



Math Connects

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| STANDARDS | PAGE REFERENCES |
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| <p>Standard 1: Number and Computation</p> | |
| <p>Standard 1: Number and Computation – The student uses numerical and computational concepts and procedures in a variety of situations.</p> | |
| <p>Benchmark 1: Number Sense – The student demonstrates number sense for whole numbers, fractions, and money using concrete objects in a variety of situations.</p> | |
| <p>1. knows, explains, and represents whole numbers from 0 through 100 using concrete objects (2.4.K1a) (\$).</p> | <p>Student Edition: 23-26, 27-28, 29-30, 243-244, 245-246, 249-252, 429-432, 433-434 <i>Chapter Review</i> 44, 269 <i>Mid-Chapter Check</i> 31, 253, 437-438 <i>Spiral Review</i> 32 <i>Tech Link</i> 435-436 <i>Test Practice</i> 45-46</p> <p>Teacher Edition: CCL 83G(A), 239G(A); FMB 23A, 27A, 29A, 243A, 245A, 249A, 429A, 433A</p> |

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| <p>2. compares and orders (\$):</p> <p>a. whole numbers from 0 through 100 using concrete objects (2.4.K1a),</p> <p>b. fractions with like denominators (halves and fourths) using concrete objects (2.4.K1a,c).</p> | <p>Student Edition:</p> <p>35-36, 39-40, 249-250, 251-252, 443-444, 445-446, 454, 457-458, 461-462, 463-464, 469-470</p> <p><i>Chapter Project</i> 455</p> <p><i>Chapter Review</i> 44, 450, 477</p> <p><i>Game Time</i> 38, 466</p> <p><i>Mid-Chapter Check</i> 253, 467</p> <p><i>Problem Solving</i> 447, 475</p> <p><i>Start Smart</i> 3-4</p> <p><i>Test Practice</i> 46 #7-#10, 479-480</p> <p>Teacher Edition:</p> <p>A 40; ATS 446 #2; CCL 13H(LA), 453 G(A)(LA), 453 H(H); FMB 35A, 39A, 249A, 445A, 461A, 463A, 469A</p> |
| <p>3. recognizes a whole, a half, and a fourth and represents equal parts of a whole (halves, fourths) using concrete objects, pictures, diagrams, fraction strips, or pattern blocks (2.4.K1a,c) (\$).</p> | <p>Student Edition:</p> <p>453-454, 457-458, 461-462, 463-464</p> <p><i>Chapter Project</i> 455</p> <p><i>Chapter Review</i> 477-478</p> <p><i>Extra Practice</i> 465</p> <p><i>Game Time</i> 466</p> <p><i>Problem Solving</i> 475-476</p> <p><i>Problem-Solving Strategy</i> 459-468</p> <p>Teacher Edition:</p> <p>A 458; CCL 453G, 453H; FMB 457A, 461A, 463A; 5MC 463A</p> |
| <p>4. identifies and uses ordinal numbers first (1st) through tenth (10th) (2.4.K1a).</p> | <p>Student Edition:</p> <p><i>Problem-Solving Projects</i> P11-P14</p> <p><i>Problem-Solving Strategy</i> 127-128</p> <p>Teacher Edition:</p> <p>A 252; CP 455; FMB 23A; I 127</p> |
| <p>5. identifies coins (pennies, nickels, dimes, quarters) and currency (\$1, \$5, \$10) and states the value of each coin and each type of currency using money models (2.4.K1d) (\$).</p> | <p>Student Edition:</p> <p>351-352, 353-354, 355-356, 365-366</p> <p><i>Chapter Project</i> 349</p> <p><i>Chapter Review</i> 377</p> <p><i>Concepts and Skills Bank</i> CS3</p> <p><i>Glossary</i> G3, G7, G17, G20</p> <p>Teacher Edition:</p> <p>CCL 347G(SS); FMB 351A, 353A, 355A, 365A</p> |

