-to-one correspondence data using pictures and bar graphs</i>	SE/TE: 539A-539H, 539-540, 541A-544B, 545A-548B, 549A-552B, 553A-556B, 557A-560B, 561A-564B, 565A-568B, 569A-572B, 581-582C

**Scott Foresman – Addison Wesley enVisionMATH
to the Missouri Mathematics Grade
and Course Level Expectations
Grade Two**

NUMBER AND OPERATIONS

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Understand numbers, ways of representing numbers, relationships among numbers and number systems	
A. Read, write and compare numbers	
<i>read, write, and compare whole numbers less than 1000</i>	This objective is taught, practiced, reviewed, and assessed throughout the <i>enVision Math</i> curriculum. Sample references are cited here. SE/TE: 3A-6B, 11A-14B, 27A-30B, 35A-38B, 59A-62B, 71A-74B, 97A-97D, 97, 99A-102B, 103A-106B, 111A-114B, 115A-118B, 119A-122B, 123A-126B, 132-133, 135A-138B, 139-140E, 219A-222B, 223A-226B, 231-234, 251A-254B, 255A-258B, 263-266, 509B-509E, 519A-522B, 531A-534B, 535A-538B, 539A-542B, 543A-546B, 547-548A, 549C, 559A-562B, 575-578
B. Represent and use rational numbers	
<i>recognize unit fractions of a shape</i>	SE/TE: 349A-349C, 349F-349H, 349-350, 351A-354B, 355A-358B, 359A-362B, 363A-366B, 367A, 371A, 374, 375-376A
C. Compose and decompose numbers	
<i>compose or decompose numbers by using a variety of strategies, such as using known facts, tens place value or landmark numbers to solve problems</i>	SE/TE: 3A-6B, 7A-10B, 11A-14B, 15A-18B, 19A-22B, 23A-26B, 27A-30B, 31F-32A, 55A-58B, 59A-62B, 63A-66B, 69B-69C, 69G-69H, 69, 71A-74B, 75A-78B, 79A-82B, 83A-86B, 87A-90B, 91A-94B, 96-96A, 97A-97H, 99A-102B, 103A-106B, 107A-110B, 111A-114B, 127A-130B, 135A-138B, 139-140C,

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
	171A-174B, 175A-178B, 179A-182B, 183A-186B, 195A-198B, 203A-206B, 207A-210B, 215-215B, 219A-222B, 223A-226B, 231A-234B, 251A-254B, 510
D. Classify and Describe numeric relationships	
<i>skip count by multiples of numbers less than 10</i>	SE/TE: 127A-130B, 131A, 139B, 543-546B, 547-547B, 589D-589E, 589-590, 591, 616B
2. Understand meanings of operations and how they relate to one another	
A. Represent operations	
represent/ model a given situation involving two-digit whole number addition or subtraction	SE/TE: 217A-217H, 219A-222B, 223A-226B, 227A-230B, 231A-234B, 235A-238B, 239A-242B, 243A-246B, 247-248D, 249A-249H, 249-250, 251A-254B, 255A-258B, 259A-262B, 263A-266B, 267A-270B, 271A-274B, 275A-278B, 279-280B, 281A-281H, 281-282, 283A-286B, 291A-294B, 295A-298B, 303A-306B, 307A-310B, 311-312A
3. Compute fluently and make reasonable estimates	
A. Describe or represent mental strategies	
describe or notate the mental strategy used to compute addition or subtraction of whole numbers, including 2-digit numbers	SE/TE: 23A-26B, 27A (Spiral Review), 31F-32A, 33A-33H, 33-34, 35A-38B, 39A-42B, 43A-46B, 47A-50B, 51A-54B, 55A-58B, 59A-62B, 63A-66B, 67-68B, 69A-69H, 69-70, 71A-74B, 75A-78B, 79A-82B, 83A-86B, 87A-90B, 91A-94B, 95-96A, 207-210B, 215-215B, 239A-242B, 247B-247C, 248B-248C
B. Develop and demonstrate fluency	
<i>demonstrate fluency including quick recall with basic number relationships of addition and subtraction for sums up to 20</i>	SE/TE: 1A-1H, 1-2, 3A-6B, 7A-10B, 11A-14B, 15A-18B, 19A-22B, 23A-26B, 27A-30B, 31-32, 33A-33H, 33-34, 35A-38B, 39A-42B, 43A-46B, 47A-50B, 51A-54B, 55A-

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
	58B, 59A-62B, 63A-66B, 67-68, 69A-69H, 69-70, 71A-74B, 75A-78B, 79A-82B, 83A-86B, 87A-90B, 91A-94B, 95-96, 169A-169H, 169-170, 171A-174B, 175A-178B, 179A-182B, 183A-186B, 187A-190B, 191-192, 193A-193H, 193-194, 195A-198B, 199A-202B, 203A-206B, 207A-210B, 211A-214B, 215-216
C. Compute problems	
apply and describe the strategy used to compute 2-digit addition or subtraction problems with regrouping	SE/TE: 217A-217H, 219A-222B, 223A-226B, 227A-230B, 231A-234B, 235A-238B, 239A-242B, 243A-246B, 247-248D, 249A-249H, 249-250, 251A-254B, 255A-258B, 259A-262B, 263A-266B, 267A-270B, 271A-274B, 275A-278B, 279-280B, 281A-281H, 281-282, 283A-286B, 291A-294B, 295A-298B, 303A-306B, 307A-310B, 311-312A
D. Estimate and justify solutions	
<i>estimate sums and differences of whole numbers</i>	SE/TE: 287A-290B, 291A, 299A-302B, 303A (Spiral Review), 307A (Spiral Review), 311-312B, 548B, 555A-558B, 559A, 571A-574B, 575A, 579A, 587-587C

ALGEBRAIC RELATIONSHIPS

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Understand patterns, relations and functions	
A. Recognize and extend patterns	
<i>describe and extend simple numeric patterns and change from one representation to another</i>	SE/TE: 127A-130B, 131A, 139B, 187A-190B, 543-546B, 547-547C, 568-569, 589-590, 635A-638
B. Create and analyze patterns	
<i>describe how simple growing patterns are generated</i>	SE/TE: 127A-130B, 131A, 139B, 187A-190B, 348B, 543-546B, 547-547C, 568-569, 589-590, 635A-638
2. Represent and analyze mathematical situations and structures using algebraic symbols	
A. Represent mathematical situations	
<i>using addition or subtraction, represent a mathematical situation as an expression or number sentence</i>	Sample References: SE/TE: 3A-6B, 7A-10B, 11A-14B, 15A-18B, 19A-22B, 23A-26B, 27A-30B, 63A-66B, 78, 91A-94B, 186, 206, 210, 222, 226, 230, 234, 238, 243A-246B, 258, 262, 266, 270, 274, 278, 278B, 286, 298, 307A-310B
B. Describe and use mathematical manipulation	
<i>solve problems with whole numbers using the commutative and associative properties of addition</i>	SE/TE: 23A-26, 31F, 33B, 33E-33H, 33, 47A-50B, 51A-54B, 55A, 63A (Spiral Review), 63A-66B, 67-68A, 69B, 239A-242B, 247B-247C, 248B-248C
3. Use mathematical models to represent and understand quantitative relationships	
A. Use mathematical models	
<i>model situations that involve addition and subtraction of whole numbers, using pictures, objects or symbols</i>	Students use a variety of concrete objects and manipulatives, pictures and graphs, and words and symbols to model problem situations involving the addition and subtraction of whole numbers. For example, to learn and practice skills and concepts of addition, students read stories, draw pictures, and manipulate connecting cubes and counters to model joining situations, and they progress from drawing pictures to combining words and numbers to using the symbols “+” and “=” to write addition sentences to using symbols to represent unknown quantities in equations involving addition.

