

A Correlation of

Scott Foresman • Addison Wesley

en**Vision**MATH™

to the

**Kansas**

**Curricular Standards for Mathematics  
Knowledge Base & Application Indicators**

Grade Three

PEARSON

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## INTRODUCTION

This correlation is designed to show the close alignment between Scott Foresman-Addison Wesley enVisionMATH and the Kansas Curricular Standards for Mathematics. Correlation page references are to the Teacher's Edition and Student Edition.

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

### **Personalized Curriculum**

en**Vision**MATH™ 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**

en**Vision**MATH™ 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. en**Vision**MATH™ 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**

en**Vision**MATH™ 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  
Kansas Curricular Standards for Mathematics**

**Knowledge Base Indicators**

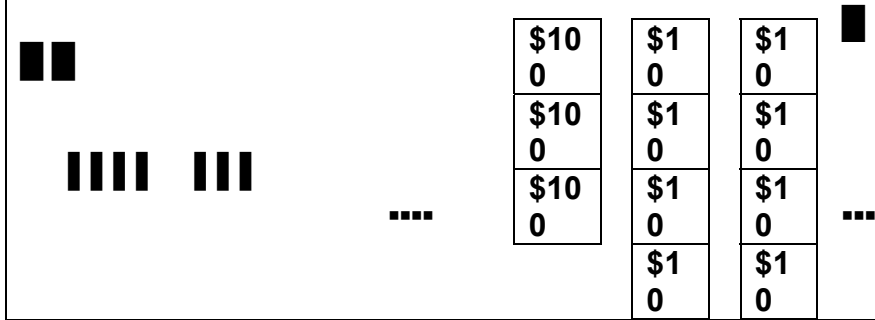
**Grade Three**

**Standard 1: Number and Computation** – The student uses numerical and computational concepts and procedures in a variety of situations.

**Benchmark 1: Number Sense** – The student demonstrates number sense for whole numbers, fractions, decimals, and money using concrete objects in a variety of situations.

Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p><b>The student...</b></p> <p><b>1. knows, explains, and represents (\$):</b></p> <p style="padding-left: 20px;"><b>a. whole numbers from 0 through 10,000 (2.4.K1a-b)</b></p>	<p><b>Topic 1:</b> 2A-2H, 2-3, 4A-5B, 6A-7B, 8A-9B, 10A-11B, 12A-15B, 16A-17B, 26A-28</p> <p><b>Topic 2:</b> 30A-30F, 30-31, 34A-35B, 48A-49B, 50A-53B, 54A-55B, 56A-57B, 60-62</p>
<p style="padding-left: 20px;"><b>b. fractions greater than or equal to zero (halves, fourths, thirds, eighths, tenths, sixteenths) (2.4.K1c) (\$);</b></p>	<p><b>Topic 12:</b> 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</p>
<p style="padding-left: 20px;"><b>c. decimals greater than or equal to zero through tenths place (2.4.K1c).</b></p>	<p><b>Topic 1:</b> 2E, 18B-21B, 22A-23B, 26-29</p> <p><b>Topic 13:</b> 304A-304F, 304-305, 306A-307B, 308A-311B, 312A-315B, 316-317, 322-324</p>

Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p><b>2. compares and orders:</b></p> <p><b>a. ▲ ■ whole numbers from 0 through 10,000 with and without the use of concrete objects (2.4.K1a-b) (\$);</b></p>	<p><b>Topic 1:</b> 2B, 12A-15B, 16A-17B, 18A (Daily Spiral Review), 22A (Daily Spiral Review), 26, 28  <b>Topic 2:</b> 43  <b>Topic 5:</b> 114A-115B, 124, 131  <b>Topic 8:</b> 189  <b>Topic 9:</b> 222A-223B  <b>Topic 13:</b> 315  <b>Topic 18:</b> 424</p>
<p><b>b. fractions greater than or equal to zero with like denominators (halves, fourths, thirds, eighths, tenths, sixteenths) using concrete objects (2.4.K1a,c);</b></p>	<p><b>Topic 12:</b> 274B, 282-283, 288A-289B, 290A-293B, 296A (Daily Spiral Review), 300, 301A, 302, 303A</p>
<p><b>c. decimals greater than or equal to zero through tenths place using concrete objects (2.4.K1a-c).</b></p>	<p><b>Topic 1:</b> 20  <b>Topic 13:</b> 319</p>

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<p>3. ▲ knows, explains, and uses equivalent representations including the use of mathematical models for:</p> <p>a. addition and subtraction of whole numbers from 0 through 1,000 (2.4.K1a-b) (\$), e.g., <math>144 + 236 = 300 + 80</math></p> 	<p><b>Topic 2:</b> 30A-30F, 30-31, 32A-33B, 34A-35B, 36A-39B, 48A-49B, 50A-53B, 54A-55B, 56A-57B, 60-62  <b>Topic 3:</b> 64A-64F, 64-65, 66A-67B, 68A-71B, 72A-73B</p>
<p>b. multiplication using the basic facts through the 5s and the multiplication facts of the 10s (2.4.K1a), e.g., <math>3 \times 2</math> can be represented as <math>4 + 2</math> or as an array, X X X X X X;</p>	<p><b>Topic 5:</b> 106A-106F, 106-107, 108A-109B, 110A-113B, 114A-115B, 116A-117B, 122A-125B, 126A-127B, 128A-129B, 130A-131B, 134-136  <b>Topic 6:</b> 140A-141B, 142A-143B, 144A-147B, 148A-149B</p>
<p>c. addition and subtraction of money (2.4.K1d) (\$), e.g., three half dollars equals <math>50\text{¢} + 50\text{¢} + 50\text{¢}</math> or <math>50\text{¢} + 100\text{¢}</math>.</p>	<p><b>Topic 1:</b> 22A-23B  <b>Topic 13:</b> 304B, 304D-304F, 304-305, 307, 308A-311B, 312A-315B, 316-317, 320-321, 322-324</p>
<p>4. ▲ N determines the value of mixed coins and bills with a total value of \$50 or less (2.1.K1d) (\$).</p>	<p><b>Topic 1:</b> 18A-21B, 22A-23B, 24A, 26A, 26-27A, 28-29  <b>Topic 13:</b> 304B, 304D-304F, 304-305, 307, 308A-311B, 312A-315B, 316-317, 320-321, 322-324</p>

**Benchmark 2: Number Systems and Their Properties** – The student demonstrates an understanding of whole numbers with a special emphasis on place value and recognizes, uses, and explains the concepts of properties as they relate to whole numbers, fractions, decimals, and money in a variety of situations.

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<p>The student...</p> <p>1. identifies, reads, and writes numbers using numerals and words from tenths place through ten thousands place (2.4.K1a-b) (\$), e.g., sixty-four thousand, three hundred eighty and five tenths is written in numerical form as 64,380.5.</p>	<p><b>Topic 1:</b> 2A-2H, 2-3, 4A-5B, 6A-7B, 8A-9B, 10A-11B, 12A-15B, 16A-17B, 18A-21B, 22A-23B, 24A-25B, 26A-28  <b>Topic 13:</b> 304A-304F, 304-305, 306A-307B</p>
<p>2. identifies, models, reads, and writes numbers using expanded form from tenths place through ten thousands place (2.4.K1b), e.g., <math>56,277.3 = (5 \times 10,000) + (6 \times 1,000) + (2 \times 100) + (7 \times 10) + (7 \times 1) + (3 \times .1) = 50,000 + 6,000 + 200 + 70 + 7 + .3</math>.</p>	<p><b>Topic 1:</b> 2A, 4A-5B, 6A-7B, 8B-9B, 10A (Problem of the Day), 12A, 16A (Daily Spiral Review), 26A, 26-28</p>
<p>3. classifies various subsets of numbers as whole numbers, fractions (including mixed numbers), or decimals (2.4.K1a-c, 2.4.K1i)</p>	<p><b>Topic 1:</b> 2A-2H, 2-3, 4A-5B, 6A-7B, 8A-9B  <b>Topic 12:</b> 274A-274F, 274-275, 276A-277B, 278A-279B, 280A-281B  <b>Topic 13:</b> 304A-304F, 304-305, 306A-307B, 308A-311B, 312A-315B</p>
<p>4. identifies the place value of various digits from tenths to one hundred thousands place (2.4.K1b) (\$).</p>	<p><b>Topic 1:</b> 2A-2H, 2-3, 4A-5B, 6A-7B, 8A-9B, 10A-11B, 12A-15B, 16A-17B, 26A, 26-28  <b>Topic 2:</b> 48A-49B, 50A-52B  <b>Topic 13:</b> 306A-307B  <b>Topic 18:</b> 412-413  <b>Topic 19:</b> 436B-437A</p>

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5. identifies any whole number through 1,000 as even or odd (2.4.K1a).	Grade 3 students explore multiples of 2. <b>Topic 5:</b> 106B, 122A-123, 125B
6. uses the concepts of these properties with whole numbers from 0 through 100 and demonstrates their meaning including the use of concrete objects (2.4.K1a) (\$):  a. commutative properties of addition and multiplication, e.g., $7 + 8 = 8 + 7$ or $3 \times 6 = 6 \times 3$ ;	  <b>Topic 2:</b> 30C, 30E, 31, 32A-33B, 34A <b>Topic 4:</b> 95 <b>Topic 5:</b> 106C, 106E, 107, 110A-112, 113A-113B, 114A, 134, 135A
b. zero property of addition (additive identity), e.g., $4 + 0 = 4$ ;	<b>Topic 2:</b> 30E, 31, 32A-33B <b>Topic 4:</b> 95
c. property of one for multiplication (multiplicative identity), $1 \times 3 = 3$ ;	<b>Topic 5:</b> 106E, 107, 130A-131B, 136
d. associative property of addition, e.g., $(3 + 2) + 4 = 3 + (2 + 4)$ ;	<b>Topic 2:</b> 30B, 30E, 31, 32A-33B, 34A, 36-39B <b>Topic 4:</b> 95
e. symmetric property of equality applied to addition and multiplication, e.g., $100 = 20 + 80$ is the same as $20 + 80 = 100$ and $3 \times 4 = 12$ is the same as $12 = 3 \times 4$ ;	Grade 3 students rearrange terms in addition/subtraction and multiplication/division number sentences as they write families of facts. <b>Topic 3:</b> 66B-66 <b>Topic 8:</b> 186A-187, 188, 189A-189B, 190A-191B, 192A-193B
f. zero property of multiplication, e.g., $9 \times 0 = 0$ or $0 \times 32 = 0$ .	<b>Topic 5:</b> 106E, 107, 130A-131B, 134, 136

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<p>7. divides whole numbers from 0 through 99,999 into groups of 10,000s; 1,000s; 100s; 10s, and 1s using base ten models (2.4.K1b).</p>	<p><b>Topic 1:</b> 2A-2H, 2-3, 4A-5B, 6A-7B, 8A-9B, 10A-11B, 12A-15B, 16A-17B, 26A, 26-28  <b>Topic 2:</b> 48A-49B, 50A-52B  <b>Topic 18:</b> 412-413  <b>Topic 19:</b> 436B-437A</p>

**Benchmark 3: Estimation** – The student uses computational estimation with whole numbers, fractions, and money in a variety of situations.

Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p>The student...</p> <p>1. estimates whole numbers quantities from 0 through 1,000; fractions (halves, fourths); and monetary amounts through \$500 using various computational methods including mental math, paper and pencil, concrete objects, and appropriate technology (2.4.K1a-d) (\$).</p>	<p><b>Topic 2:</b> 40-42, 44-46, 48, 54  <b>Topic 3:</b> 74-75, 79  <b>Topic 4:</b> 91  <b>Topic 6:</b> 146  <b>Topic 8:</b> 185  <b>Topic 9:</b> 215, 221  <b>Topic 18:</b> 414-415, 419  <b>Topic 19:</b> 438-439, 445</p>
<p>2. uses various estimation strategies to estimate using whole number quantities from 0 through 1,000 and explains the process used (2.4.K1a) (\$) e.g., 362 rounded to the nearest ten is 360 and 362 rounded to the nearest hundred is 400. Using front-end estimation, 362 is about 300 or 400 depending on the context of the problem. Using a “nice” number, 362 is about 350 because of the benchmark number – 350, since 350 is the halfway point between 300 and 400.</p>	<p><b>Topic 2:</b> 40-42, 44-46, 48, 54  <b>Topic 3:</b> 74-75, 79  <b>Topic 4:</b> 91  <b>Topic 6:</b> 146  <b>Topic 8:</b> 185  <b>Topic 9:</b> 215, 221  <b>Topic 18:</b> 414-415, 419  <b>Topic 19:</b> 438-439, 445</p>



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<p><b>3. recognizes and explains the difference between an exact and an approximate answer (2.4.K1a), e.g., when asked how many students are in a classroom, an exact answer could be 24. Whereas, an approximate answer could be 20 since 24 could be rounded down to the nearest ten (underestimated) or rounded up to 30 (overestimated).</b></p>	<p><b>Topic 2:</b> 40-42, 44-46, 48, 54  <b>Topic 3:</b> 74-75, 79  <b>Topic 4:</b> 91  <b>Topic 6:</b> 146  <b>Topic 8:</b> 185  <b>Topic 9:</b> 215, 221  <b>Topic 18:</b> 414-415, 419  <b>Topic 19:</b> 438-439, 445</p>

**Benchmark 4: Computation** – The student models, performs, and explains computation with whole numbers and money including the use of concrete objects in a variety of situations.

Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p><b>The student...</b></p> <p><b>1. computes with efficiency and accuracy using various computational methods including mental math, paper and pencil, concrete objects, and appropriate technology (2.4.K1a) (\$).</b></p>	<p><b>Topic 2:</b> 32A-33B, 34A-35B, 48A-49B, 54A-55B, 56A-57B  <b>Topic 4:</b> 86A-87B, 88A-89B, 90A-91B, 96A-97B  <b>Topic 18:</b> 412A-413B, 416A-417B, 418A-419B, 420A-421B  <b>Topic 19:</b> 444A-445B, 446A-447B</p>
<p><b>2. N states and uses with efficiency and accuracy the multiplication facts through the 5s and the multiplication facts of the 10s and corresponding division facts (2.4.K1a) (\$).</b></p>	<p><b>Topic 5:</b> 108A-109B, 110A-113B, 114A-115B, 116A-117B, 122A-125B, 126A-127B, 128A-129B, 130A-131B  <b>Topic 6:</b> 140A-141B, 142A-143B, 148A-149B  <b>Topic 7:</b> 170A-171B  <b>Topic 8:</b> 184A-185B, 190A-191B, 192A-193B</p>
<p><b>3. skip counts (multiples) by 2s, 3s, 4s, 5s, and 10s (2.4.K1a).</b></p>	<p><b>Topic 1:</b> 15  <b>Topic 5:</b> 122A-123, 124, 125B (Intervention), 126A, 127B (Reteaching), 128A, 129  <b>Topic 9:</b> 204A-204C, 204, 208A-209B, 210A (Daily Spiral Review), 228, 230</p>

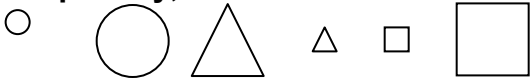
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<p><b>4. N performs and explains these computational procedures:</b></p> <p><b>a. adds and subtracts whole numbers from 0 through 10,000 (2.4.K1a-b);</b></p>	<p><b>Topic 2:</b> 30A-30F, 30-31, 32A-33B, 34A-35B, 36A-39B, 48A-49B, 50A-53B, 54A-55B  <b>Topic 4:</b> 84A-84F, 84-85, 86A-87B, 88A-89B, 90A-91B, 92A-95B, 96A-97B</p>
<p><b>b. multiplies whole numbers when one factor is 5 or less and the other factor is a multiple of 10 through 1,000 with or without the use of concrete objects (2.4.K1a-b), e.g., <math>400 \times 3 = 120</math> or <math>70 \times 5 = 350</math>;</b></p>	<p><b>Topic 5:</b> 126A-127B, 136  <b>Topic 18:</b> 412A-413B, 414A-415B, 416A (margin notes), 430-431A</p>
<p><b>c. adds and subtracts monetary amounts using dollar and cents notation through \$500.00 (2.4.K1d) (\$), e.g., <math>\\$47.07 + \\$356.96 = \\$404.03</math>.</b></p>	<p><b>Topic 1:</b> 22A-23B  <b>Topic 13:</b> 304B, 304D-304F, 304-305, 307, 308A-311B, 312A-315B, 316-317, 320-321, 322-324</p>
<p><b>5. fair shares/measures out (divides) a total amount through 100 concrete objects into equal groups (2.4.K1a-b), e.g., fair sharing 52 pieces of candy with 8 friends resulting in eight groups of 6 with four pieces left over or measuring out into groups of eight 52 pieces of candy with four pieces left over.</b></p>	<p><b>Topic 7:</b> 162A-162E, 162-163, 164A-165B, 166A-169B, 170A-171B, 172A-173B, 178-180  <b>Topic 8:</b> 187 (#12), 192B, 196B, 202  <b>Topic 19:</b> 437, 440B, 441, 444B</p>
<p><b>6. explains the relationship between addition and subtraction (2.4.K1a-b) (\$).</b></p>	<p><b>Topic 3:</b> 66A-67B, 59 (#7), 72A (Problem of the Day)</p>
<p><b>7. ▲ ■ N identifies multiplication and division fact families through the 5s and the multiplication and division fact families of the 10s (2.4.K1a), e.g., when given <math>6 \times \square = 18</math>, the student recognizes the remaining members of the fact family.</b></p>	<p><b>Topic 8:</b> 182A-182F, 182-183, 184A-185B, 186A-187, 189A-189B, 190A-191B, 192A-193B, 200-203C</p>

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<p>8. reads and writes horizontally, vertically, and with different operational symbols the same addition, subtraction, multiplication, or division expression, e.g., <math>4 \cdot 6</math> is the same as <math>4 \times 6</math> or <math>4(6)</math> or <math>6</math> and <math>10</math> divided by <math>2</math> is the same as <math>10 \div 2</math> or <math>\frac{10}{2}</math>.</p>	<p><b>Topic 2:</b> 48, 54, 56  <b>Topic 4:</b> 86, 88, 90  <b>Topic 5:</b> 123, 126, 128  <b>Topic 8:</b> 187, 190, 192  <b>Topic 19:</b> 441, 446, 450-451</p>

**Standard 2: Algebra** – The student uses algebraic concepts and procedures in a variety of situations.

**Benchmark 1: Patterns** – The student recognizes, describes, extends, develops, and explains relationships in patterns using concrete objects in a variety of situations.

Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p>The student...</p> <p>1. uses concrete objects, drawings, and other representations to work with types of patterns (2.4.K1a):</p> <p>a. repeating patterns, e.g., an AB pattern is like 1-2, 1-2, ...; an ABC pattern is like dog-horse-pig, dog-horse-pig, ...; an AAB pattern is like <math>\uparrow\uparrow\rightarrow</math>, <math>\uparrow\uparrow\rightarrow</math>, ...;</p>	<p><b>Topic 9:</b> 204A, 204C, 205, 206A-207B, 218A, 230  <b>Topic 10:</b> 247</p>
<p>b. growing patterns, e.g., 1, 4, 7, 10, ...</p>	<p><b>Topic 1:</b> 15  <b>Topic 5:</b> 122A-123, 124, 126A, 128A, 129  <b>Topic 9:</b> 204A-204C, 204, 208A-209B, 210A-211B, 212A-213, 214-215, 215A-215B, 218A-219, 220-221</p>

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<p><b>2. uses these attributes to generate patterns:</b></p> <p><b>a. counting numbers related to number theory (2.4.K1a), e.g., evens, odds, or multiples through the 5s;</b></p>	<p><b>Topic 1:</b> 15  <b>Topic 5:</b> 106B, 122A-123, 124, 125B (Intervention), 126A, 127B (Reteaching), 128A, 129  <b>Topic 9:</b> 204A-204C, 204, 208A-209B, 210A (Daily Spiral Review), 228, 230</p>
<p><b>b. whole numbers that increase or decrease (2.4.K1a) (\$),e.g., 3, 6, 9, ...; 20, 15, 10, ...;</b></p>	<p><b>Topic 1:</b> 15  <b>Topic 5:</b> 122A-123, 124, 125B (Intervention), 126A, 127B (Reteaching), 128A, 129  <b>Topic 9:</b> 204A-204C, 204, 208A-209B, 210A (Daily Spiral Review), 212A-213, 214-215, 215A-215B</p>
<p><b>c. geometric shapes including one attribute change (2.4.K1f), e.g., ■-□-△-▲, ■-□-△-▲, ■-□-△-▲,... where the pattern is filled-in square, square, triangle, filled-in triangle, ...; or when using attribute blocks the change is size only, then shape only, ... such as</b></p> 	<p><b>Topic 9:</b> 218A-219, 220-221, 221A-221B, 228-230  <b>Topic 10:</b> 238A (Daily Spiral Review), 247, 252A (Daily Spiral Review)  <b>Topic 12:</b> 290A (Daily Spiral Review)</p>
<p><b>d. measurements (2.4.K1a), e.g., 1 ft, 2 ft, 3 ft, ...; 3 lbs, 6 lbs, 9 lbs; or 2 cups, 4 cups, 6 cups, ...;</b></p>	<p><b>Topic 14:</b> 339B (Enrichment)  <b>Topic 15:</b> 350A (margin notes), 352, 354, 355A-355B, 360A-361B, 362-365</p>
<p><b>e. money and time (2.4.K1a,d) (\$), e.g., \$.25, \$.50, \$.75, ... or 1:05 p.m., 1:10 p.m., 1:15 p.m., ...;</b></p>	<p><b>Topic 1:</b> 18A-19, 21A-21B, 22B-23B, 24A, 28  <b>Topic 17:</b> 390E, 391, 392B, 398A-398, 399B (Enrichment)</p>
<p><b>f. things related to daily life (2.4.K1a), e.g., water cycle, food cycle, or life cycle;</b></p>	<p><b>Topic 1:</b> 18A-19, 21A-21B, 22B-23B, 24A, 28  <b>Topic 17:</b> 390E, 391, 392B, 398A-398, 399B (Enrichment)</p>