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| 6. recognizes and counts a like group of coins (pennies, nickels, dimes) (2.4.K1d) (\$). | Student Edition: 348, 351-352, 353-354, 365-366 <i>Concepts and Skills Bank CS3</i> Teacher Edition: CCL 347G(R)(SS); FMB 351A, 353A, 365A |
| Benchmark 2: Number Systems and Their Properties – The student demonstrates an understanding of whole numbers with a special emphasis on place value in a variety of situations. | |
| 1. reads and writes whole numbers from 0 through 100 in numerical form (\$). | Student Edition: 23-26, 27-28, 29-30, 243-244, 245-246, 249-252, 429-432, 433-434 <i>Chapter Review 44, 269</i> <i>Mid-Chapter Check 31, 253, 437</i> <i>Spiral Review 32</i> <i>Tech Link 435-436</i> <i>Test Practice 45-46</i> Teacher Edition: CCL 83G(A), 239 G(A)(LA); FMB 23A, 27A, 29A, 243A, 245A, 249A, 429A, 433A |
| 2. represents whole numbers from 0 through 100 using various groupings and place value models (place value mats, hundred charts, or base ten blocks) emphasizing ones, tens, and hundreds (2.4.K1b) (\$), e.g., how many groups of tens are there in 32 or how many groups of tens and ones in 62? | Student Edition: 23-30, 243-244, 245-246, 249-252 <i>Chapter Review 269</i> <i>Looking Ahead LA5</i> <i>Mid-Chapter Check 253</i> <i>Problem Solving 267-268</i> Teacher Edition: CCL 239G; FMB 243A, 245A, 259A |
| 3. counts subsets of whole numbers from 0 through 100 both forwards and backwards (2.4.K1a) (\$). | Student Edition: 39-40, 245-246, 249-252 <i>Mid-Chapter Check 253</i> Teacher Edition: FMB 245A, 249A; T 249 |
| 4. writes in words whole numbers from 0 through 10. | Student Edition: 23-26 <i>Mid-Chapter Check 31</i> <i>Spiral Review 32</i> Teacher Edition: T 23 |

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| 5. identifies the place value of the digits in whole numbers from 0 through 100 (2.4.K1b) (\$). | Student Edition: 416, 419-422, 423-424, 429-432, 433-434, 443-444 <i>Chapter Review</i> 449 <i>Extra Practice</i> 425 <i>Mid-Chapter Check</i> 437 <i>Problem-Solving Strategy</i> 427-428 <i>Tech Link</i> 435-436 Teacher Edition: CCL 415G(LA); FMB 419A, 423A, 429A, 443A |
| 6. identifies any whole number from 0 through 30 as even or odd (2.4.K1a). | Student Edition: 263-264 <i>Chapter Review</i> 270 #16-#17 Teacher Edition: FMB 263A |
| 7. uses the concepts of these properties with whole numbers from 0 through 100 and demonstrates their meaning using concrete objects (2.4.K1a) (\$): a. commutative property of addition, e.g., $3 + 2 = 2 + 3$, b. zero property of addition (additive identity), e.g., $4 + 0 = 4$. | Student Edition: 59-60, 67-68, 155-156 <i>Chapter Review</i> 79 <i>Mid-Chapter Check</i> 63, 167 Teacher Edition: CCL 151G(A); FMB 59A, 155A; FP 151A(G1-FP6C); LV 161A |
| Benchmark 3: Estimation – The student uses computational estimation with whole numbers in a variety of situations. | |
| 1. estimates whole number quantities from 0 through 100 using various computational methods including mental math, paper and pencil, concrete objects, and appropriate technology (2.4.K1a) (\$). | Student Edition: 255-256, 439-440, 495-496, 505-506 <i>Mid-Chapter Check</i> 497 #9 <i>Problem-Solving Investigation</i> 257 <i>Test Practice</i> 451 #5 Teacher Edition: A 256; CCL 481G(A); FMB 255A, 439A, 495A, 505A; 5MC 257A |
| 2. estimates to check whether or not results of whole number quantities from 0 through 100 are reasonable (2.4.K1a) (\$). | Student Edition: 255-256, 439-440, 495-496, 505-506 <i>Mid-Chapter Check</i> 497 #9 <i>Problem-Solving Investigation</i> 257, 503 <i>Test Practice</i> 451 #5 |