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
	<p>Sample References: SE/TE: 23A-26B, 27A-30B, 31F-32A, 33A-33H, 33-34, 35A-38B, 39A-42B, 43A-46B, 47A-50B, 51A-54B, 55A-58B, 59A-62B, 63A-66B, 67-68B, 69A-69H, 69-70, 71A-74B, 75A-78B, 79A-82B, 83A-86B, 87A-90B, 91A-94B, 95-96A, 207-210B, 215-215B, 217A-217H, 219A-222B, 223A-226B, 227A-230B, 231A-234B, 235A-238B, 239A-242B, 243A-246B, 247-248D, 249A-249H, 249-250, 251A-254B, 255A-258B, 259A-262B, 263A-266B, 267A-270B, 271A-274B, 275A-278B, 279-280B, 281A-281H, 281-282, 283A-286B, 291A-294B, 295A-298B, 303A-306B, 307A-310B, 311-312A</p>
4. Analyze change in various contexts	
A. Analyze change	
<i>describe qualitative change, such as students growing taller</i>	<p>Students explore number patterns and changes in time and temperature. SE/TE: 187A-190B, 191-192A, 415A (Problem of the Day), 449D, 463A-466B, 471A, 475-476C, 543-546B, 547-547C, 589, 617B, 635A-638B, 639-639B</p>

GEOMETRIC AND SPATIAL RELATIONSHIPS

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships	
A. Describe and use geometric relationships	
<i>describe attributes and parts of 2- and 3-dimensional shapes (circle, triangle, trapezoid, rectangle, rhombus, sphere, rectangular prism, cylinder, pyramid)</i>	SE/TE: 313A-313H, 313-314, 315A-318B, 319A-322B, 323A-326B, 327A-330B, 331A-334B, 335A-338B, 339A-342B, 343A-346B, 347-348C
C. Compose and decompose shapes	
2. Specify locations and describe spatial relationships using coordinate geometry and other representational systems	
A. Use coordinate systems	
identify locations with simple relationships on a map (coordinate system)	SE/TE: 491A-494B, 495A, 507-507B
3. Apply transformations and use symmetry to analyze mathematical situations	
A. Use transformations on objects	
<i>use manipulatives to model slides and turns</i>	SE/TE: 335A-338B, 339A (Problem of the Day), 347-347C
C. Use symmetry	
<i>create shapes that have symmetry</i>	SE/TE: 313B, 339A-342B, 343A, 347-348A Teacher Resource Masters: Topic 11: 73, 75-78, 80

MEASUREMENT

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Understand measurable attributes of objects and the units, systems and processes of measurement	
A. Determine unit of measurement	
<i>select an appropriate unit and tool for the attribute being measured (size, temperature, time, weight) and to the nearest inch, centimeter, degree, hour and pound</i>	SE/TE: 383A-386B, 387A-390B, 391A-394B, 395A-398B, 399A-402B, 415A-418B, 419A-422B, 423A-426B, 427A-430B, 431A-434B, 435A-438B, 439A-442B 449A-449H, 449-450, 451A-454B, 455A-458B, 459A-462B, 463A, 467A-470B, 471A (Spiral Review), 474, 475-476C
C. Tell and use units of time	
<i>tell time to the nearest one fourth (quarter) hour</i>	SE/TE: 449A-449H, 449-450, 451A-454B, 455A-458B, 459A (Daily Spiral Review), 463A (Daily Spiral Review), 471A (Daily Spiral Review), 474, 475-476B
D. Count and Compute Money	
<i>make change from a dollar</i>	SE/TE: 296-297, 311C Students add and subtract amounts of money to determine a total purchase or to determine how much more money is needed to make a purchase. SE/TE: 281B-281C, 283A-286B, 291A (Spiral Review), 295A-298B, 303A, 307A-310B, 311--312B, 467A (Spiral Review)
2. Apply appropriate techniques, tools and formulas to determine measurements	
A. Use standard or non-standard measurement	
Use standard units of measure (cm, inch) and the inverse relationships between the size and number of units	SE/TE: 377B-377F, 377, 391A-394B, 395A-398B, 399A, 403A, 407A, 411-412C, 413B-413F, 413-414, 415A, 423A-426B, 427A-430B, 435A-438B, 439A-442B, 443A-446B, 447-448B, 449B, 467A-470B, 475-476B, 449B, 467A-470B, 475-476B

Data and Probability

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Formulate questions that can be addressed with data and collect, organize and display relevant data to answer them	
A. Formulate questions	
<i>pose questions and gather data about themselves and their surroundings</i>	SE/TE: 477A-477H, 477-478, 479A-482B, 483A-486B, 487A-490B, 491A-494B, 495, 499-502, 503A-506B, 507-508E
B. Classify and organize data	
<i>sort and classify items according to their attributes and organize data about the items</i>	SE/TE: 163-165B, 316-317, 319A (Problem of the Day), 320-322B, 348B, 483A-486B, 487A-490B, 491A (Spiral Review), 499A (Spiral Review), 501-502, 507-507C, 508B-508C, 508E
C. Represent and interpret data	
<i>represent one-to-many correspondence data using pictures and bar graphs</i>	SE/TE: 477, 480-481, 482B (Enrichment), 483A, 485, 486A, 486B (Enrichment), 490B (Enrichment), 505, 507-507A, 508

**Scott Foresman – Addison Wesley enVisionMATH
to the Missouri Mathematics Grade
and Course Level Expectations
Grade Three**

NUMBER AND OPERATIONS

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Understand numbers, ways of representing numbers, relationships among numbers and number systems	
A. Read, write and compare numbers	
<i>read, write and compare whole numbers up to 10,000</i>	This objective is taught, practiced, reviewed, and assessed throughout the <i>enVisionMath</i> curriculum. Sample references are cited here. SE/TE: 2A-2H, 2-3, 4A-5B, 6A-7B, 8A-9B, 10A-11B, 12A-15B, 16A-17B, 18A (Daily Spiral Review), 22A (Daily Spiral Review), 26A-28, 30A-30F, 30-31, 34A-35B, 43, 48A-49B, 50A-53B, 54A-55B, 56A-57B, 60-62, 114A-115B, 124, 131, 189, 222A-223B, 315, 319, 424
B. Represent and use rational numbers	
<i>Represents halves, thirds and fourths</i>	SE/TE: 274A-274F, 274-275, 276A-277B, 278A-279B, 280A-281B, 282A-283B, 284A-287B, 288A-289B, 290A-293B, 294A-295B, 296A-297B, 298A-299B, 300-303C
C. Compose and decompose numbers	
<i>recognize equivalent representations for the same number and generate them by decomposing and composing numbers including expanded notation</i>	Sample References: SE/TE: 2A-2H, 2-3, 4A-5B, 6A-7B, 8A-9B, 10A-11B, 12A-15B, 16A-17B, 18A-21B, 22A-23B, 24A-25B, 26A-28, 30A-30F, 30-31, 32-33, 34A-35B, 48A-49B, 50A-53B, 54A-55B, 56A-57B, 60-62, 110-113, 125, 304A-304F, 304-305, 306A-307B, 412-413, 416A-417B, 418A-419B, 420A-421B, 423, 436B-437A
D. Classify and Describe numeric relationships	
<i>classify numbers by their characteristics, including odd and even</i>	SE/TE: 64E, 121, 124 (TE margin refers to Extension), 137A (Extension for Lesson 5-6), 193B (Enrichment) Teacher Resource Masters:

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
	Topic 8: 42
2. Understand meanings of operations and how they relate to one another	
A. Represent operations	
<i>Represent/model a given situation involving multiplication and related division using various models including sets, arrays, areas, repeated addition/subtraction, sharing and <u>partitioning</u></i>	SE/TE: 106A-106F, 106-107, 108A-109B, 110A-113B, 114A-115B, 116A-117B, 118A-121B, 122A-125B, 126A-127B, 128A-129B, 130A-131B, 132A-133B, 134-136, 138A-138F, 138-139, 140A-141B, 142A-143B, 144A-147B, 148A-149B, 150A-151B, 152A-153B, 154A-157B, 158-160, 162A-165B, 166A-169B, 170A-171B, 172A-173B, 174A-177B, 178-180, 182A-182F, 182-183, 184A-185B, 186A-189B, 190A-191B, 192A-193B, 194A-195B, 196A-199B, 200-203C, 416A-417B, 418A-419B, 420A-421B, 440A-443B, 448A-451B
B. Describe effects of operations	
<i>Describe the effects of adding and subtracting whole numbers as well as the relationship between the two operations</i>	SE/TE: 30A-30F, 30-31, 32A-33B, 34A-35B, 36A-39B, 40A-43B, 44A-47B, 48A-49B, 50A-53B, 54A-55B, 56A-57B, 58A-59B, 60-62, 64A-64F, 64-65, 66A-67B, 68A-69B, 70A-71B, 72A-73B, 74A-77B, 78A-79B, 80-82, 84A-84F, 84-85, 86A-87B, 88A-89B, 90A-91B, 92A-95B, 96A-97B, 98A-101B, 102-104
3. Compute fluently and make reasonable estimates	
A. Describe or represent mental strategies	
<i>represent a mental strategy used to compute a given multiplication problem up to 9 x 9</i>	SE/TE: 106A-106F, 106-107, 108A-109B, 110A-113B, 114A-115B, 116A-117B, 118A-121B, 122A-125B, 126A-127B, 128A-129B, 130A-131B, 132A-133B, 134-136, 138A-138F, 138-139, 140A-141B, 142A-143B, 144A-147B, 148A-149B, 150A-151B, 152A-153B, 154A-157B, 158-160
B. Develop and demonstrate fluency	
<i>Use strategies develop fluency with basic number relationships (9 X 9) of multiplication and division</i>	SE/TE: 106A-106F, 106-107, 108A-109B, 110A-113B, 114A-115B, 116A-117B, 118A-121B, 122A-125B, 126A-127B, 128A-129B, 130A-131B, 132A-133B,