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<p><b>g. things related to size, shape, color, texture, or movement (2.4.K1a), e.g., red-green, red-green, red-green, ...; snapping fingers; clapping hands; stomping feet; or tossing a bean bag over the head, under the leg, and behind the back (kinesthetic patterns).</b></p>	<p><b>Topic 9:</b> 205, 218A-219, 220-221, 221A-221B, 228-230  <b>Topic 10:</b> 238A (Daily Spiral Review), 247, 252A (Daily Spiral Review)</p>
<p><b>3. identifies, states, and continues a pattern presented in various formats including numeric (list or table), visual (picture, table, or graph), verbal (oral description), kinesthetic (action), and written (2.4.K1a) (\$).</b></p>	
<p><b>4. generates:</b>  <b>a. repeating patterns (2.4.K1a),</b></p>	<p><b>Topic 9:</b> 204A, 204C, 205, 206A-207B, 218A, 230  <b>Topic 10:</b> 247</p>
<p><b>b. growing (extending) patterns (2.4.K1a),</b></p>	<p><b>Topic 1:</b> 15  <b>Topic 5:</b> 122A-123, 124, 126A, 128A, 129  <b>Topic 9:</b> 204A-204C, 204, 208A-209B, 210A-211B, 212A-213, 214-215, 215A-215B, 218A-219, 220-221</p>
<p><b>c. patterns using function tables (input/output machines, T-tables) (2.4.K1e).</b></p>	<p><b>Topic 9:</b> 205, 210B-211B, 212A-213, 214-215, 215A-215B, 218A-219, 220-221, 221A-B, 227, 228-231  <b>Topic 12:</b> 298B-299B, 302, 303A  <b>Topic 17:</b> 402A (Daily Spiral Review)  <b>Topic 20:</b> 483 (#14)</p>

**Benchmark 2: Variables, Equations, and Inequalities** – The student uses symbols and whole numbers to solve equations including the use of concrete objects in a variety of situations.

Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p>The student...</p> <p>1. explains and uses symbols to represent unknown whole number quantities from 0 through 1,000 (2.4.K1a)</p>	<p>Topic 2: 32-33            Topic 3: 66-67, 71            Topic 4: 95            Topic 5: 108-109            Topic 7: 164            Topic 8: 184-185, 189, 189B, 192A (Daily Spiral Review), 200, 201A, 203A            Topic 9: 208            Topic 18: 425</p>
<p>2. finds the sum or difference in one-step equations with (\$):</p> <p>a. whole numbers from 0 through 99 (2.4.K1a) e.g., <math>89 = 76 + y</math> or <math>y - 23 = 32</math>;</p>	<p>Topic 2: 32-33            Topic 3: 66-67, 70-71            Topic 4: 94-95            Topic 5: 108-109            Topic 8: 192A (Daily Spiral Review), 200, 203A</p>
<p>b. monetary values through a dollar (2.4.K1d), e.g., <math>25¢ + 10¢ + 5¢ = n</math>.</p>	<p>Topic 8: 199B (Practice)            Topic 13: 310, 311B, 314, 316, 324</p>
<p>3. finds the unknown in the multiplication and division fact families through the 5s and the 10s (2.4.K1a), e.g., <math>3 \cdot \square = 4 \cdot 6</math>.</p>	<p>Topic 5: 108-109            Topic 7: 164            Topic 8: 184A-185B, 189B, 192A (Daily Spiral Review), 201A            Topic 18: 425</p>

Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p><b>4. compares two whole numbers from 0 through 1,000 using the equality and inequality symbols (<math>=</math>, <math>&lt;</math>, <math>&gt;</math>) and their corresponding meanings (is equal to, is less than, is greater than) (2.4.K1a-b) (\$).</b></p>	<p><b>Topic 1:</b> 2B, 12A-15B, 16A-17B, 18A (Daily Spiral Review), 22A (Daily Spiral Review), 26, 28  <b>Topic 2:</b> 43  <b>Topic 5:</b> 114A-115B, 124, 131  <b>Topic 8:</b> 189  <b>Topic 9:</b> 222A-223B  <b>Topic 13:</b> 315  <b>Topic 18:</b> 424</p>

**Benchmark 3: Functions** – The student recognizes and describes whole number relationships using concrete objects in a variety of situations.

Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p><b>The student...</b></p> <p><b>1. states mathematical relationships between whole numbers from 0 through 200 using various methods including mental math, paper and pencil, concrete objects, and appropriate technology (2.4.K1a) (\$), e.g., every time a quarter is added to the amount; 25¢ is added to the total.</b></p>	<p><b>Topic 9:</b> 205, 210B-211B, 212A-213, 214-215, 215A-215B, 218A-219, 220-221, 221A-B, 227, 228-231  <b>Topic 12:</b> 298B-299B, 302, 303A  <b>Topic 17:</b> 402A (Daily Spiral Review)  <b>Topic 20:</b> 483 (#14)</p>

Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH																		
<p>2. finds the values and determines the rule with one operation (addition, subtraction) of whole numbers from 0 through 200 using a horizontal or vertical function table (input/output machine, T-table) (2.4.K1e), e.g., using this input/output machine, different student responses might be that the rule is Input minus 10 equals Output, the rule is <math>N - 10</math>, or the rule is subtract 10.</p> <table border="1" data-bbox="533 656 798 922"> <thead> <tr> <th>Input</th> <th>Output</th> </tr> </thead> <tbody> <tr> <td>92</td> <td>82</td> </tr> <tr> <td>156</td> <td>146</td> </tr> <tr> <td>13</td> <td>3</td> </tr> <tr> <td>113</td> <td>103</td> </tr> <tr> <td>?</td> <td>59</td> </tr> <tr> <td>106</td> <td>?</td> </tr> <tr> <td>?</td> <td>?</td> </tr> <tr> <td>N</td> <td>?</td> </tr> </tbody> </table>	Input	Output	92	82	156	146	13	3	113	103	?	59	106	?	?	?	N	?	<p><b>Topic 9:</b> 205, 210B-211B, 212A-213, 214-215, 215A-215B, 218A-219, 220-221, 221A-B, 227, 228-231  <b>Topic 12:</b> 298B-299B, 302, 303A  <b>Topic 17:</b> 402A (Daily Spiral Review)  <b>Topic 20:</b> 483 (#14)</p>
Input	Output																		
92	82																		
156	146																		
13	3																		
113	103																		
?	59																		
106	?																		
?	?																		
N	?																		
<p>3. ▲ generalizes numerical patterns using whole numbers from 0 through 200 with one operation (addition, subtraction) by stating the rule using words, e.g., if the sequence is 30, 50, 70, 90, ...; in words, the rule is add twenty to the number before.</p>	<p><b>Topic 1:</b> 15  <b>Topic 5:</b> 122A-123, 124, 125B (Intervention), 126A, 127B (Reteaching), 128A, 129  <b>Topic 9:</b> 204A-204C, 204, 208A-209B, 210A (Daily Spiral Review), 212A-213, 214-215, 215A-215B</p>																		

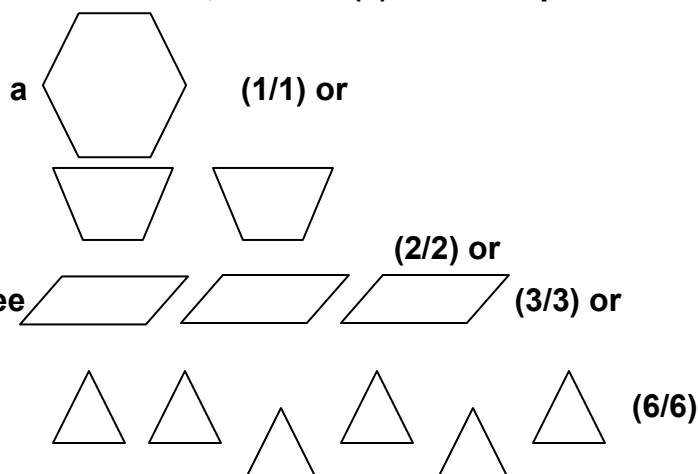


Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p><b>4. uses a function table (input/output machine, T-table) to identify and plot ordered pairs in the first quadrant of a coordinate plane (2.4.K1a,e).</b></p>	<p>Function table references:  <b>Topic 9:</b> 205, 210B-211B, 212A-213, 214-215, 215A-215B, 218A-219, 220-221, 221A-B, 227, 228-231  <b>Topic 12:</b> 298B-299B, 302, 303A  <b>Topic 17:</b> 402A (Daily Spiral Review)  <b>Topic 20:</b> 483 (#14)  Grade 3 students locate points on coordinate grids and analyze line graphs.  <b>Topic 20:</b> 468A-469, 470-471, 471A-471B, 484-487, 487D</p>

**Benchmark 4: Models** – The student develops and uses mathematical models including the use of concrete objects to represent and show mathematical relationships in a variety of situations.

Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p><b>The student...</b></p> <p><b>1. knows, explains, and uses mathematical models to represent mathematical concepts, procedures, and relationships. Mathematical models include:</b></p> <p><b>a. process models (concrete objects, pictures, number lines, coordinate planes/grids, hundred charts, measurement tools, multiplication arrays, or division sets) to model computational procedures and mathematical relationships (1.2.K1, 1.2.K.1a, 1.2.K2 1.2.K3, 1.2.K5-6, 1.3.K1-3, 1.4.K1-3, 1.4.K1a-b, 1.4.K5-7, 2.1.K1, 2.1.K2a, 2.1.K2d-g, 2.1.K3, 2.1.K4a-b, 2.2.K1, 2.2.K2, 2.2.K3-4, 2.3.K1, 2.3.K4, 3.2.K1-4, 3.3.K1, 3.4.K1-3, K.2.K3) (\$);</b></p>	<p><b>Topic 1:</b> 4-5  <b>Topic 2:</b> 32-33, 34-35, 49, 50-52  <b>Topic 5:</b> 110-111, 112-113, 125  <b>Topic 11:</b> 268-269  <b>Topic 12:</b> 290A-293B  <b>Topic 14:</b> 332-333, 342-343  <b>Topic 16:</b> 382-383  <b>Topic 18:</b> 416-417  <b>Topic 20:</b> 468A-471B</p>

Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p>b. place value models (place value mats, hundred charts, base ten blocks or unifix cubes) to compare, order, and represent numerical quantities and to model computational procedures (1.1.K1c, 1.1.K2a, 1.1.K2c, 1.1.K3a, 1.2.K1-4, 1.2.K7, 1.3.K1, 1.4.K4a-b, 1.4.K5-6, 2.2.K4) (\$);</p>	<p><b>Topic 1:</b> 2A-2H, 2-3, 4A-5B, 6A-7B, 8A-9B, 10A-11B, 12A-15B, 16A-17B, 26A, 26-28  <b>Topic 2:</b> 48A-49B, 50A-52B  <b>Topic 13:</b> 306A-307B  <b>Topic 18:</b> 412-413  <b>Topic 19:</b> 436B-437A</p>
<p>c. fraction models (fraction strips or pattern blocks) and decimal models (base ten blocks or coins) to compare, order, and represent numerical quantities (1.1.K1b, 1.1.K2b-c, 1.2.K3, 1.3.K1) (\$);</p>	<p><b>Topic 12:</b> 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  <b>Topic 13:</b> 304C, 306A-307B</p>
<p>d. money models (base ten blocks or coins) to compare, order, and represent numerical quantities (1.1K3c, 1.1.K4, 1.3.K1, 1.4.K4c, 2.1.K2e, 2.2.K2b) (\$);</p>	<p><b>Topic 1:</b> 18A-21B, 22A-23B, 26-29  <b>Topic 10:</b> 240  <b>Topic 13:</b> 304E, 304-305, 308-309, 311, 311B, 312B</p>
<p>e. function tables (input/output machines, T-tables) to find numerical relationships (2.1.K4c, 2.3.K2, 2.3.K4) (\$);</p>	<p><b>Topic 9:</b> 205, 210B-211B, 212A-213, 214-215, 215A-215B, 218A-219, 220-221, 221A-B, 227, 228-231  <b>Topic 12:</b> 298B-299B, 302, 303A  <b>Topic 17:</b> 402A (Daily Spiral Review)  <b>Topic 20:</b> 483 (#14)</p>
<p>f. two-dimensional geometric models (geoboards, dot paper, pattern blocks, or tangrams) to model perimeter, area, and properties of geometric shapes and three-dimensional geometric models (solids) and real-world objects to compare size and to model attributes of geometric shapes (2.1.K2c, 3.1.K1-6, 3.2.K5, 3.3.K2);</p>	<p><b>Topic 10:</b> 232B, 232D-232E, 232-233, 241, 246A-247B, 248A-249B, 250A-251B, 252A-253B, 254-256  <b>Topic 11:</b> 258A-258F, 258-259, 260A-263B, 264A-265B, 266A-267B, 268A-269B</p>

Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p><b>g. two-dimensional geometric models (spinners), three-dimensional models (number cubes), and process models (concrete objects) to model probability (4.1.K1-2) (\$);</b></p>	<p><b>Topic 20:</b> 456B, 456D, 472A-475B, 476A-477B, 478A-481B, 484-488</p>
<p><b>h. graphs using concrete objects, representational objects, or abstract representations, pictographs, frequency tables, horizontal and vertical bar graphs, Venn diagrams or other pictorial displays, line plots, charts, and tables to organize and display data (2.3.K4, 4.1.K2, 4.2.K1a-d, 4.2.K1f-g, 4.2.K2) (\$);</b></p>	<p><b>Topic 5:</b> 121  <b>Topic 20:</b> 456A-456F, 456-457, 458A-459B, 460A-463B, 464A-465B, 466A-467B, 468A-471B, 472A, 476A, 478A-481B, 482A-483B, 484-488</p>
<p><b>i. Venn diagrams to sort data and show relationships (1.2.K3).</b></p>	<p><b>Topic 5:</b> 121</p>
<p><b>2. creates a mathematical model to show the relationship between two or more things, e.g., using pattern blocks, a whole (1) can be represented as</b></p>  <p>The diagram illustrates how a whole (represented by a large hexagon) can be partitioned into smaller parts (pattern blocks) to represent fractions. The whole is labeled 'a' and '(1/1) or'. Two trapezoids are shown below it, labeled 'two' and '(2/2) or'. Three parallelograms are shown below that, labeled 'three' and '(3/3) or'. Six triangles are shown at the bottom, labeled 'six' and '(6/6)'.</p>	<p><b>Topic 10:</b> 232D  <b>Topic 11:</b> 264A-265B, 266A-267B, 268A-269B  <b>Topic 12:</b> 274A, 274C-274D, 275, 276A-277B, 278A-279B, 280A, 282A-283B, 284A-285, 286-287, 287B, 288A-289B</p>

**Standard 3: Geometry** – The student uses geometric concepts and procedures in a variety of situations.

**Benchmark 1: Geometric Figures and Their Properties** – The student recognizes geometric shapes and investigates their properties using concrete objects in a variety of situations.

Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p>The student...</p> <p>1. recognizes and investigates properties of plane figures (circles, squares, rectangles, triangles, ellipses, rhombi, octagons) using concrete objects, drawings, and appropriate technology (2.4.K1f).</p>	<p><b>Topic 10:</b> 232B, 232D-232E, 232-233, 241, 246A-247B, 248A-249B, 250A-251B, 252A-253B, 254-256  <b>Topic 11:</b> 258A-258F, 258-259, 260A-263B, 264A-265B, 266A-267B, 268A-269B</p>
<p>2. recognizes, draws, and describes plane figures (circles, squares, rectangles, triangles, ellipses, rhombi, octagons) (2.4.K1f).</p>	<p><b>Topic 10:</b> 232B, 232D-232E, 232-233, 241, 246A-247B, 248A-249B, 250A-251B, 252A-253B, 254-256  <b>Topic 11:</b> 258A-258F, 258-259, 260A-263B, 264A-265B, 266A-267B, 268A-269B</p>
<p>3. ■ recognizes the solids (cubes, rectangular prisms, cylinders, cones, spheres) (2.4.K1f).</p>	<p><b>Topic 10:</b> 232A, 232C, 232-233, 234A-235, 236-237, 237A-237B, 238A-239, 240-241, 241A-241B, 254-257</p>
<p>4. ▲ recognizes and describes the square, triangle, rhombus, hexagon, parallelogram, and trapezoid from a pattern block set (2.4.K1f).</p>	<p><b>Topic 10:</b> 232B, 232D-232E, 232-233, 246A-247B, 248A-249B, 250A-251B, 252A-253B, 254-256  <b>Topic 11:</b> 258A-258F, 258-259, 260A-263B, 264A-265B, 266A-267B, 268A-269B</p>
<p>5. recognizes and describes a quadrilateral as any four-sided figure (2.4.K1f).</p>	<p><b>Topic 10:</b> 232B, 232D-232E, 232-233, 241, 246B-247B, 250A-251B, 252A-253B, 254-256</p>
<p>6. determines if geometric shapes and real-world objects contain line(s) of symmetry and draws the line(s) of symmetry if the line(s) exist(s) (2.4.K1f).</p>	<p><b>Topic 11:</b> 258B, 258D, 259, 264A-265B, 266A-267B, 268A-268B, 269A, 270-272</p>

**Benchmark 2: Measurement and Estimation** – The student estimates and measures using standard and nonstandard units of measure with concrete objects in a variety of situations.

Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p>The student...</p> <p>1. uses whole number approximations (estimations) for length, width, weight, volume, temperature, time, and perimeter using standard and nonstandard units of measure (2.4.K1a) (\$).</p>	<p><b>Topic 14:</b> 328A-329, 330, 331A-331B, 334A-334, 336, 337B, 344-347  <b>Topic 15:</b> 350A-351B, 352B, 355B</p>
<p>2. ▲ reads and tells time to the minute using analog and digital clocks (2.4.K1a).</p>	<p><b>Topic 17:</b> 390A-390F, 390-391, 392A-395B, 396A-397B, 398A-399B, 400A-401B, 404B-404, 405B, 406-408</p>
<p>3. selects, explains the selection of, and uses measurement tools, units of measure, and degree of accuracy appropriate for a given situation to measure (2.4.K1a) (\$):</p> <p>a. length width, and height to the nearest half inch, inch, foot, and yard; and to the nearest whole unit of nonstandard unit;</p>	<p><b>Topic 14:</b> 326A-326F, 326-327, 328A-331B, 332A-333B, 334A-337B, 344-346</p>
<p>b. length, width, and height to the nearest centimeter and meter;</p>	<p><b>Topic 15:</b> 348A-348F, 348-349, 350A-351B, 352A-355B, 360-361, 362-364</p>
<p>c. weight to the nearest whole unit of a nonstandard unit;</p>	<p><b>Topic 14:</b> 326B, 326D, 340A-341B, 344-346  <b>Topic 15:</b> 348B, 348D-348E, 348-349, 358A-359B, 362-364</p>
<p>d. volume to the nearest cup, pint, quart, and gallon;</p>	<p><b>Topic 14:</b> 326E, 326-327, 338A-339B, 344-346</p>
<p>e. volume to the nearest liter;</p>	<p><b>Topic 15:</b> 348B-348C, 348E, 356A-357B, 362-364</p>
<p>f. temperature to the nearest degree.</p>	<p><b>Topic 17:</b> 390D, 390-391, 402A-403B, 406-409</p>

Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH
<b>4. states (2.4.K1a):</b>	
<b>a. the number of hours in a day and days in a year;</b>	<b>Topic 17:</b> 398A-399B, 406-408
<b>b. the number of inches in a foot, inches in a yard, and feet in a yard;</b>	<b>Topic 14:</b> 326A-326F, 326-327, 328A-331B, 332A-333B, 334A-337B, 344-346
<b>c. the number of centimeters in a meter;</b>	<b>Topic 15:</b> 348A-348F, 348-349, 350A-351B, 352A-355B, 360-361, 362-364
<b>d. the number of cups in a pint, pints in a quart, and quarts in a gallon.</b>	<b>Topic 14:</b> 326E, 326-327, 338A-339B, 344-346
<b>5. finds the perimeter of squares, rectangles, and triangles given the measures of all the sides (2.4.K1f).</b>	<b>Topic 16:</b> 366A, 366C-366E, 367, 368A-369B, 370A-371B, 372A-373B, 376A (Problem of the Day), 378A (Daily Spiral Review), 380A (Daily Spiral Review), 384A (Daily Spiral Review), 386-389C

**Benchmark 3: Transformational Geometry** – The student recognizes and performs one transformation on simple shapes or concrete objects in a variety of situations.

Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH
<b>The student...</b>	
<b>1. knows and uses cardinal points (north, south, east, west) and intermediate points (northeast, southeast, northwest, southwest) (2.4.K1a).</b>	Grade 3 students locate points on coordinate grids and analyze line graphs. <b>Topic 20:</b> 468A-469, 470-471, 471A-471B, 484-487, 487D
<b>2. recognizes and performs one transformation (reflection/flip, rotation/turn, and translation/slide) on a two-dimensional figure (2.4.K1f).</b>	<b>Topic 11:</b> 258B, 258E-258F, 259, 260A-261, 263, 263A-263B, 270-272

**Benchmark 4: Geometry from An Algebraic Perspective** – The student relates geometric concepts to a number line and the first quadrant of a coordinate plane in a variety of situations.

Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p>The student...</p> <p>1. uses a number line (horizontal/vertical) to model the basic multiplication facts through the 5s and the multiplication facts of the 10s (2.4.K1a).</p>	<p>Grade 3 students use a number line to compare and order numbers and to model addition.  <b>Topic 1:</b> 2B  <b>Topic 2:</b> 32-33A  <b>Topic 12:</b> 290A-291, 292-293, 293A-293B, 300-302  <b>Topic 14:</b> 332B</p>
<p>2. identifies points on a coordinate plane (coordinate grid) using (2.4.K1a):</p> <p>a. two positive whole numbers,</p>	<p>Grade 3 students locate points on coordinate grids and analyze line graphs.  <b>Topic 20:</b> 468A-469, 470-471, 471A-471B, 484-487, 487D</p>
<p>b. a letter and a positive whole number.</p>	<p>Grade 3 students locate points on coordinate grids and analyze line graphs.  <b>Topic 20:</b> 468A-469, 470-471, 471A-471B, 484-487, 487D</p>
<p>3. identifies points as ordered pairs in the first quadrant of a coordinate plane (coordinate grid) (2.4.K1a).</p>	<p>Grade 3 students locate points on coordinate grids and analyze line graphs.  <b>Topic 20:</b> 468A-469, 470-471, 471A-471B, 484-487, 487D</p>

**Standard 4: Data** – The student uses concepts and procedures of data analysis in a variety of situations.

**Benchmark 1: Probability** – The student applies the concepts of probability to draw conclusions and to make predictions and decisions including the use of concrete objects in a variety of situations.

Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p>The student...</p> <p>1. recognizes any outcome of a simple event in an experiment or simulation as impossible, possible, certain, likely, unlikely, or equally likely (2.4.K1g) (\$).</p>	<p>Topic 20: 456B, 456D, 472A-475B, 476A-477B, 478A-481B, 484-488</p>
<p>2. ▲ ■ lists some of the possible outcomes of a simple event in an experiment or simulation including the use of concrete objects (2.4.K1g-h).</p>	<p>Topic 20: 456B, 456D, 472A-475B, 476A-477B, 478A-481B, 484-488</p>

**Benchmark 2: Statistics** – The student collects, organizes, displays, explains, and interprets numerical (whole numbers) and non-numerical data sets including the use of concrete objects in a variety of situations.

Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p>The student...</p> <p>1. organizes, displays, and reads numerical (quantitative) and non-numerical (qualitative) data in a clear, organized, and accurate manner including a title, labels, categories, and whole number intervals using these data displays (2.4.K1h) (\$):</p>	



Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH
a. graphs using concrete objects;	Grade 3 students use a variety of graphs and data displays, including pictographs, bar graphs, line graphs, line plots, and Venn diagrams. <b>Topic 5:</b> 121 <b>Topic 20:</b> 456A-456F, 456-457, 458A-459B, 460A-463B, 464A-465B, 466A-467B, 468A-471B, 472A, 476A, 478A-481B, 482A-483B, 484-488
b. pictographs with a whole symbol or picture representing one, two, five, ten, twenty-five, or one-hundred (no partial symbols or pictures);	<b>Topic 20:</b> 456A-456F, 456-457, 460A-463B, 464A-465B, 484-488
c. frequency tables (tally marks);	<b>Topic 20:</b> 456A-456F, 456-457, 458A-459B, 472B, 475, 476A (Daily Spiral Review), 476B, 482B-483, 483B, 484-488
d. horizontal and vertical bar graphs;	<b>Topic 20:</b> 456A-456F, 456-457, 460A-463B, 466-467, 482A-483B, 484-488
e. Venn diagrams or other pictorial displays, e.g., glyphs;	<b>Topic 5:</b> 121
f. line plots;	<b>Topic 20:</b> 478A-479, 480-481, 481A-481B, 484-487
g. charts and tables.	<b>Topic 9:</b> 205, 210B-211B, 212A-213, 214-215, 215A-215B, 218A-219, 220-221, 221A-B, 227, 228-231 <b>Topic 12:</b> 298B-299B, 302, 303A <b>Topic 17:</b> 402A (Daily Spiral Review) <b>Topic 20:</b> 456A-456F, 456-457, 458A-459B, 472B, 475, 476A (Daily Spiral Review), 476B, 482B-483, 483B, 484-488
2. collects data using different techniques (observations, polls, surveys, or interviews) and explains the results (2.4.K1h) (\$).	<b>Topic 20:</b> 456A, 456C-456D, 457, 458A-459B, 464A-465B, 466A-467B, 482A-483B, 484-488

Grade Three Knowledge Base Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p><b>3. ▲ finds these statistical measures of a data set with less than ten data points using whole numbers from 0 through 1,000 (2.4.K1a) (\$):</b></p> <p><b>a. minimum and maximum data values,</b></p>	<p><b>Topic 20:</b> 456A-456F, 456-457, 458A-459B, 460A-463B, 464A-465B, 466A-467B, 468A-471B, 472A, 476A, 478A-481B, 482A-483B, 484-488</p>
<p><b>b. range,</b></p>	<p><b>Topic 20:</b> 460A (Daily Spiral Review, #1)</p>
<p><b>c. mode (uni-modal only),</b></p>	<p><b>Topic 20:</b> 456A-456F, 456-457, 458A-459B, 460A-463B, 464A-465B, 466A-467B, 468A-471B, 472A, 476A, 478A-481B, 482A-483B, 484-488</p>
<p><b>d. median when data set has an odd number of data points.</b></p>	<p>Grade 3 students analyze graphs and other data displays to determine minimum and maximum data values, differences between data values, and most frequent data values.</p> <p><b>Topic 20:</b> 456A-456F, 456-457, 458A-459B, 460A-463B, 464A-465B, 466A-467B, 468A-471B, 472A, 476A, 478A-481B, 482A-483B, 484-488</p>

**Scott Foresman – Addison Wesley enVisionMATH  
to the  
Kansas Curricular Standards for Mathematics**

**Application Indicators**

**Grade Three**

**Standard 1: Number and Computation** – The student uses numerical and computational concepts and procedures in a variety of situations.

**Benchmark 1: Number Sense** – The student demonstrates number sense for whole numbers, fractions, decimals, and money using concrete objects in a variety of situations.

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<p><b>The student...</b></p> <p><b>1. solves real-world problems using equivalent representations and concrete objects to (\$):</b></p> <p style="padding-left: 20px;"><b>a. compare and order whole numbers from 0 through 5,000 (2.4.A1a-b), e.g., using base ten blocks, represent the total school attendance for a week; then represent the numbers using digits and compare and order in different ways;</b></p>	<p><b>Topic 1:</b> 2B, 12A-15B, 16A-17B, 18A (Daily Spiral Review), 22A (Daily Spiral Review), 26, 28</p> <p><b>Topic 2:</b> 43</p> <p><b>Topic 5:</b> 114A-115B, 124, 131</p> <p><b>Topic 8:</b> 189</p> <p><b>Topic 9:</b> 222A-223B</p> <p><b>Topic 13:</b> 315</p> <p><b>Topic 18:</b> 424</p>

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<p>b. add and subtract whole numbers from 0 through 1,000 and when used as monetary amounts (2.4.A1a,d) (\$), e.g., use real money to show at least 2 ways to represent \$10.42; then subtract the cost of a book purchases at the school’s book fair from \$10.42 (the amount you have earned and can spend).</p>	<p><b>Topic 2:</b> 30A-30F, 30-31, 32A-33B, 34A-35B, 36A-39B, 48A-49B, 50A-53B, 54A-55B, 56A-57B, 60-62  <b>Topic 3:</b> 64A-64F, 64-65, 66A-67B, 68A-71B, 72A-73B</p>
<p>2. determines whether or not solutions to real-world problems that involve the following are reasonable (\$):</p> <p>a. whole numbers from 0 through 1,000 (2.4.A1a-b), e.g., a student says that there are 1,000 students in grade 3 at her school, is this reasonable?</p>	<p>In a lesson on reasonableness, students learn how to verify that a solution is possible and appropriate.  <b>Topic 3:</b> 78A-79B</p>
<p>b. fractions greater than or equal to zero (halves, fourths, thirds, eighths, tenths, sixteenths) (2.4.A1a,c); e.g., you ate <math>\frac{1}{2}</math> of a sandwich and a friend ate <math>\frac{3}{4}</math> of the same sandwich; is this reasonable?</p>	<p>In a lesson on reasonableness, students learn how to verify that a solution is possible and appropriate.  <b>Topic 3:</b> 78A-79B</p>
<p>c. decimals greater than or equal to zero when used as monetary amounts (2.4.A1d), e.g., a pack of chewing gum costs what amount - \$62 \$ .75 9¢ \$75.00 750¢? Is this reasonable?;</p>	<p>In a lesson on reasonableness, students learn how to verify that a solution is possible and appropriate.  <b>Topic 3:</b> 78A-79B</p>

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<p>3. determines the amount of change owed through \$100.00 (2.4.A1d), e.g., school supplies cost \$12.37. What was the amount of change received after giving the clerk \$20.00? To solve, <math>\\$20.00 - \\$12.37 = \\$7.63</math> (the change).</p>	<p>Topic 1: 22A-23B, 27A, 28 Topic 13: 305, 308A, 312, 314, 315B, 322</p>

**Benchmark 2: Number Systems and Their Properties** – The student demonstrates an understanding of whole numbers with a special emphasis on place value and recognizes, uses, and explains the concepts of properties as they relate to whole numbers, fractions, decimals, and money in a variety of situations.