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| Benchmark 4: Computation – The student models, performs, and explains computation with whole numbers using concrete objects in a variety of situations. | |
| <p>1. computes with efficiency and accuracy using various computational methods including mental math, paper and pencil, concrete objects, and appropriate technology (2.4.K1a) (\$).</p> | <p>Student Edition: 51-52, 53-54, 55-56, 75-76, 89-90 <i>Chapter Review</i> 79 <i>Game Time</i> 58, 94 <i>Mid-Chapter Check</i> 63 <i>Problem Solving</i> 77-78 <i>Problem-Solving Investigation</i> 73-74, 105-106 <i>Start Smart</i> 2, 5, 6</p> <p>Teacher Edition: ATS 90; CCL 47H(R), 83G(H), 83H(S); CP 47H; FMB 51A, 53A, 55A, 75A, 89A</p> |
| <p>2. N states and uses with efficiency and accuracy basic addition facts with sums from 0 through 10 and corresponding subtraction facts (\$).</p> | <p>Student Edition: 53-54, 59-60, 65-66, 67-68, 69-72, 89-90, 101-102, 103-104, 107-110, 169-170, 195-196, 197-198, 199-200 <i>Chapter Review</i> 79, 115-116 <i>Mid-Chapter Check</i> 63 <i>Problem Solving</i> 77-78, 113-114</p> <p>Teacher Edition: CCL 83G(H); FMB 53A, 59A, 65A, 67A, 69A, 89A, 101A, 103A, 107A</p> |
| <p>3. skip counts by 2s, 5s, and 10s through 50 (2.4.K1a).</p> | <p>Student Edition: 259-260, 261-262 <i>Chapter Project</i> 241 <i>Chapter Review</i> 270 <i>Extra Practice</i> 265 <i>Spiral Review</i> 498 <i>Test Practice</i> 272 #7</p> <p>Teacher Edition: CCL 239H(H); FMB 259A, 261A</p> |
| <p>4. uses repeated addition (multiplication) with whole numbers to find the sum when given the number of groups (ten or less) and given the same number of concrete objects in each group (ten or less) (2.4.K1a), e.g., three plates of cookies with 10 cookies on each plate means $10 + 10 + 10 = 30$ cookies.</p> | <p>See <i>Math Connects 2</i> © 2009</p> <p>Student Edition: 473-474, 475-476, 479-480, 481-482</p> |

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| <p>5. uses repeated subtraction (division) with whole numbers when given the total number of concrete objects in each group to find the number of groups (2.4.K1a), e.g., there are 9 pencils. If each student gets 2 pencils, how many students get pencils? $9 - 2 - 2 - 2 - 2$ or 9 minus 2 four times means four students get 2 pencils each and there is 1 pencil left over. <i>or</i> There are 30 pieces of candy to put equally into five bowls, how many pieces of candy will be in each bowl? $30 - 5 - 5 - 5 - 5 - 5 - 5$ means there are six in each bowl.</p> | <p>See <i>Math Connects 2</i> © 2009</p> <p>Student Edition: 487-488, 489-490</p> |
| <p>6. performs and explains these computational procedures (2.4.K1a-b):</p> <p>a. adds whole numbers with sums through 99 without regrouping using concrete objects, e.g., 42 straws (bundled in 10s) + 21 straws (bundled in 10s) = 63 straws (bundled in 10s);</p> <p>b. subtracts two-digit whole numbers without regrouping using concrete objects, e.g., 63 cubes – 21 cubes = 42 cubes.</p> | <p>Student Edition: 487-488, 491-492, 499-500, 501-502 <i>Chapter Review</i> 509-510 <i>Extra Practice</i> 493 <i>Game Time</i> 494 <i>Mid-Chapter Check</i> 497 <i>Problem Solving</i> 507-508 <i>Problem-Solving Investigation</i> 503-504 <i>Test Practice</i> 511-512</p> <p>Teacher Edition: CCL 481G(LA); CP 483; FMB 487A, 491A, 499A, 501A</p> |
| <p>7. shows that addition and subtraction are inverse operations using concrete objects (2.4.K1a) (\$).</p> | <p>Student Edition: 101-102, 195-196, 197-198, 199-200, 331-332, 335-336 <i>Extra Practice</i> 201 <i>Tech Link</i> 337-338</p> <p>Teacher Edition: FMB 101A, 195A, 198A, 331A, 335A</p> |
| <p>8. reads and writes horizontally and vertically the same addition expression, e.g., $5 + 4$ is the same as $4 + 5$.</p> | <p>Student Edition: 75-76 <i>Chapter Review</i> 78 <i>Problem Solving</i> 77-78</p> <p>Teacher Edition: A 76; FMB 75A</p> |