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
	134-136, 138A-138F, 138-139, 140A-141B, 142A-143B, 144A-147B, 148A-149B, 150A-151B, 152A-153B, 154A-157B, 158-160, 162A-165B, 166A-169B, 170A-171B, 172A-173B, 174A-177B, 178-180, 182A-182F, 182-183, 184A-185B, 186A-189B, 190A-191B, 192A-193B, 194A-195B, 196A-199B, 200-203C
C. Compute problems	
Apply and describe the strategy used to compute up to 3-digit addition or subtraction problems	SE/TE: 30A-30F, 30-31, 32A-33B, 34A-35B, 36A-39B, 40A-43B, 44A-47B, 48A-49B, 50A-53B, 54A-55B, 56A-57B, 58A-59B, 60-62, 64A-64F, 64-65, 66A-67B, 68A-71B, 72A-73B, 74A-77B, 78A-79B, 80-82, 84A-84F, 84-85, 86A-87B, 88A-89B, 90A-91B, 92A-95B, 96A-97B, 98A-101B, 102-104
D. Estimate and justify solutions	
estimate and justify sums and differences of whole numbers	SE/TE: 40-42, 44B-46, 47A-47B, 48, 54, 74B-75, 77A-77B, 78B-79B, 91 (Ex. 22), 419 (Ex. 19), 439 (Ex. 37), 445 (Ex. 15)

ALGEBRAIC RELATIONSHIPS

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Understand patterns, relations and functions	
A. Recognize and extend patterns	
<i>extend geometric (shapes) and numeric patterns to find the next term</i>	SE/TE: 15, 122A-123, 124, 125B (Intervention), 126A, 127B (Reteaching), 128A, 129, 204A-204C, 204, 208A-209B, 210A (Daily Spiral Review), 212A-213, 214-215, 215A-215B, 218A-219, 220-221, 221A-221B, 228-230, 238A (Daily Spiral Review), 247, 252A (Daily Spiral Review), 290A (Daily Spiral Review)
B. Create and analyze patterns	
<i>represent patterns using words, tables or graphs</i>	SE/TE: 15, 18A, 24A, 106D, 122B-123, 125B, 127B, 128A-128, 204A-204D, 205, 210B-211B, 212A-213, 214-215, 215A-215B, 218B-219, 220-221, 221A-221B, 227, 228-231, 352, 354, 355A-355B, 360A-361B, 362-365, 398A-399, 399B (Enrichment)
2. Represent and analyze mathematical situations and structures using algebraic symbols	
A. Represent mathematical situations	
<i>using all operations, represent a mathematical situation as an expression or number sentence</i>	Sample References: SE/TE: 32-33, 66-67, 71, 95, 108-109, 147, 164-165, 184-185, 185B, 189, 189B, 192A (Daily Spiral Review), 200, 201A, 203A, 208, 216A-217B, 223 (TE margin refers to Extensions), 228-231A (Extensions for Lesson 9-7), 425, 426A-428, 429A-429B, 431A-433
B. Describe and use mathematical manipulation	
<i>Use the <u>commutative</u>, <u>distributive</u> and <u>associative</u> properties for basic facts of whole numbers</i>	SE/TE: 30B-30C, 30E, 31, 32A-33B, 34A, 36-39B, 95, 106C, 106E, 107, 110A-112, 113A-113B, 114A, 134, 418A-419B, 425, 430-433
3. Use mathematical models to represent and understand quantitative relationships	
A. Use mathematical models	
<i>model problem situations, including multiplication with objects or drawings</i>	Students use a variety of graphic, concrete, and symbolic models to represent problem situations throughout the curriculum.

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
	<p>Sample References: SE/TE: 2A-2H, 2-3, 4A-5B, 6A-7B, 8A-9B, 10A-11B, 12A-15B, 16A-17B, 18A-21B, 22A-23B, 26A, 26-29, 32-33, 34-35, 48A-49B, 50A-52B, 110-111, 112-113, 121, 125, 205, 210B-211B, 212A-213, 214-215, 215A-215B, 218A-219, 220-221, 221A-B, 227, 228-231, 232B, 232D-232E, 232-233, 240, 241, 246A-247B, 248A-249B, 250A-251B, 252A-253B, 254-256, 258A-258F, 258-259, 260A-263B, 264A-265B, 266A-267B, 268A-269B, 274A-274F, 274-275, 276A-277B, 278A-279B, 280A-281B, 282A-283B, 284A-287B, 288A-289B, 290A-293B, 294A-295B, 296A-297B, 298A-299B, 300-303C, 304C, 304E, 304-305, 306A-307B, 308-309, 311, 311B, 312B, 332-333, 342-343, 382-383, 402A (Daily Spiral Review), 412-413, 416-417, 436B-437A, 456A-456F, 456-457, 458A-459B, 460A-463B, 464A-465B, 466A-467B, 468A-471B, 472A-475B, 476A-477B, 478A-481B, 482A-483B, 484-488</p>
4. Analyze change in various contexts	
<i>describe quantitative change, such as students growing two inches in a year</i>	SE/TE: 205, 210B-211B, 212A-213, 214-215, 215A-215B, 218A-219, 220-221, 221A-B, 227, 228-231, 298B-299B, 302, 303A, 402A (Daily Spiral Review), 483 (Ex. 14)

GEOMETRIC AND SPATIAL RELATIONSHIPS

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships	
A. Describe and use geometric relationships	
<i>compare and analyze 2- dimensional shapes by describing their attributes (circle, rectangle, rhombus, trapezoid, triangle)</i>	SE/TE: 232B, 232D-232E, 232-233, 241, 246A-247B, 248A-249B, 250A-251B, 252A-253B, 254-256, 258A-258F, 258-259, 260A-263B, 264A-265B, 266A-267B, 268A-269B
C. Compose and decompose shapes	
<i>predict the results of putting together or taking apart 2- and 3- dimensional shapes</i>	SE/TE: 232C-232D, 232-233, 234A-235, 236-237, 237A-237B, 238A-239, 240-241, 241A-241B, 254-257, 264A-265B, 266A-267B, 268A-269B, 274A, 274C-274D, 275, 276A-277B, 278A-279B, 280A, 282A-283B, 284A-285, 286-287, 287B, 288A-289B
2. Specify locations and describe spatial relationships using coordinate geometry and other representational systems	
A. Use coordinate systems	
<i>describe location using common language and geometric vocabulary (forward, back, left, right, north, south, east, west)</i>	Grade 3 students locate points on coordinate grids and analyze line graphs. SE/TE: 468A-469, 470-471, 471A-471B, 484-487, 487D
3. Apply transformations and use symmetry to analyze mathematical situations	
A. Use transformations on objects	
<i>determine if two objects are congruent through a slide, flip or turn</i>	SE/TE: 258B, 258E-258F, 259, 260A-261, 263, 263A-263B, 264A (Problem of the Day), 270-272
C. Use symmetry	
<i>identify lines of symmetry in polygons</i>	SE/TE: 258B, 258D, 259, 264A-265B, 266A-267B, 268A-268B, 269A, 270-272

MEASUREMENT

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Understand measurable attributes of objects and the units, systems and processes of measurement	
A. Determine unit of measurement	
<i>Identify, justify and use the appropriate unit of measure (linear, time, weight)</i>	SE/TE: 326A-326F, 326-327, 328A-331B, 332A-333B, 334A-337B, 338A-339B, 340A-341B, 344-346, 348A-348F, 348-349, 350A-351B, 352A-355B, 356A-357B, 358A-359B, 360-361, 362-364, 390D, 390-391, 402A-403B, 406-409
C. Tell and use units of time	
<i>tell time to the nearest five minutes</i>	SE/TE: 390A-390F, 390-391, 392A-395B, 396A-397B, 398A-399B, 400A-401B, 404B-404, 405B, 406-408
D. Count and Compute Money	
<i>determine change from \$5.00 and add and subtract money values to \$5.00</i>	SE/TE: 22A-23B, 27A, 28, 305, 308A, 312, 314, 315B, 322
2. Apply appropriate techniques, tools and formulas to determine measurements	
A. Use standard or non-standard measurement	
<i>use a referent for measures to make comparisons and estimates</i>	SE/TE: 326C-E, 328A-329, 330, 331A-331B, 334A-334, 336, 337, 337B, 338B-339B, 340B-341B, 342, 344-347A, 348B-348E, 350A-351B, 352A-354, 355A-355B, 356A-357B, 358B-359B, 362-365A
C. Apply geometric measurements	
<i>determine the perimeter of polygons</i>	SE/TE: 334A (Problem of the Day), 366A, 366C-366E, 367, 368A-369B, 370A-371B, 372A-373B, 376A (Problem of the Day), 378A (Daily Spiral Review), 380A (Daily Spiral Review), 383, 384A (Daily Spiral Review), 386-389C