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<p>The student...</p> <p>1. solves real-world problems with whole numbers from 0 through 100 using place value models, money, and the concepts of these properties to explain reasoning (2.4.A1a-b,d) (\$):</p> <p>a. commutative property of addition, e.g., a student has a dime, a nickel, and a quarter to purchase a pencil; he/she totals the amount of the coins to see whether or not there is enough money; the student could count the quarter, nickel, and dime as <math>25¢ + 5¢ + 10¢</math> or as <math>25¢ + 10¢ + 5¢</math> because adding in any order does not change the sum;</p>	<p>Topic 2: 30C, 30E, 31, 32A-33B, 34A Topic 4: 95</p>

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<p>b. zero property of addition, e.g., a student has 6 marbles in one pocket and none in the other, so all together there are: <math>6 + 0 = 6</math>;</p>	<p>Topic 2: 30E, 31, 32A-33B Topic 4: 95</p>
<p>c. associative property of addition, e.g., a student has two dimes and a quarter; there are 2 ways to group the coins to find the total: <math>10¢</math> (dime) + <math>10¢</math> (dime) = <math>20¢</math>, then add the quarter, <math>20¢ + 25¢</math> (quarter) = <math>45¢</math> or <math>10¢</math> (dime) + <math>25¢</math> (quarter) = <math>35¢</math>, then add the other dime to <math>35¢</math> and <math>35¢ + 10¢ = 45¢</math> or <math>(D + D) + Q = D + (D + Q)</math> using coins or money models.</p>	<p>Topic 2: 30B, 30E, 31, 32A-33B, 34A, 36-39B Topic 4: 95</p>
<p>2. performs various computational procedures with whole numbers from 0 through 100 using the concepts of these properties and explains how they were used (2.4.A1a-b):</p> <p>a. commutative property of multiplication, e.g., given <math>4 \times 6</math>, the student says: I know that <math>4 \times 6</math> is 24 because I know <math>6 \times 4</math> is 24 and multiplying in any order gets the same answer;</p>	<p>Topic 5: 106C, 106E, 107, 110A-112, 113A-113B, 114A, 134, 135A</p>
<p>b. zero property of multiplication without computing, e.g., <math>7 \times 3 \times 4 \times 0 \times 5 = \square</math>, the student says: I know the answer (product) is zero because no matter how many factors you have, when you multiply with a 0, the product is zero;</p>	<p>Topic 5: 106E, 107, 130A-131B, 134, 136</p>

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<p>c. associative property of addition, e.g., <math>9 + 8</math> could be solved as <math>1 + (8 + 8)</math> or <math>(1 + 8) + 8</math>, the student says: I don't know <math>9 + 8</math>, but I know my doubles <math>(8 + 8)</math>, so I made the 9 into <math>1 + 8</math> and added <math>8 + 8</math> and then added 1 more to make 17.</p>	<p><b>Topic 2:</b> 30B, 30E, 31, 32A-33B, 34A, 36-39B  <b>Topic 4:</b> 95</p>

**Benchmark 3: Estimation** – The student uses computational estimation with whole numbers, fractions, and money in a variety of situations.

Grade Three Application Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p>The student...</p> <p>1. adjusts original whole number estimate of a real-world problem using numbers from 0 through 1,000 based on additional information (a frame of reference) (2.4.A1a) (\$), e.g., if given a pint container and told the number of marbles it has in it, the student would estimate the number of marbles in a quart container.</p>	<p><b>Topic 2:</b> 40-42, 44-46, 48, 54  <b>Topic 3:</b> 74-75, 79  <b>Topic 4:</b> 91  <b>Topic 6:</b> 146  <b>Topic 8:</b> 185  <b>Topic 9:</b> 215, 221  <b>Topic 18:</b> 414-415, 419  <b>Topic 19:</b> 438-439, 445</p>

Grade Three Application Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p><b>2. estimates to check whether or not the result of a real-world problem using whole numbers from 0 through 1,000 and monetary amounts through \$500 is reasonable and makes predictions based on the information (2.4.A1a-b,d) (\$), e.g., at the movies, you bought popcorn for \$2.35 and a soda for \$2.50; and then paid \$4.50 for a ticket. Is it reasonable to say you spent \$10? How much will you need to save to go to the movies once a week for the next month?</b></p>	<p><b>Topic 2:</b> 40-42, 44-46, 48, 54  <b>Topic 3:</b> 74-75, 79  <b>Topic 4:</b> 91  <b>Topic 6:</b> 146  <b>Topic 8:</b> 185  <b>Topic 9:</b> 215, 221  <b>Topic 18:</b> 414-415, 419  <b>Topic 19:</b> 438-439, 445</p>
<p><b>3. selects a reasonable magnitude from three given quantities based on a familiar problem situation and explains the reasonableness of the results (2.4.A1a), e.g., about how many students are in my class today – 2, 20, 200?</b></p>	<p><b>Topic 2:</b> 40-42, 44-46, 48, 54  <b>Topic 3:</b> 74-75, 79  <b>Topic 4:</b> 91  <b>Topic 6:</b> 146  <b>Topic 8:</b> 185  <b>Topic 9:</b> 215, 221  <b>Topic 18:</b> 414-415, 419  <b>Topic 19:</b> 438-439, 445</p>
<p><b>4. determines if a real-world problem with whole numbers from 0 through 1,000 calls for an exact or approximate answer and performs the appropriate computation using various computational methods including mental math, paper and pencil, concrete objects, and appropriate technology (2.4.A1a) (\$).</b></p>	<p><b>Topic 2:</b> 40-42, 44-46, 48, 54  <b>Topic 3:</b> 74-75, 79  <b>Topic 4:</b> 91  <b>Topic 6:</b> 146  <b>Topic 8:</b> 185  <b>Topic 9:</b> 215, 221  <b>Topic 18:</b> 414-415, 419  <b>Topic 19:</b> 438-439, 445</p>



**Benchmark 4: Computation** – The student models, performs, and explains computation with whole numbers and money including the use of concrete objects in a variety of situations.

Grade Three Application Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p>The student...</p> <p>1. <b>▲ N solves one-step real-world addition or subtraction problems with (\$):</b></p> <p>a. <b>whole numbers from 0 through 10,000 (2.4.A1a-b), e.g., for the food drive, the school collected 564 cans (cylinders) and 297 boxes (rectangular prisms). How many items did they collect in all? This problem could be solved with base 10 models: by adding <math>500 + 200</math> (700), <math>60 + 90</math> (150), and <math>4 + 7</math> (11), so <math>700 + 150 + 11 = 861</math>; by adding <math>564 + 300</math> (864) and 297 is 3 less than 300, so <math>864 - 3 = 861</math>; or by using the traditional algorithm;</b></p>	<p><b>Topic 2:</b> 30A-30F, 30-31, 32A-33B, 34A-35B, 36A-39B, 48A-49B, 50A-53B, 54A-55B, 56A-57B, 60-62  <b>Topic 3:</b> 64A-64F, 64-65, 66A-67B, 68A-71B, 72A-73B</p>
<p>b. <b>monetary amounts using dollar and cents notation through \$500.00 (2.4.A1a-b,d), e.g., you are shopping for a new bicycle; at The Bike Store, the bike you want is \$189.69 and at Sports for All, it is \$162.89. How much will you save by buying the bike at Sports for All?</b></p>	<p><b>Topic 1:</b> 22A-23B  <b>Topic 13:</b> 304B, 304D-304F, 304-305, 307, 308A-311B, 312A-315B, 316-317, 320-321, 322-324</p>
<p>2. <b>N generates a family of multiplication and division facts through the 5s (2.4.A1a), e.g., if the student writes <math>5 \times 9 = 45</math>, the remaining facts generated are: <math>9 \times 5 = 45</math>, <math>45 \div 5 = 9</math>, <math>45 \div 9 = 5</math>.</b></p>	<p><b>Topic 8:</b> 182A-182F, 182-183, 184A-185B, 186A-187, 189A-189B, 190A-191B, 192A-193B, 200-203C</p>

**Standard 2: Algebra** – The student uses algebraic concepts and procedures in a variety of situations.

**Benchmark 1: Patterns** – The student recognizes, describes, extends, develops, and explains relationships in patterns using concrete objects in a variety of situations.

Grade Three Application Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p><b>The student...</b></p> <p><b>1. generalizes the following patterns using a written description:</b></p> <p><b>a. counting numbers related to number theory (2.4.A1a);</b></p>	<p><b>Topic 1:</b> 15  <b>Topic 5:</b> 106B, 122A-123, 124, 125B (Intervention), 126A, 127B (Reteaching), 128A, 129  <b>Topic 9:</b> 204A-204C, 204, 208A-209B, 210A (Daily Spiral Review), 228, 230</p>
<p><b>b. whole number patterns (2.4.A1a) (\$),</b></p>	<p><b>Topic 1:</b> 15  <b>Topic 5:</b> 122A-123, 124, 125B (Intervention), 126A, 127B (Reteaching), 128A, 129  <b>Topic 9:</b> 204A-204C, 204, 208A-209B, 210A (Daily Spiral Review), 212A-213, 214-215, 215A-215B</p>
<p><b>c. patterns using geometric shapes (2.4.A1f),</b></p>	<p><b>Topic 9:</b> 218A-219, 220-221, 221A-221B, 228-230  <b>Topic 10:</b> 238A (Daily Spiral Review), 247, 252A (Daily Spiral Review)  <b>Topic 12:</b> 290A (Daily Spiral Review)</p>
<p><b>d. measurement patterns (2.4.A1a),</b></p>	<p><b>Topic 14:</b> 339B (Enrichment)  <b>Topic 15:</b> 350A (margin notes), 352, 354, 355A-355B, 360A-361B, 362-365</p>
<p><b>e. money and time patterns (2.4.A1a,d) (\$),</b></p>	<p><b>Topic 1:</b> 18A-19, 21A-21B, 22B-23B, 24A, 28  <b>Topic 17:</b> 390E, 391, 392B, 398A-398, 399B (Enrichment)</p>

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f. patterns using size, shape, color, texture, or movement (2.4.A1a).	<b>Topic 9:</b> 205, 218A-219, 220-221, 221A-221B, 228-230 <b>Topic 10:</b> 238A (Daily Spiral Review), 247, 252A (Daily Spiral Review)
2. ▲ recognizes multiple representations of the same pattern (2.4.A1a) e.g., the ABC pattern could be represented by clap, snap, stomp, ...; red, green, yellow, ...; tricycle, bicycle, unicycle, ...; or 3, 2, 1, ...	<b>Topic 5:</b> 122A-123, 124, 125B (Intervention), 126A, 129 <b>Topic 9:</b> 204A-204C, 204, 208A-209B, 212A-213, 214-215, 215A-215B, 218A-219, 220-221, 221A-221B, 228-230

**Benchmark 2: Variables, Equations, and Inequalities** – The student uses symbols and whole numbers to solve equations including the use of concrete objects in a variety of situations.