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| Standard 2: Algebra | |
| 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. | |
| <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 Δ-Δ-O, Δ-Δ-O, ...;</p> <p>b. growing (extending) patterns, e.g., 1, 2, 3, ...</p> | <p>Student Edition: 14, 17-18, 19-20 <i>Chapter Review</i> 43 <i>Mid-Chapter Check</i> 31 <i>Problem-Solving Investigation</i> 33-34 <i>Problem-Solving Projects</i> P3-P6, P7-P10 <i>Problem-Solving Strategy</i> 21-22</p> <p>Teacher Edition: CCL 13G(M), 13H(A); CP 15; FMB 17A, 19A</p> |
| <p>2. uses the following attributes to generate patterns:</p> <p>a. counting numbers related to number theory (2.4.K1.a), e.g., evens, odds, or skip counting by 2s, 5s, or 10s;</p> <p>b. whole numbers that increase (2.4.K1a) (\$), e.g., 11, 21, 31, ... or like 2, 4, 6, ...;</p> <p>c. geometric shapes (2.4.K1f), e.g., \blacktriangle, \blacksquare, \diamond, \blacktriangle, \blacksquare, \diamond, ...;</p> <p>d. measurements (2.4.K1a), e.g., counting by inches or feet;</p> <p>e. the calendar (2.4.K1a), e.g., January, February, March, ...;</p> <p>f. money and time (2.4.K1d) (\$), e.g., 10¢, 20¢, 30¢, ... or 1:00, 1:30, 2:00, ...;</p> <p>g. things related to daily life (2.4.K1a), e.g., seasons, temperature, or weather;</p> <p>h. things related to size, shape, color, texture, or movement (2.4.K1a); e.g., tall-short, tall-short, tall-short, ...; or snapping fingers, clapping hands, or stomping feet (kinesthetic patterns).</p> | <p>Student Edition: 14, 17-18, 19-20, 213-214, 215-216, 217-218, 245-246, 259-260, 261-262, 263-264, 335-336 <i>Chapter Review</i> 270 <i>Extra Practice</i> 265 <i>Looking Ahead</i> LA11-LA12 <i>Problem Solving</i> 41-42 <i>Problem-Solving Projects</i> P3-P6, P7-P10 <i>Problem-Solving Strategy</i> 21-22, 219-220, 247-248, 389-390</p> <p>Teacher Edition: CCL 13G(M), 13H(A), 209G(H), 239G(LA), 239H(H); CP 15, 211, 241; CT 13H, 239H; FMB 17A, 19A, 29A, 213A, 245A, 259A, 261A</p> |