Data and Probability

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Formulate questions that can be addressed with data and collect, organize and display relevant data to answer them	
A. Formulate questions	
<i>design investigations to address a given question</i>	SE/TE: 456A-456F, 456-457, 458A-459B, 460A-463B, 464A-465B, 466A-467B, 468A-471B, 472A, 476A, 478A-481B, 482A-483B, 484-487G
C. Represent and interpret data	
<i>read and interpret information from line plots and graphs (bar, line, pictorial)</i>	SE/TE: 456A-456F, 456-457, 458A-459B, 460A-463B, 464A-465B, 466A-467B, 468A-471B, 472A, 476A, 478A-481B, 482A-483B, 484-487G
2. Select and use appropriate statistical methods to analyze data	
A. Describe and analyze data	
<i>describe the shape of data and analyze it for patterns</i>	SE/TE: 456A-456F, 456-457, 458A-459B, 460A-463B, 464A-465B, 466A-467B, 468A, 468, 470-471B, 472A, 476A, 478A-481B, 482A-483B, 484-487G
3. Develop and evaluate inferences and predictions that are based on data	
A. Develop and evaluate inferences	
<i>discuss events related to students' experiences as likely or unlikely</i>	SE/TE: 456B, 456D, 472A-475B, 476A-477B, 478A-481B, 484-487G

**Scott Foresman – Addison Wesley enVisionMATH
to the Missouri Mathematics Grade
and Course Level Expectations
Grade Four**

NUMBER AND OPERATIONS

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Understand numbers, ways of representing numbers, relationships among numbers and number systems	
A. Read, write and compare numbers	
<i>read, write and compare and whole numbers less than 100,000</i>	This objective is taught, practiced, reviewed, and assessed throughout the <i>enVision Math</i> curriculum. Sample references are cited here. SE/TE: 2A-2H, 2-3, 4A-5, 6-7, 7A-7B, 8A-9B, 10A-11, 12-13, 13A-13B, 14A-15B, 22A-25, 26A-26F, 26-27, 28A-29, 30-31, 31A-31B, 32A-33B, 34A-35B, 36A-37, 38-39, 39A-39B, 40A-41B, 42A-43B, 44A-45, 46-47, 47A-47B, 48-50, 237, 438A-439B, 442-445A
B. Represent and use rational numbers	
<i>use models, benchmarks (0, 1/2 and 1) and equivalent forms to judge the size of fractions</i>	SE/TE: 214A-214F, 214-215, 216A-217, 218-219, 219A-219B, 220A-221B, 222A-223B, 224A-225, 226-227, 227A-227B, 228A-229B, 230A-231, 232-233, 233A-233B, 234A-235B, 236A-237B, 238A-239, 240-241, 241A-241B, 242-247A, 248A-248F, 248-249, 250A-251, 252-253, 253A-253B, 254A-255B, 256A-257B, 258A-259, 260-261, 261A-261B, 262-265
C. Compose and decompose numbers	
<i>recognize equivalent representations for the same number and generate them by decomposing and composing numbers</i>	SE/TE: 2A-2H, 2-3, 4A-5, 6-7, 7A-7B, 8A-9B, 10A-11, 12-13, 13A-B, 14A-15B, 22A-24, 26A-26F, 26-27, 28A-29, 30-31, 58A-59B, 62A-63B, 64A-65B, 66A-67B, 71A, 84A-85B, 86B-88, 89, 89A-89B, 96A-97B, 150A-151B, 164A-165B, 173, 177, 178-179, 182A-183B, 184A-185B, 188-193E, 227
D. Classify and Describe numeric relationships	
<i>classify and describe numbers by their characteristics, including odd, even, multiples</i>	SE/TE: 21A, 58A-59B, 62A-63B, 64A-65B, 66A-67B, 71A, 84A-85B, 86B-88,

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
<i>and factors</i>	89, 89A-89B, 96A-97B, 150A-151B, 164A-165B, 173, 177, 178-179, 182A-183B, 184A-185B, 188-193E, 227
2. Understand meanings of operations and how they relate to one another	
A. Represent operations	
<i>represent and recognize multiplication and related division using various models, including equal intervals on the number line, equal size groups, distributive property, etc.</i>	SE/TE: 52A-52F, 52-53, 54A-55, 56-57, 58A-59B, 60A-61B, 62A-63B, 64A-65B, 66A-67B, 68A-69B, 70-73A, 74A-74F, 74-75, 76A-77, 78-79, 79A-79B, 80A-81B, 82A-83B, 84A-85B, 86A-87, 88-89, 89A-89B, 90-93D, 94A-94F, 94-95, 96A-97B, 98A-99B, 102A-104, 105, 105A-105B, 106A-107, 108-109, 109A-109B, 110A-111, 112-113, 113A-113B, 114A-115B, 116A-117, 118-119, 119A-119B, 120-125, 140A-140F, 140-141, 142A-143B, 144A-145B, 146A-147, 148-149, 149A-149B, 150A-151B, 152A-153B, 154A-155B, 156A-157B, 158-161, 162A-162F, 162-163, 164A-165B, 166A-167B, 168A-169B, 170A-171, 172-173, 173A-173B, 174A-175, 176-177, 177A-177B, 178A-179B, 180A-181B, 182A-183B, 184A-185B, 186A-187B, 188-193E
B. Describe effects of operations	
<i>describe the effects of multiplying and dividing whole numbers as well as the relationship between the two operations</i>	SE/TE: 52A-52F, 52-53, 54A-55, 56-57, 58A-59B, 60A-61B, 62A-63B, 64A-65B, 66A-67B, 68A-69B, 70-73A, 74A-74F, 74-75, 76A-77, 78-79, 79A-79B, 80A-81B, 82A-83B, 84A-85B, 86A-87, 88-89, 89A-89B, 90-93D, 94A-94F, 94-95, 96A-97B, 98A-99B, 102A-104, 105, 105A-105B, 106A-107, 108-109, 109A-109B, 110A-111, 112-113, 113A-113B, 114A-115B, 116A-117, 118-119, 119A-119B, 120-125, 140A-140F, 140-141, 142A-143B, 144A-145B, 146A-147, 148-149, 149A-149B, 150A-151B, 152A-153B, 154A-155B, 156A-157B, 158-161, 162A-162F, 162-163, 164A-165B, 166A-167B, 168A-169B, 170A-171, 172-173, 173A-173B, 174A-175, 176-177, 177A-177B, 178A-

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
	179B, 180A-181B, 182A-183B, 184A-185B, 186A-187B, 188-193E
3. Compute fluently and make reasonable estimates	
A. Describe or represent mental strategies	
<i>represent a mental strategy used to compute a given multiplication problem (up to 2-digit by 2-digit multiple of)</i>	SE/TE: 52A-52F, 52-53, 54A-55, 56-57, 58A-59B, 60A-61B, 62A-63B, 64A-65B, 66A-67B, 68A-69B, 70-73A, 94A-94F, 94-95, 96A-97B, 98A-99B, 100A-101B, 102A-103, 104-105, 105A-105B, 106A-107, 108-109, 109A-109B, 110A-111, 112-113, 113A-113B, 114A-115B, 116A-117, 118-119, 119A-119B, 120-125, 140A-140F, 140-141, 142A-143B, 144A-145B, 146A-147, 148-149, 149A-149B, 150A-151B, 152A-153B, 154A-155B, 156A-157B, 158-161
B. Develop and demonstrate fluency	
<i>demonstrate fluency with basic number relationships (12 X 12) of multiplication and related division facts</i>	SE/TE: 52A-52F, 52-53, 54A-55, 56-57, 58A-59B, 60A-61B, 62A-63B, 64A-65B, 66A-67B, 68A-69B, 70-73A, 74A-74F, 74-75, 76A-77, 78-79, 79A-79B, 80A-81B, 82A-83B, 84A-85B, 86A-87, 88-89, 89A-89B, 90-93D
C. Compute problems	
<i>apply and describe the strategy used to compute a given multiplication of 2-digit by 2-digit numbers and related division facts</i>	SE/TE: 140A-140F, 140-141, 142A-143B, 144A-145B, 146A-147, 148-149, 149A-149B, 150A-151B, 152A-153B, 154A-155B, 156A-157B, 158-161, 162A-162F, 162-163, 164A-165B, 166A-167B, 168A-169B, 170A-171, 172-173, 173A-173B, 174A-175, 176-177, 177A-177B, 178A-179B, 180A-181B, 182A-183B, 184A-185B, 186A-187B, 188-193E
D. Estimate and justify solutions	
<i>estimate and justify products of whole numbers</i>	SE/TE: 100A-101B, 102A-104, 105A-105B, 144A-145B, 146A (Problem of the Day), 158-161