Grade Three Application Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p>The student...</p> <p>1. represents real-world problems using symbols with one operation and one unknown that (2.4.A1a) (\$):</p> <p>a. adds or subtracts using whole numbers from 0 through 99, e.g., when asked to represent the number of 3<sup>rd</sup> graders in a school, students write: <math>21 + 18 + 19 = \square</math>;</p>	<p><b>Topic 2:</b> 32-33  <b>Topic 3:</b> 66-67, 70-71  <b>Topic 4:</b> 94-95  <b>Topic 5:</b> 108-109  <b>Topic 8:</b> 192A (Daily Spiral Review), 200, 203A</p>
<p>b. multiplies or divides using the basic facts through the 5s and the basic facts of the 10s, e.g., juice comes in packs of 4. How many packs are needed for 32 third-graders? Students could write: <math>32 \div 4 = J</math>.</p>	<p><b>Topic 5:</b> 108-109  <b>Topic 7:</b> 164  <b>Topic 8:</b> 184A-185B, 189B, 192A (Daily Spiral Review), 201A  <b>Topic 18:</b> 425</p>

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<p><b>2. generates one-step equations to solve real-world problems with one unknown and a whole number solution that (2.4.A1a) (\$):</b></p> <p><b>a. adds or subtracts using the basic fact families, e.g., when asked to generate a simple equation, a student says: I have 5 dogs and 2 fish. How many pets do I have? This is represented by <math>5 + 2 = P</math> and to solve for P, add 5 and 2, <math>P = 7</math>.</b></p>	<p><b>Topic 2:</b> 32-33  <b>Topic 3:</b> 66-67, 70-71  <b>Topic 4:</b> 94-95  <b>Topic 5:</b> 108-109  <b>Topic 8:</b> 192A (Daily Spiral Review), 200, 203A</p>
<p><b>b. multiplies or divides using the basic facts through the 5s and the basic facts of the 10s, e.g., Tom has a sticker book and each page holds 5 stickers. If the same number of stickers is placed on each page, the book will hold 30 stickers. How many pages are in his book? This is represented by <math>5 \times S = 30</math> or <math>30 \div 5 = S</math>.</b></p>	<p><b>Topic 5:</b> 108-109  <b>Topic 7:</b> 164  <b>Topic 8:</b> 184A-185B, 189B, 192A (Daily Spiral Review), 201A  <b>Topic 18:</b> 425</p>
<p><b>3. generates (2.4.A1a) (\$):</b></p> <p><b>a. a real-world problem with one operation that matches a given addition equation or subtraction equation using whole numbers from 0 through 99, e.g., given the subtraction equation, <math>69 - G = 37</math>, the problem could be written: You have 69 guppies and give away some to a friend and have 37 left. How many guppies did you give away?</b></p>	<p><b>Topic 2:</b> 30A-30F, 30-31, 32A-33B, 34A-35B, 36A-39B, 48A-49B, 50A-53B, 54A-55B, 56A-57B, 60-62  <b>Topic 3:</b> 64A-64F, 64-65, 66A-67B, 68A-71B, 72A-73B</p>

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<p><b>b. a real-world problem with one operation that matches a given multiplication equation or division equation using basic facts through the 5s and the basic facts of the 10s, e.g., the problem could be: I have 25 pictures and glue 5 pictures on each page of my album. How many pages will I need to use? The equation: <math>25/5 = \Delta</math>.</b></p>	<p><b>Topic 5:</b> 108A-109B, 110A-113B, 114A-115B, 116A-117B, 122A-125B, 126A-127B, 128A-129B, 130A-131B  <b>Topic 6:</b> 140A-141B, 142A-143B, 148A-149B  <b>Topic 7:</b> 170A-171B  <b>Topic 8:</b> 184A-185B, 190A-191B, 192A-193B</p>
<p><b>c. number comparison statements using equality and inequality symbols (<math>=</math>, <math>&lt;</math>, <math>&gt;</math>) for whole numbers from 0 through 100, measurement, and money \$, e.g. 4 ft 4 in <math>&gt;</math> 4 ft 2 in.</b></p>	<p><b>Topic 1:</b> 2B, 12A-15B, 16A-17B, 18A (Daily Spiral Review), 22A (Daily Spiral Review), 26, 28  <b>Topic 2:</b> 43  <b>Topic 5:</b> 114A-115B, 124, 131  <b>Topic 8:</b> 189  <b>Topic 9:</b> 222A-223B  <b>Topic 13:</b> 315  <b>Topic 18:</b> 424</p>

**Benchmark 3: Functions** – The student recognizes and describes whole number relationships using concrete objects in a variety of situations.

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<p><b>The student...</b></p> <p><b>1. represents and describes mathematical relationships between whole numbers from 0 through 100 using concrete objects, pictures, written descriptions, symbols, equations, tables, and graphs (2.4.A1a) (\$).</b></p>	<p><b>Topic 9:</b> 205, 210B-211B, 212A-213, 214-215, 215A-215B, 218A-219, 220-221, 221A-B, 227, 228-231  <b>Topic 12:</b> 298B-299B, 302, 303A  <b>Topic 17:</b> 402A (Daily Spiral Review)  <b>Topic 20:</b> 483 (#14)</p>

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2. finds the rule, states the rule using words, and extends numerical patterns with whole numbers from 0 through 100 (2.4.A1a,e), e.g., at school each student must check out three library books. After the tenth student has checked out, how many total books will have been checked out? A solution using a function table might be:

<b>Number of Students</b>	<b>1</b>	<b>2</b>	<b>5</b>	<b>10</b>
<b>Total Number Of Books</b>	<b>3</b>	<b>6</b>	<b>15</b>	<b>?</b>

The rule could be that for every student, add three books or multiply the number of children by three to get the total number of books. Other solutions might be using a pattern to count by three ten times - 3, 6, 9, 12, 15, 18, 21, 24, 27, 30 - or skip count by three ten times.

- Topic 9:** 205, 210B-211B, 212A-213, 214-215, 215A-215B, 218A-219, 220-221, 221A-B, 227, 228-231  
**Topic 12:** 298B-299B, 302, 303A  
**Topic 17:** 402A (Daily Spiral Review)  
**Topic 20:** 483 (#14)

**Benchmark 4: Models** – The student develops and uses mathematical models including the use of concrete objects to represent and show mathematical relationships in a variety of situations.

Grade Three Application Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p>The student...</p> <p>1. recognizes that various mathematical models can be used to represent the same problem situation. Mathematical models include:</p> <p>a. process models (concrete objects, pictures, number lines, coordinate planes/grids, hundred charts, measurement tools, multiplication arrays, or division sets) to model computational procedures and mathematical relationships and to model problem situations (1.2.A1, 1.2.A2a-b, 1.3.A1-4, 1.4.A1a-b, 1.4.A2, 2.1.A1a-b, 2.1.A1d-f, 2.1.A2, 2.2.A1-3, 2.2.A3a-c, 2.3.A1-2, 3.2.A1-3, 3.3.A1-2, 3.4.A1, 4.2.A2) (\$);</p>	<p>Topic 1: 4-5            Topic 2: 32-33, 34-35, 49, 50-52            Topic 5: 110-111, 112-113, 125            Topic 11: 268-269            Topic 12: 290A-293B            Topic 14: 332-333, 342-343            Topic 16: 382-383            Topic 18: 416-417            Topic 20: 468A-471B</p>
<p>b. place value models (place value mats, hundred charts, base ten blocks, or unifix cubes) to compare, order, and represent numerical quantities and to model computational procedures (1.1.A1a, 1.1.A2a, 1.2.A1-2, 1.3.A2, 1.4.A1a-b) (\$);</p>	<p>Topic 1: 2A-2H, 2-3, 4A-5B, 6A-7B, 8A-9B, 10A-11B, 12A-15B, 16A-17B, 26A, 26-28            Topic 2: 48A-49B, 50A-52B            Topic 13: 306A-307B            Topic 18: 412-413            Topic 19: 436B-437A</p>
<p>c. fraction models (fraction strips or pattern blocks) and decimal models (base ten blocks or coins) to compare, order, and represent numerical quantities (1.1.A2b) (\$);</p>	<p>Topic 12: 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            Topic 13: 304C, 306A-307B</p>

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d. money models (base ten blocks or coins) to compare, order, and represent numerical quantities (1.1.A1b, 1.1.A2c, 1.2.A1, 1.3.A2, 1.4.A1b, 2.1.A1e, 2.2.A3c) (\$);	<b>Topic 1:</b> 18A-21B, 22A-23B, 26-29 <b>Topic 10:</b> 240 <b>Topic 13:</b> 304E, 304-305, 308-309, 311, 311B, 312B
e. function tables (input/output machines, T-tables) to model numerical relationships (2.3.A2) (\$);	<b>Topic 9:</b> 205, 210B-211B, 212A-213, 214-215, 215A-215B, 218A-219, 220-221, 221A-B, 227, 228-231 <b>Topic 12:</b> 298B-299B, 302, 303A <b>Topic 17:</b> 402A (Daily Spiral Review) <b>Topic 20:</b> 483 (#14)
f. two-dimensional geometric models (geoboards, dot paper, pattern blocks, or tangrams) to model perimeter, area, and properties of geometric shapes and three-dimensional geometric models (solids) and real-world objects to compare size and to model attributes of geometric shapes (2.1.A1c, 3.1.A1-3);	<b>Topic 10:</b> 232B, 232D-232E, 232-233, 241, 246A-247B, 248A-249B, 250A-251B, 252A-253B, 254-256 <b>Topic 11:</b> 258A-258F, 258-259, 260A-263B, 264A-265B, 266A-267B, 268A-269B
g. two-dimensional geometric models (spinners), three-dimensional models (number cubes), and process models (concrete objects) to model probability (4.1.A1-2) (\$);	<b>Topic 20:</b> 456B, 456D, 472A-475B, 476A-477B, 478A-481B, 484-488
h. graphs using concrete objects, representational objects, or abstract representations pictographs, frequency tables, horizontal and vertical bar graphs, Venn diagrams or other pictorial displays, line plots, charts and tables to organize and display data (4.1.A1-2, 4.2.A1a-d, 4.2.A1f-g, 4.2.A3) (\$);	<b>Topic 5:</b> 121 <b>Topic 20:</b> 456A-456F, 456-457, 458A-459B, 460A-463B, 464A-465B, 466A-467B, 468A-471B, 472A, 476A, 478A-481B, 482A-483B, 484-488
i. Venn diagrams to sort data and show relationships.	<b>Topic 5:</b> 121



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<p><b>2. selects a mathematical model that is more useful than other mathematical models in a given situation.</b></p>	<p><b>Topic 1:</b> 4-5  <b>Topic 2:</b> 32-33, 34-35, 49, 50-52  <b>Topic 5:</b> 110-111, 112-113, 125  <b>Topic 11:</b> 268-269  <b>Topic 12:</b> 290A-293B  <b>Topic 14:</b> 332-333, 342-343  <b>Topic 16:</b> 382-383  <b>Topic 18:</b> 416-417  <b>Topic 20:</b> 468A-471B</p>

**Standard 3: Geometry** – The student uses geometric concepts and procedures in a variety of situations.

**Benchmark 1: Geometric Figures and Their Properties** – The student recognizes geometric shapes and investigates their properties using concrete objects in a variety of situations.