ALGEBRAIC RELATIONSHIPS

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Understand patterns, relations and functions	
A. Recognize and extend patterns	
<i>describe geometric and numeric patterns</i>	SE/TE: 20-21, 58B-59, 59B, 108, 128A-129B, 130-131B, 132-133B, 136-139A, 205B (Enrichment), 273, 278, 336-337, 356A-357B, 360, 361A, 448, 462
B. Create and analyze patterns	
<i>analyze patterns using words, tables and graphs</i>	SE/TE: 20B, 20-21, 58B-59, 59B, 108, 128A-129B, 130-131B, 132-133B, 136-139A, 205B (Enrichment), 273, 278, 336-338, 356B, 357, 448, 462
2. Represent and analyze mathematical situations and structures using algebraic symbols	
A. Represent mathematical situations	
<i>using all operations, represent a mathematical situation as an expression or number sentence</i>	SE/TE: 44B-46, 48-49, 50, 62, 64A (Daily Spiral Review), 64, 66, 70, 71A, 126C, 126E-126F, 128B-129B, 130A-131B, 132A-133B, 135, 136-138, 139A, 434A-435B, 436A-437B, 438A-439B, 440B, 442-444
B. Describe and use mathematical manipulation	
<i>use the commutative, distributive and associative properties of addition and multiplication for multidigit numbers</i>	SE/TE: 28A-30, 31A-31B, 52D-52F, 52-53, 60A-61B, 66 (Ex. 5), 79, 98A-99B, 150A-151B, 155
3. Use mathematical models to represent and understand quantitative relationships	
A. Use mathematical models	
<i>model problem situations, using representations such as graphs, tables or number sentences</i>	Students use a variety of concrete objects and manipulatives, including counters and measuring tools, pattern blocks and geometric solids; pictures and graphs, including diagrams, pictographs, bar graphs, and line plots; and words and symbols, including word problems and variables, to model problem situations in every lesson throughout the curriculum. Sample References: SE/TE: 44B-46, 48-49, 50, 62, 64A (Daily Spiral Review), 64, 66, 70, 71A, 126C-126F, 127, 128B-129B, 130A-131B, 132A-133B, 135, 136-138, 139A, 336-

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
	338, 339A, 342, 400A-400F, 400-401, 402A-403B, 404A-405B, 406A-407B, 408A-409B, 410A-411B, 412A-413B, 414A-415B, 416A-417B, 418A-419B, 420A-421, 422-423, 423A-423B, 424-426, 434A-435B, 436A-437B, 438A-439B, 440B, 442-444
4. Analyze change in various contexts <i>describe mathematical relationships in terms of constant rates of change</i>	SE/TE: 126D, 127, 128B-129B, 130A-131B, 132A-133B, 136-138, 336-338, 339A, 342

GEOMETRIC AND SPATIAL RELATIONSHIPS

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships	
A. Describe and use geometric relationships	
<i>name and identify properties of 1-, 2- and 3-dimensional shapes describe the attributes of 2- and 3-dimensional shapes using appropriate geometric vocabulary (rectangular prism, cylinder, pyramid, sphere, cone, parallelism, perpendicularity)</i>	SE/TE: 194A-194F, 194-195, 196A-197B, 198A-199B, 200A-201B, 202A-203B, 204A-205B, 206A-207B, 208A-209B, 210-213A, 344A-344F, 344-345, 346A-347, 348-349, 349A-349B, 350A-351B, 352A-353B, 354A-355B, 356A-357B, 358-361A, 446A-446F, 446-447, 448A-449B, 450A-451B, 452A-453B, 454A-455B, 456A-457B, 458A-459B, 460A-461B, 462-465
C. Compose and decompose shapes	
<i>describe the results of subdividing, combining and transforming shapes</i>	SE/TE: 194C, 194E, 203B (Enrichment), 207B (Enrichment), 319B, 320B-322, 323A-323B, 324A (Problem of the Day), 339, 340-343B, 448B-449B, 450B-451B, 452B-453B, 461A
2. Specify locations and describe spatial relationships using coordinate geometry and other representational systems	
A. Use coordinate systems	
<i>describe movement using common language and geometric vocabulary (forward, back, left, right, north, south, east, west)</i>	SE/TE: 408A-409B, 410A-411B, 424, 426
3. Apply transformations and use symmetry to analyze mathematical situations	
A. Use transformations on objects	
predict the results of sliding/ translating, flipping/ reflecting or turning/ rotating around the center point of a polygon	SE/TE: 446B, 446-447, 448A-449B, 450A-451B, 452A-453B, 454A-455B, 456A, 460A-461B, 462-464
C. Use symmetry	
<i>create a figure with multiple lines of symmetry and identify the lines of symmetry</i>	SE/TE: 336A (Daily Spiral Review), 446B-446D, 456A-457B, 458A-459B, 460A-461B, 462-464
4. Use visualization, spatial reasoning and geometric modeling to solve problems	

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
A. Recognize and draw three-dimensional representations	
<i>given the picture of a prism, identify the shapes of the faces</i>	SE/TE: 344A-344F, 344-345, 346A-347, 348-349, 349A-349B, 350A-351B, 352A-353B, 354A-355B, 358-361A

MEASUREMENT

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Understand measurable attributes of objects and the units, systems and processes of measurement	
A. Determine unit of measurement	
<i>identify and justify the unit of linear measure including perimeter and (customary metric)</i>	SE/TE: 268A (Daily Spiral Review), 314B-314F, 314-315, 328A-329, 330-331, 331A-331B, 332A-333B, 334A-335B, 336A-337, 340-342, 364A-365B, 366A (Problem of the Day), 370B, 371-372, 374A-375B, 394-396
B. Identify equivalent measures	
<i>identify equivalent linear measures within a system of measurement</i>	SE/TE: 364A-365B, 366A-367B, 368A-369B, 370A-371, 372-373, 373A-373B, 374A-375B, 376A-377B, 378A-379B, 380A-381, 382, 383A-383B, 386A, 394-399
C. Tell and use units of time	
<i>tell time to the nearest minute</i>	SE/TE: 362B, 362D, 386-387, 389, 389A-389B, 394-395, 398-399
D. Count and Compute Money	
<i>determine change from \$10.00 and add and subtract money values to \$10.00</i>	SE/TE: 18A-19B, 22-25
2. Apply appropriate techniques, tools and formulas to determine measurements	
A. Use standard or non-standard measurement	
<i>select and use benchmarks to estimate measurements (linear, capacity, weight)</i>	
B. Use angle measurement	
<i>select and use benchmarks to estimate measurements of 0-, 45- (acute), 90- (right) greater than 90 (obtuse) degree angles</i>	SE/TE: 194B, 200A-201B, 202A (Daily Spiral Review), 208B-209B, 210-213A
C. Apply geometric measurements	
<i>determine and justify areas of polygons and non-polygonal regions imposed on a rectangular grid</i>	SE/TE: 314A, 3174C-314D, 315, 316B-317B, 318B-319, 319B, 320-322, 323A-323B, 324B, 326B, 327B, 332B-333B, 334-335, 340-343

Data and Probability

Missouri Mathematics Grade and Level Course Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Formulate questions that can be addressed with data and collect, organize and display relevant data to answer them	
A. Formulate questions	
<i>collect data using observations, surveys and experiments</i>	SE/TE: 400D, 401, 402A-403B
C. Represent and interpret data	
<i>create tables or graphs to represent categorical and numerical data (including line plots)</i>	SE/TE: 126D, 127, 128B-129B, 130A-131B, 132A-133B, 136-138, 336-338, 339A, 342, 400D, 401, 402A-403B, 400E, 404B-405B, 410A-411B, 418A-419B, 420A-421, 423, 423A-423B, 424-429, 429B-429C
2. Select and use appropriate statistical methods to analyze data	
A. Describe and analyze data	
<i>describe important features of the data set</i>	SE/TE: 400A-400F, 400-401, 402A-403B, 404A-405B, 406A-407B, 408A-409B, 410A-411B, 412A-413B, 414A-415B, 416A-417B, 418A-419B, 420A-421, 422-423, 423A-423B, 424-429C
3. Develop and evaluate inferences and predictions that are based on data	
A. Develop and evaluate inferences	
<i>given a set of data, propose and justify conclusions that are based on the data</i>	SE/TE: 400A-400F, 400-401, 402A-403B, 404A-405B, 406A-407B, 408A-409B, 410A-411B, 412A-413B, 414A-415B, 416A-417B, 418A-419B, 420A-421, 422-423, 423A-423B, 424-429C

**Scott Foresman – Addison Wesley enVisionMATH
to the Missouri Mathematics Grade
and Course Level Expectations
Grade Five**

NUMBER AND OPERATIONS

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Understand numbers, ways of representing numbers, relationships among numbers and number systems	
A. Read, write and compare numbers	
<i>read, write and compare whole numbers less than 1,000,000, unit fractions and decimals to hundredths (including location on the number line)</i>	This objective is taught, practiced, reviewed, and assessed throughout the <i>enVision Math</i> curriculum. Sample references are cited here. SE/TE: 2A-2H, 2-3, 4A-5B, 6A-7, 8-9, 9A-9B, 10A-11B, 12A-13B, 14A-15B, 16-17, 17A-17B, 18-20, 27, 28A-29B, 38A-39, 40-41, 41A-41B, 42A-43B, 44A-45B, 64A-65, 68A-69B, 70A-71B, 170A-171B, 172A-173B, 176A-177B, 178A-179B, 180A-181, 183A-183B, 186A-187B, 220A-221, 222, 223A-223B, 224A-225B, 226A-227B, 228A-229B, 230A-231B, 232A, 234A-235, 236-237, 237A-237B, 244A-245B, 248, 256A-257, 258-259, 259A-259B, 280A-281, 284A-285B, 412A-413B, 424
B. Represent and use rational numbers	
<i>recognize and generate equivalent forms of commonly used fractions and decimals</i>	SE/TE: 218B-218F, 219, 224-225B, 226A-227B, 228A-229B, 234A-236, 237A-237B, 238A-241B, 242A-243B, 244A-245B, 248-253, 394B, 398A-399B, 400A-401B, 402A-403B, 406-409B
C. Compose and decompose numbers	
<i>recognize equivalent representations for the same number and generate them by decomposing and composing numbers</i>	SE/TE: 2B, 2D, 2K, 3, 4B-5, 5B, 6B, 10B, 10-11, 11B, 12A-12B, 20, 82B, 106-107, 109A-109B, 210A (Daily Spiral Review), 232B, 232, 238B-239, 241B, 242-243, 243B, 252
D. Classify and Describe numeric relationships	
<i>describe numbers according to their characteristics, including whole number common factors and multiples, prime or composite, and square numbers</i>	SE/TE: 77, 82B, 102A-104, 105A-105B, 106A-108, 109, 109A-109B, 114-115, 148A, 151, 210A (Daily Spiral Review), 232A-233B, 234A, 234-235, 248-250, 254B, 254E, 255, 260A-261B, 262A, 272, 274, 382A-383, 384, 385A-385B, 386A, 390-392, 404A-405B

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
2. Understand meanings of operations and how they relate to one another	
A. Represent operations	
<i>represent and recognize division using various models, including quotative and partitive</i>	SE/TE: 82C-82F, 84B-85B, 86B-87B, 88A-89B, 90A-92, 93A-93B, 94A-96, 97, 97A-97B, 98A-100, 101, 101A-101B, 102A, 110A-112, 113, 113A-113B, 114-119, 119E, 120A-120F, 122B-123B, 124A-125B, 128A-129B, 130A-132, 133A-133B, 134A-135B, 136A-137B, 138A, 140-143, 178A-179B, 180A-183B, 184A-185B, 186A-187B, 188A-191B
B. Describe effects of operations	
<i>describe the effects of addition and subtraction on fractions and decimals</i>	SE/TE: 22C, 42A-43B, 44A-45B, 46-47, 49, 49A-49B, 50-54, 254A-F, 254-255, 256A-259B, 260A-261B, 262A-263B, 264A-265B, 266A-267B, 268A-269B, 270A-271B, 272-274
3. Compute fluently and make reasonable estimates	
A. Describe or represent mental strategies	
<i>describe a mental strategy used to compute a given division problem, where the quotient is a multiple of 10 and the divisor is a 1-digit number (e.g., 350 /7)</i>	SE/TE: 82C, 82E, 84B-85B, 86A-87B, 88A, 99, 114-119
B. Develop and demonstrate fluency	
<i>demonstrate fluency with efficient procedures for adding and subtracting decimals and fractions (with unlike denominators) and division of whole numbers</i>	SE/TE: 22C, 42A-43B, 44A-45B, 46-47, 49, 49A-49B, 50-54, 82C-82F, 84B-85B, 86B-87B, 88A-89B, 90A-92, 93A-93B, 94A-96, 97, 97A-97B, 98A-100, 101, 101A-101B, 102A, 110A-112, 113, 113A-113B, 114-119, 119E, 120A-120F, 122B-123B, 124A-125B, 128A-129B, 130A-132, 133A-133B, 134A-135B, 136A-137B, 138A, 140-143, 254A-F, 254-255, 256A-259B, 260A, 262A-263B, 264A-265B, 266A-267B, 268A-269B, 272-274
C. Compute problems	
<i>apply and describe the strategy used to compute a given division problem up to a 3- digit by 2-digit and addition and subtraction of fractions and decimals</i>	SE/TE: 22C, 42A-43B, 44A-45B, 46-47, 49, 49A-49B, 50-54, 82C-82F, 84B-85B, 86B-87B, 88A-89B, 90A-92, 93A-93B, 94A-96, 97, 97A-97B, 98A-100, 101, 101A-101B, 102A, 110A-112, 113, 113A-113B, 114-119, 119E, 120A-120F, 122B-123B, 124A-125B, 128A-129B,

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
	130A-132, 133A-133B, 134A-135B, 136A-137B, 138A, 140-143, 254A-F, 254-255, 256A-259B, 260A, 262A-263B, 264A-265B, 266A-267B, 268A-269B, 272-274
D. Estimate and justify solutions	
<i>estimate and justify quotients of whole numbers and sums and differences of decimals and fractions</i>	SE/TE: 30A-32, 33A-33B, 37, 50-53, 86A-87B, 88A, 114-118, 119A-119B, 124A-125B, 136A-137B, 140-143A, 184A-185B, 191, 265, 275A, 297, 381, 385, 399, 431, 451

ALGEBRAIC RELATIONSHIPS

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Understand patterns, relations and functions	
A. Recognize and extend patterns	
<i>make and describe generalizations about geometric and numeric patterns</i>	<p>SE/TE: 14A-16, 17A-17B, 33, 77, 122A-123B, 148A-151B, 152B, 203, 296-297, 314, 315A-315B, 325, 346B, 355, 355B (Reteaching), 358-359, 361B (Reteaching), 362-363, 363B (Reteaching), 366B-367B, 382A-383, 384, 385A-385B, 386A, 390-392, 404A-405B, 406-407B</p> <p>Teacher Resource Masters: Topic 1: 49-52</p>
B. Create and analyze patterns	
<i>represent and analyze patterns using words, tables and graphs</i>	<p>SE/TE: 14A-16, 17A-17B, 33, 77, 122A-123B, 148A-151B, 152B, 203, 296-297, 314, 315A-315B, 325, 346B, 355, 355B (Reteaching), 358-359, 361B (Reteaching), 362-363, 363B (Reteaching), 366B-367B, 382A-383, 384, 385A-385B, 386A, 390-392, 404A-405B, 406-407B</p> <p>Teacher Resource Masters: Topic 1: 49-52</p>
2. Represent and analyze mathematical situations and structures using algebraic symbols	
A. Represent mathematical situations	
<i>using all operations, represent a mathematical situation as an expression or number sentence using a letter or symbol</i>	<p>SE/TE: 148A-151B, 152B, 374A-374F, 374-375, 376A-377B, 378A-379B, 380A-381B, 382A-383, 384, 385A-385B, 386A-389B, 390-393B, 404A-405B, 406-407B, 410B, 420A-421B, 422A</p> <p>Teacher Resource Masters: Topic 15: 21-55</p>
B. Describe and use mathematical manipulation	
<i>use the commutative, distributive and associative properties for fractions and decimals</i>	<p>Grade 5 students initially apply these properties to whole numbers.</p> <p>SE/TE: 22A, 22E, 24A-26, 27A-27B, 50, 52, 56A, 58A-59B, 60A, 60, 80, 144B, 156A-157B, 158A, 164, 166, 223</p> <p>Teacher Resource Masters: Topic 2: 30-32</p>

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
	Topic 3: 31-34 Topic 6: 42-44
3. Use mathematical models to represent and understand quantitative relationships	
A. Use mathematical models	
<i>model problem situations and draw conclusions, using representations such as graphs, tables or number sentence</i>	<p>Students use a variety of concrete objects and manipulatives, including counters and measuring tools, pattern blocks and geometric solids; pictures and graphs, including diagrams, pictographs, bar graphs, and line plots; and words and symbols, including word problems and variables, to model problem situations in every lesson throughout the curriculum.</p> <p>Sample References: SE/TE: 148A-151B, 152B, 376A-377B, 378A-379B, 380A-381B, 382A-383, 384, 385A-385B, 386A-389B, 390-392, 404A-405B, 406-407B, 410B, 420A-421B, 422A, 428B-428C, 428E-428F, 429, 430A-431B, 432A-435B, 436A-439B, 440A-443B, 444A-445B, 446A-449B, 450A, 454A-455B, 456-459</p>
4. Analyze change in various contexts	
<i>identify, model and describe situations with constant or varying rates of change</i>	<p>SE/TE: 148A-151B, 152B, 367A-367B, 382B-384, 385A-385B, 386-387, 390-392, 393B (Extension for Lesson 15-4), 404B-405B, 406-407B, 410B, 420B-421B, 422A, 461A</p> <p>Teacher Resource Masters: Topic 14: 81-84 Topic 15: 40-43 Topic 16: 43-46 Topic 17: 40-43</p>