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<p><b>The student...</b></p> <p><b>1. solves real-world problems by applying properties of plane figures (circles, squares, rectangles, triangles, ellipses) to (2.4.A1f), e.g., the teacher asked each student to draw a rectangle. A student draws a square. Did the student follow directions? Why or why not?</b></p>	<p><b>Topic 10:</b> 232B, 232D-232E, 232-233, 241, 246A-247B, 248A-249B, 250A-251B, 252A-253B, 254-256  <b>Topic 11:</b> 258A-258F, 258-259, 260A-263B, 264A-265B, 266A-267B, 268A-269B</p>

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<p><b>2. demonstrates how (2.4.A1f):</b></p> <p><b>a. plane figures (circles, squares, rectangles, triangles, ellipses, rhombi, hexagons, trapezoids) can be combined to make a new shape;</b></p>	<p><b>Topic 10:</b> 232D  <b>Topic 11:</b> 264A-265B, 266A-267B, 268A-269B  <b>Topic 12:</b> 274A, 274C-274D, 275, 276A-277B, 278A-279B, 280A, 282A-283B, 284A-285, 286-287, 287B, 288A-289B</p>
<p><b>b. solids (cubes, rectangular prisms, cylinders, cones, spheres) can be combined to make a new shape.</b></p>	<p><b>Topic 10:</b> 232A, 232C, 232-233, 234A-235, 236-237, 237A-237B, 238A-239, 240-241, 241A-241B, 254-257</p>
<p><b>3. identifies the plane figures (circles, squares, rectangles, triangles, ellipses, rhombi, hexagons, trapezoids) used to form a composite figure (2.4.A1f).</b></p>	<p><b>Topic 10:</b> 232D  <b>Topic 11:</b> 264A-265B, 266A-267B, 268A-269B  <b>Topic 12:</b> 274A, 274C-274D, 275, 276A-277B, 278A-279B, 280A, 282A-283B, 284A-285, 286-287, 287B, 288A-289B</p>

**Benchmark 2: Measurement and Estimation** – The student estimates and measures using standard and nonstandard units of measure with concrete objects in a variety of situations.

Grade Three Application Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p>The student...</p> <p>1. solves real-world problems by applying appropriate measurements:</p>	
<p>a. ▲ length to the nearest inch, foot, or yard, e.g., Jill has a piece of rope that is 36 inches long and Bob has a piece that is 15 inches long. If they put their pieces together, how long would the piece of rope be?</p>	<p><b>Topic 14:</b> 326A-326F, 326-327, 328A-331B, 332A-333B, 334A-337B, 344-346</p>
<p>b. ▲ length to the nearest centimeter or meter, e.g., a new pencil is about how many centimeters long?</p>	<p><b>Topic 15:</b> 348A-348F, 348-349, 350A-351B, 352A-355B, 360-361, 362-364</p>
<p>c. length to the nearest whole unit of a nonstandard unit, e.g., how many paper clips long is a hot dog?</p>	<p>Grade 3 students use customary and metric standard units to measure length, as referenced above. In the following example, students use paperclips to measure the perimeter of a rectangle.  <b>Topic 16:</b> 366C</p>
<p>d. temperature to the nearest degree, e.g., what would the temperature outside be if it was a good day for swimming?</p>	<p><b>Topic 17:</b> 390D, 390-391, 402A-403B, 406-409</p>
<p>e. ▲ number of days in a week, e.g., if school started 37 weeks ago, how many days of school have passed?</p>	<p><b>Topic 17:</b> 398A-399B, 406-408</p>

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<p><b>2. estimates to check whether or not measurements or calculations for length, temperature, and time in real-world problems are reasonable (2.4.A1a) (\$), e.g., after finding the range of temperature over a two-week period, determine whether or not the answer is reasonable.</b></p>	<p><b>Topic 14:</b> 328A-329, 330, 331A-331B, 334A-334, 336, 337B, 344-347  <b>Topic 15:</b> 350A-351B, 352B, 355B</p>
<p><b>3. adjusts original measurement or estimation for length, weight, temperature, and time in real-world problems based on additional information (a frame of reference) (2.4.A1a) (\$), e.g., the class estimates that the class gerbil weighs as much as a box of 24 crayons. The gerbil is placed on one side of the pan balance and a box of 16 crayons is placed on the other side. The pan balance barely moves. Should the estimate of the gerbil’s weight be adjusted?</b></p>	<p><b>Topic 14:</b> 328A-329, 330, 331A-331B, 334A-334, 336, 337B, 344-347  <b>Topic 15:</b> 350A-351B, 352B, 355B</p>

**Benchmark 3: Transformational Geometry** – The student recognizes and performs one transformation on simple shapes or concrete objects in a variety of situations.

Grade Three Application Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p>The student...</p> <p>1. recognizes real-world transformations (reflection/flip, rotation/turn, and translation/slide) (2.4.A1a), e.g., tiles in a ceiling, bricks in a sidewalk, or steps on a playground slide.</p>	<p><b>Topic 11:</b> 258B, 258E-258F, 259, 260A-261, 263, 263A-263B, 270-272</p>
<p>2. gives and uses directions to move from one location to another on a map and follows directions including the use of cardinal and intermediate points (2.4.A1a).</p>	<p>Grade 3 students locate points on coordinate grids and analyze line graphs.  <b>Topic 20:</b> 468A-469, 470-471, 471A-471B, 484-487, 487D</p>

**Benchmark 4: Geometry From An Algebraic Perspective** – The student relates geometric concepts to a number line and the first quadrant of a coordinate plane in a variety of situations.

Grade Three Application Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p>The student...</p> <p>1. solves real-world problems using coordinate planes (coordinate grids) and map grids that have positive whole number and letter coordinates (2.4.A1a), e.g., identifying locations on a map or giving and following directions to move from one location to another.</p>	<p>Grade 3 students locate points on coordinate grids and analyze line graphs.  <b>Topic 20:</b> 468A-469, 470-471, 471A-471B, 484-487, 487D</p>

**Standard 4: Data** – The student uses concepts and procedures of data analysis in a variety of situations.

**Benchmark 1: Probability** – The student applies the concepts of probability to draw conclusions and to make predictions and decisions including the use of concrete objects in a variety of situations.

Grade Three Application Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p>The student...</p> <p>1. makes predictions about a simple event in an experiment or simulation; conducts the experiment or simulation including the use of concrete objects; records the results in a chart, table, or graph; and uses the results to draw conclusions about the event</p>	<p><b>Topic 20:</b> 456B, 456D, 472A-475B, 476A-477B, 478A-481B, 484-488</p>
<p>2. compares what should happen (theoretical probability/expected results) with what did happen (experimental probability/empirical results) in an experiment or simulation with a simple event (2.4.A1g).</p>	<p><b>Topic 20:</b> 456B, 456D, 472A-475B, 476A-477B, 478A-481B, 484-488</p>

**Benchmark 2: Statistics** – The student collects, organizes, displays, explains, and interprets numerical (whole numbers) and non-numerical data sets including the use of concrete objects in a variety of situations.

Grade Three Application Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p>The student...</p> <p>1. interprets and uses data to make reasonable inferences and predictions, answer questions, and make decisions from these data displays (2.4.A1h) (\$):</p> <p>a. graphs using concrete objects;</p>	<p>Grade 3 students use a variety of graphs and data displays, including pictographs, bar graphs, line graphs, line plots, and Venn diagrams.</p> <p><b>Topic 5:</b> 121</p> <p><b>Topic 20:</b> 456A-456F, 456-457, 458A-459B, 460A-463B, 464A-465B, 466A-467B, 468A-471B, 472A, 476A, 478A-481B, 482A-483B, 484-488</p>
<p>b. pictographs with a whole symbol or picture representing one, two, five, ten, twenty-five, or one-hundred (no partial symbols or pictures);</p>	<p><b>Topic 20:</b> 456A-456F, 456-457, 460A-463B, 464A-465B, 484-488</p>
<p>c. frequency tables (tally marks);</p>	<p><b>Topic 20:</b> 456A-456F, 456-457, 458A-459B, 472B, 475, 476A (Daily Spiral Review), 476B, 482B-483, 483B, 484-488</p>
<p>d. horizontal and vertical bar graphs;</p>	<p><b>Topic 20:</b> 456A-456F, 456-457, 460A-463B, 466-467, 482A-483B, 484-488</p>
<p>e. Venn diagrams or other pictorial displays;</p>	<p><b>Topic 5:</b> 121</p>
<p>f. line plots;</p>	<p><b>Topic 20:</b> 478A-479, 480-481, 481A-481B, 484-487</p>

Grade Three Application Indicators	Scott Foresman – Addison Wesley enVisionMATH
<p><b>g. charts and tables.</b></p>	<p><b>Topic 9:</b> 205, 210B-211B, 212A-213, 214-215, 215A-215B, 218A-219, 220-221, 221A-B, 227, 228-231  <b>Topic 12:</b> 298B-299B, 302, 303A  <b>Topic 17:</b> 402A (Daily Spiral Review)  <b>Topic 20:</b> 456A-456F, 456-457, 458A-459B, 472B, 475, 476A (Daily Spiral Review), 476B, 482B-483, 483B, 484-488</p>
<p><b>2. uses these statistical measures with a data set of less than ten data points using whole numbers from 0 through 1,000 to make reasonable inferences and predictions, answer questions, and make decisions (2.4.A1a) (\$):</b>  <b>a. minimum and maximum data values,</b></p>	<p><b>Topic 20:</b> 456A-456F, 456-457, 458A-459B, 460A-463B, 464A-465B, 466A-467B, 468A-471B, 472A, 476A, 478A-481B, 482A-483B, 484-488</p>
<p><b>b. range,</b></p>	<p><b>Topic 20:</b> 460A (Daily Spiral Review, #1)</p>
<p><b>c. mode,</b></p>	<p><b>Topic 20:</b> 456A-456F, 456-457, 458A-459B, 460A-463B, 464A-465B, 466A-467B, 468A-471B, 472A, 476A, 478A-481B, 482A-483B, 484-488</p>
<p><b>d. median when data set has an odd number of data points.</b></p>	<p>Grade 3 students analyze graphs and other data displays to determine minimum and maximum data values, differences between data values, and most frequent data values.  <b>Topic 20:</b> 456A-456F, 456-457, 458A-459B, 460A-463B, 464A-465B, 466A-467B, 468A-471B, 472A, 476A, 478A-481B, 482A-483B, 484-488</p>
<p><b>3. recognize that the same data set can be displayed in various formats including the use of concrete objects (2.4.A1h) (\$)</b></p>	<p><b>Topic 5:</b> 121  <b>Topic 20:</b> 456A-456F, 456-457, 458A-459B, 460A-463B, 464A-465B, 466A-467B, 468A-471B, 472A, 476A, 478A-481B, 482A-483B, 484-488</p>