GEOMETRIC AND SPATIAL RELATIONSHIPS

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships	
A. Describe and use geometric relationships	
<i>analyze and classify 2- and 3-dimensional shapes by describing the attributes</i>	SE/TE: 198B-198D, 198F, 199, 200B, 203, 206B-207B, 208A-209B, 210A-211B, 212A-213B, 214-217, 217E-217G, 294D, 300A-302, 303A-303B, 304A-305B, 306A-307B, 308A-309B, 310A-313B, 314A-315B, 316-319E, 320A-320F, 320-321, 322A-324, 325A-325B, 326A-327B, 328A-329B, 330A-331B, 332A-335B, 336A-339B, 340A-341B, 342-344
C. Compose and decompose shapes	
<i>predict and justify the results of subdividing, combining and transforming shapes</i>	SE/TE: 306B, 306-307, 308B, 308-309, 309B (Enrichment), 310A, 314-315, 315B (Enrichment), 319C-319D, 462A-462F, 463, 464A-467B, 468A-469B, 470A-471B, 472A-473B, 474A, 480-483
2. Specify locations and describe spatial relationships using coordinate geometry and other representational systems	
A. Use coordinate systems	
<i>use coordinate systems to specify locations, describe paths and find the distance between points along horizontal and vertical lines</i>	SE/TE: 148A-151B, 152B, 382A-383, 384, 385A-385B, 386A, 390-392, 404A-405B, 406-407B, 410B, 410E, 411, 414A-416, 417A-417B, 418A, 418-419B, 420A-421B, 422A, 424-427
3. Apply transformations and use symmetry to analyze mathematical situations	
A. Use transformations on objects	
<i>predict, draw and describe the results of sliding/ translating, flipping/ reflecting and turning/ rotating around a center point of a polygon</i>	SE/TE: 462A-462F, 463, 464A-467B, 468A-469B, 470A-471B, 472A-473B, 474A, 480-483
C. Use symmetry	
<i>identify polygons and designs with rotational symmetry</i>	SE/TE: 474A-476, 477A-477B, 478A, 480-483

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
4. Use visualization, spatial reasoning and geometric modeling to solve problems	
A. Recognize and draw three-dimensional representations	
<i>given a net of a prism or cylinder, identify the 3-dimensional shape</i>	SE/TE: 300A (Daily Spiral Review), 320A-320F, 320-321, 322A-324, 325A-325B, 326A-327B, 328A-329B, 330A-331B, 332A-335B, 336A-339B, 340A-341B, 342-344

MEASUREMENT

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Understand measurable attributes of objects and the units, systems and processes of measurement	
A. Determine unit of measurement	
<i>identify and justify the unit of measure for area (customary and metric)</i>	SE/TE: 294AB, 294F, 295, 304A-305B, 306A-307B, 308A-309B, 310A, 314B-315B, 316-319 Teacher Resource Masters: Topic 12: 49-65, 73-76
B. Identify equivalent measures	
<i>identify the equivalent weights and equivalent capacities within a system of measurement</i>	SE/TE: 345A, 346A, 346C, 348-349, 349B, 350-351, 351B, 352-353, 353B, 354A-355B, 356A, 356A-357B, 358A, , 368-371, 373A Teacher Resource Masters: Topic 14: 32-35, 39-43, 46-48, 51-60
2. Apply appropriate techniques, tools and formulas to determine measurements	
C. Apply geometric measurements	
<i>determine volume by finding the total number of the same size units needed to fill a space without gaps or overlaps</i>	SE/TE: 332A-334, 335A-335B, 336A (Daily Spiral Review), 336-339B, 340A, 340, 341B, 342-345A Teacher Resource Masters: Topic 13: 53-57, 59-62
E. Use relationships within a measurement system	
<i>convert from one unit to another within a system of linear measurement (customary and metric)</i>	SE/TE: 354A-355B, 356A-357B, 358A, 368-371, 373A Teacher Resource Masters: Topic 14: 51-60

Data and Probability

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Formulate questions that can be addressed with data and collect, organize and display relevant data to answer them	
A. Formulate questions	
<i>evaluate data-collection methods</i>	SE/TE: 428D, 430A-431B, 435B, 456-459
C. Represent and interpret data	
<i>describe methods to collect, organize and represent categorical and numerical data</i>	SE/TE: 428B-428F, 429, 430A-431B, 432A-435B, 436A-439B, 440A-443B, 444A-445B, 446A-449B, 450A, 454A-455B, 456-459, 461A-461B, 499F
2. Select and use appropriate statistical methods to analyze data	
A. Describe and analyze data	
<i>compare related data sets</i>	SE/TE: 428B-428F, 429, 430A-431B, 432A-435B, 436A-439B, 440A-443B, 444A-445B, 446A-449B, 450A, 454A-455B, 456-459, 461A-461B, 499F
3. Develop and evaluate inferences and predictions that are based on data	
A. Develop and evaluate inferences	
<i>given a set of data make and justify predictions</i>	SE/TE: 428B-428F, 429, 430A-431B, 432A-435B, 436A-439B, 440A-443B, 444A-445B, 446A-449B, 450A, 454A-455B, 456-459, 461A-461B, 499F
4. Understand and apply basic concepts of probability	
A. Apply basic concepts of probability	
<i>describe the degree of likelihood of events using such words as certain, equally likely and impossible</i>	SE/TE: 484A-484F, 485, 488A-491B, 492A-493B, 496-499F Teacher Resource Masters: Topic 20: 26-35

**Scott Foresman – Addison Wesley enVisionMATH
to the Missouri Mathematics Grade
and Course Level Expectations
Grade Six**

NUMBER AND OPERATIONS

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Understand numbers, ways of representing numbers, relationships among numbers and number systems	
A. Read, write and compare numbers	
<i>apply and understand whole numbers to millions, fractions and decimals to the thousandths (including location on the number line)</i>	This objective is taught, practiced, reviewed, and assessed throughout the <i>enVision Math</i> curriculum. Sample references are cited here. SE/TE: 8A-9A, 10A-12, 13A-13B, 22A-23B, 36A-38, 39, 39A-39B, 109, 128A-131B, 132A-133B, 134A-135B, 142A-142F, 143, 144A-145B, 146A-147B, 148A-149B, 150A-152, 153A-153B, 156-159, 160C-160D, 162A-163B, 166A-169B, 172A-173B, 174A-177B, 186A-187B, 190A-191B, 192A-193B, 220A, 220C, 222A-223B, 224A-225B, 226A-228, 229A-229B, 230A, 254-257, 342A-342F, 343, 344A-347B, 348A-349B, 350A-351B, 352A-353B, 354A-357B, 358A-361B
B. Represent and use rational numbers	
<i>recognize and generate equivalent forms of fractions, decimals and <u>benchmark</u> percents</i>	SE/TE: 142A-142F, 143, 146A-147B, 148A-149B, 150A-152, 153A-153B, 156-159, 342A-342F, 343, 344A-347B, 348A-349B, 350A-351B, 352A-353B, 354A-357B, 358A-361B
C. Compose and decompose numbers	
<i>recognize equivalent representations for the same number and generate them by decomposing and composing numbers</i>	SE/TE: 2B, 2F, 3, 4-5, 10-11, 14-16, 60B, 64B, 70B-72, 74B-75, 78B-78, 118A, 124A-125B, 126A-127B, 138-141
2. Understand meanings of operations and how they relate to one another	
B. Describe effects of operations	
<i>describe the effects of multiplication and division on fractions and decimals</i>	SE/TE: 18-19, 21A-21B, 70A-72, 73A-73B, 76A-77B, 78A-79B, 84-85, 87, 88-89A, 90-93, 106-108, 184A-184F, 184-185, 186A-187B, 188A-189B, 190A-191B, 192A-

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
	193B, 194-195A, 196-199B, 200A-F, 200-201, 202A-203B, 204A-205B, 206A-207B, 208A-209B, 210A-211B, 212A-213B, 214A, 216-219A
C. Apply properties of operations	
<i>apply properties of operations (including order of operations) to positive rational numbers</i>	SE/TE: 30B, 34A-35B, 36A-38, 39, 39A-39B, 40A-41B, 42-43, 45A, 50A, 54-57, 80A-81B, 82A, 102A (Daily Spiral Review), 192A-192, 222A-223B, 224A, 239, 256
D. Apply operations on real and complex numbers	
Identify square and cubic numbers and determine whole number roots and cubes	SE/TE: 10A-12, 13A-13B, 36A-38, 39, 39A-39B, 109
3. Compute fluently and make reasonable estimates	
C. Compute problems	
<i>multiply and divide positive rational numbers</i>	SE/TE: 18-19, 21A-21B, 70A-72, 73A-73B, 76A-77B, 78A-79B, 84-85, 87, 88-89A, 90-93, 106-108, 184A-184F, 184-185, 186A-187B, 188A-189B, 190A-191B, 192A-193B, 194-195A, 196-199B, 200A-F, 200-201, 202A-203B, 204A-205B, 206A-207B, 208A-209B, 210A-211B, 212A-213B, 214A, 216-219A
D. Estimate and justify solutions	
<i>estimate and justify the results of multiplication and division of positive rational numbers</i>	SE/TE: 25, 62A-63B, 66A-69B, 74, 77, 81, 170A-171B, 244, 312, 325, 327, 436, 440, 469, 482, 523 Teacher Resource Masters: Topic 3: 31-34, 43-45 Topic 7: 45-48
E. Use proportional reasoning	
<i>solve problems using ratios and rates</i>	SE/TE: 300A-301B, 302A-305B, 306A-307B, 308A-309B, 310A-313B, 322A-323B, 324A-325B, 326A-327B, 328A-329B, 330A-333B, 344A-347B, 348A-349B, 350A-351B, 352A-353B, 354A-357B

ALGEBRAIC RELATIONSHIPS

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Understand patterns, relations and functions	
B. Create and analyze patterns	
<i>represent and describe patterns with tables, graphs, pictures, symbolic rules or words</i>	SE/TE: 11, 13B (Enrichment), 48A-49B, 87, 153, 154B, 214B-215A, 290A-291B, 292-293, 296-297, 370B, 370D-370E, 376A-377B, 378A-379B, 392-397, 468, 509B (Enrichment), 527
C. Classify objects and representations	
<i>compare various forms of representations to identify patterns</i>	SE/TE: 11, 13B (Enrichment), 48A-49B, 87, 153, 154B, 214B-215A, 290A-291B, 292-293, 296-297, 370B, 370D-370E, 376A-377B, 378A-379B, 392-397, 468, 509B (Enrichment), 527
D. Identify and compare functions	
<i>identify functions as linear or nonlinear from tables or graphs</i>	SE/TE: 153, 370A-370F, 371, 372A-375B, 376A-377B, 378A-379B, 380A-381B, 382A-385B, 386A-389B, 390A-391B, 392-397B, 461, 468
2. Represent and analyze mathematical situations and structures using algebraic symbols	
A. Represent mathematical situations	
<i>use symbolic algebra to represent unknown quantities in expressions and solve one-step equations</i>	SE/TE: 30A-30F, 31, 32A-33B, 34A-35B, 36A-39B, 40A-41B, 42A-45B, 46A-47B, 48A-49B, 50A-53B, 54-59, 94A-94F, 95, 96A-97B, 98A-101B, 102A-105B, 106A-109B, 110A-113B, 114-117, 153, 370B, 370D-370E, 372A-375B, 372A-375B, 376A-377B, 378A-379B, 380A-381B, 382A-385B, 386A-389B, 390A-391B, 392-397B, 426B, 438-439, 443
B. Describe and use mathematical manipulation	
<i>use the commutative, distributive and associative properties to generate equivalent forms for simple algebraic expressions</i>	SE/TE: 30B, 34A-35B, 40A-41B, 42A, 42-43, 45A, 56, 102A (Daily Spiral Review), 192B-192, 239, 426B, 438-439, 443 Teacher Resource Masters: Topic 2: 37-39, 49-51 Topic 4: 31
3. Use mathematical models to represent and understand quantitative relationships	
A. Use mathematical models	

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
<i>model and solve problems, using multiple representations such as tables, expressions and one-step equations</i>	Students use a variety of concrete objects and manipulatives, including counters and measuring tools, pattern blocks and geometric solids; pictures and graphs, including diagrams, pictographs, bar graphs, and line plots; and words and symbols, including word problems and variables, to model problem situations in every lesson throughout the curriculum. Sample References: SE/TE: 30A-30F, 31, 32A-33B, 34A-35B, 36A-39B, 40A-41B, 42A-45B, 46A-47B, 48A-49B, 50A-53B, 54-59, 94A-94F, 95, 96A-97B, 98A-101B, 102A-105B, 106A-109B, 110A-113B, 114-117B, 153, 370A-370F, 371, 372A-375B, 376A-377B, 378A-379B, 380A-381B, 382A-385B, 386A-389B, 390A-391B, 392-397B, 461, 468
4. Analyze change in various contexts	
<i>construct and analyze representations to compare situations with constant or varying rates of change</i>	SE/TE: 153, 370A-370F, 371, 372A-375B, 376A-377B, 378A-379B, 380A-381B, 382A-385B, 386A-389B, 390A-391B, 392-397B, 461, 468, 479, 517B

GEOMETRIC AND SPATIAL RELATIONSHIPS

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships	
Identify similar and congruent shapes	Topic 11: 284A-287B, 292-293
2. Specify locations and describe spatial relationships using coordinate geometry and other representational systems	
A. Use coordinate systems	
Use coordinate systems to construct geometric shapes	SE/TE: 247, 249, 249B, 287A, 292, 297A, 380A-381B, 382A-385B, 386A-388, 389A-389B, 391-391B, 392-397A, 479, 509B Teacher Resource Masters: Topic 10: 85-86

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – AddisoWesley enVisionMATH
	Topic 11: 81 Topic 15: 46 Topic 19: 96
A. Use transformations on objects	
Describe the transformation from a given pre-image using the terms <u>reflection/flip</u>, <u>rotation/turn</u>, and <u>translation/ slide</u>	SE/TE: 284A-287B, 288A, 292-293, 296-297A Teacher Resource Masters: Topic 11: 80-84, 86
C. Use symmetry	
create polygons and designs with rotational symmetry	SE/TE: 288A-289B, 292-293, 296-297A Teacher Resource Masters: Topic 11: 87-90
4. Use visualization, spatial reasoning and geometric modeling to solve problems	
A. Recognize and draw three-dimensional representations	
use spatial visualization to identify isometric representations of mat plans	Grade 6 students use two-dimensional drawings and nets to visualize three-dimensional figures. SE/TE: 452A-452F, 452-453, 454A-457B, 458A-461B, 462A-463B, 464A-465B, 466A-469B, 470-473
B. Draw and use visual models	
<i>draw or use visual models to represent and solve problems</i>	SE/TE: 274A-277B, 278A-281B, 282A-283B, 284A-287B, 288A-289B, 320B, 320D, 327, 328-329, 330A-333B, 334A-337B, 338-341B, 426A-429B, 430A-433B, 434A-437B, 438A-441B, 442A-443B, 452A-452F, 452-453, 454A-457B, 458A-461B, 462A-463B, 464A-465B, 466A-469B, 470-473

MEASUREMENT

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Understand measurable attributes of objects and the units, systems and processes of measurement	
A. Determine unit of measurement	
<i>identify and justify the unit of measure for area and volume (customary and metric)</i>	SE/TE: 424E, 430B-433B, 434A-437B, 438A, 448-451, 452B, 452D, 452F, 453, 458A, 458-460, 461A-461B, 462A-463B, 464A-465B, 466A, 466-468, 469, 469A-469B, 470-473
C. Tell and use units of time	
<i>solve problems involving elapsed time (hours and minutes)</i>	SE/TE: 407B (Enrichment), 414A-416, 417A-417B, 420-421, 422-423B Teacher Resource Masters: Topic 16: 32, 47-49
2. Apply appropriate techniques, tools and formulas to determine measurements	
B. Use angle measurement	
<i>Identify and justify an angle as acute, obtuse, straight, or right</i>	SE/TE: 260A, 260C-260D, 260F, 266A-269B, 270A-273B, 274A-276, 277A-277B, 278A, 278-281B, 282A, 283, 285, 292-297 Teacher Resource Masters: Topic 11: 50-66, 69-71, 73
C. Apply geometric measurements	
<i>solve problems involving the area or perimeter of polygons</i>	SE/TE: 424A-424F, 426A-429B, 430A-433B, 434A-437B, 438A, 448-451A Teacher Resource Masters: Topic 17: 21-23, 25-29, 31-39
E. Use relationships within a measurement system	
<i>convert from one unit to another within a system of measurement (mass and weight)</i>	SE/TE: 398A-398F, 400A-402, 403A-403B, 404A-407B, 410, 412A, 420-423B, 502A (Daily Spiral Review) Teacher Resource Masters: Topic 16: 23-31 Topic 19: 85

Data and Probability

Missouri Mathematics Grade and Course Level Expectations	Scott Foresman – Addison Wesley enVisionMATH
1. Formulate questions that can be addressed with data and collect, organize and display relevant data to answer them	
A. Formulate questions	
<i>formulate questions, design studies and collect data about a characteristic</i>	SE/TE: 502A-505B, 506A-509B, 512-517, 517C Teacher Resource Masters: Topic 19: 87-89, 93-95
C. Represent and interpret data	
<i>interpret circle graphs; create and interpret stem-and-leaf plots</i>	SE/TE: 474C, 474F, 480A-483B, 484B, 485-486, 487A-487B, 488A-488B, 489, 489B, 493B, 498A-499B, 509, 512-517C Teacher Resource Masters: Topic 19: 44-48, 51-53, 55, 59-60, 66, 75-77
2. Select and use appropriate statistical methods to analyze data	
A. Describe and analyze data	
<i>find the range and measures of center, including median, mode and mean</i>	SE/TE: 474C, 490A-492, 493, 493A-493B, 494A, 500B-501B, 510A-511B, 512-517 Teacher Resource Masters: Topic 19: 63-65, 81-84
3. Develop and evaluate inferences and predictions that are based on data	
A. Develop and evaluate inferences	
use observations about differences between 2 samples to make conjectures about the populations from which the samples were taken	SE/TE: 502A-505B, 506A-509B, 512-517, 517C Teacher Resource Masters: Topic 19: 87-89, 93-95
4. Understand and apply basic concepts of probability	
A. Apply basic concepts of probability	
<i>use a model (diagrams, list, sample space, or area model) to illustrate the possible outcomes of an event</i>	SE/TE: 518A-518F, 520B, 521, 522, 523A-523B, 528A-529B, 530A-532, 533, 533A-533B, 534A-535B, 538-541 Teacher Resource Masters: Topic 20: 25-27, 37-39, 43-46, 49-52