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| <p>3. identifies 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) (\$).</p> | <p>Student Edition: 17-18, 125-126, 137-138, 264 #12 <i>Problem Solving</i> 41-42 <i>Problem-Solving Investigation</i> 33-34 <i>Problem-Solving Strategy</i> 21-22, 219-220, 247-248, 389-390 <i>Problem-Solving Projects</i> P3-P6, P7-P10 <i>Test Practice</i> 238 #17</p> <p>Teacher Edition: CCL 13G(M), 13H(A); CP 15, 211; FMB 17A</p> |
| <p>4. generates (2.4.K1a):</p> <p>a. repeating patterns for the AB pattern, the ABC pattern, and the AAB pattern;</p> <p>b. growing patterns that add 1, 2, 5, or 10.</p> | <p>Student Edition: 14, 17-18, 19-20 <i>Chapter Review</i> 43 <i>Mid-Chapter Check</i> 31 <i>Problem-Solving Investigation</i> 33-34 <i>Problem-Solving Projects</i> P3-P6, P7-P10 <i>Problem-Solving Strategy</i> 21-22</p> <p>Teacher Edition: CCL 13G(M), 13H(A); CP 15; FMB 17A, 19A</p> |
| <p>Benchmark 2 Variables, Equations, and Inequalities – The student solves addition equations using concrete objects in a variety of situations.</p> | |
| <p>1. explains and uses symbols to represent unknown whole number quantities from 0 through 20 (2.4.K1a).</p> | <p>Teacher Resources: <i>Enrich 5-1</i> page 10 See <i>Math Connects 2</i> © 2009</p> <p>Student Edition: 101-102</p> |
| <p>2. finds the unknown sum or difference of the basic facts using concrete objects (2.4.K1a) (\$), e.g., 12 dominoes – 5 dominoes = Δ dominoes or Δ cubes = 2 cubes + 4 cubes.</p> | <p>Student Edition: 27-28, 48 #6, 155-156, 157 <i>Fact Families</i> 199</p> |
| <p>3. describes and compares two whole numbers from 0 through 100 using the terms: is equal to, is less than, is greater than (2.4.K1a-b) (\$).</p> | <p>Student Edition: 35-36 <i>Extra Practice</i> 37 <i>Game Time</i> 38</p> <p>Teacher Edition: FMB 35A</p> |

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| Benchmark 3: Functions – The student recognizes and describes whole number relationships using concrete objects in a variety of situations. | | | | | | | | | | | | | | | |
| 1. plots whole numbers from 0 through 100 on segments of a number line (2.4.K1a). | Student Edition: 39, 40, 165-166 <i>Problem Solving</i> 203 B, 204 C | | | | | | | | | | | | | | |
| 2. states mathematical relationships between whole numbers from 0 through 50 using various methods including mental math, paper and pencil, and concrete objects (2.4.K1a) (\$), e.g., every time a hand is added to the set, five more fingers are added to the total. | The teacher can meet this standard by using the concept of patterns to explain mathematical relationships of functions. See <i>Math Connects 2</i> © 2009 Student Edition: 39-40, 43-44 <i>Problem Solving</i> 44 #11-#12 Also see <i>Math Connects 3</i> © 2009 Student Edition: 330-331 | | | | | | | | | | | | | | |
| 3. states numerical relationships for whole numbers from 0 through 50 in a horizontal or vertical function table (input/output machine, T-table) (2.4.K1e) (\$), e.g., <table border="0" data-bbox="188 1045 727 1115"> <tr> <td>Number of bicycles</td> <td>1</td> <td>2</td> <td>3</td> <td>4</td> <td>5</td> <td>...</td> </tr> <tr> <td>Total number of wheels</td> <td>2</td> <td>4</td> <td>6</td> <td>8</td> <td>10</td> <td>...</td> </tr> </table> The student states: For every bicycle added, you add two more wheels. | Number of bicycles | 1 | 2 | 3 | 4 | 5 | ... | Total number of wheels | 2 | 4 | 6 | 8 | 10 | ... | See <i>Math Connects 3</i> © 2009 Student Edition: 330-331 |
| Number of bicycles | 1 | 2 | 3 | 4 | 5 | ... | | | | | | | | | |
| Total number of wheels | 2 | 4 | 6 | 8 | 10 | ... | | | | | | | | | |

STANDARDS

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

1. knows, explains, and uses mathematical models to represent mathematical concepts, procedures, and relationships. Mathematical models include:
 - a. process models (concrete objects, pictures, number lines, unifix cubes, measurement tools, or calendars) to model computational procedures and mathematical relationships, to compare and order numerical quantities, and to represent fractional parts (1.1.K1-4, 1.2.K3-5, 1.3.K1, 1.4.K1-3, 2.1.K1, 2.1.K2a, 2.1.K2c, 2.1.K3-5 2.2.K1, 2.3.K1, 3.1.K2, 3.2.K1-3, 3.3.K1-2, 3.4.K1-2) (\$);
 - b. place value models (place value mats, hundred charts, or base ten blocks) to compare, order, and represent numerical quantities and to model computational procedures (1.2.K2, 1.2.K5, 1.4.K6, 2.2.K3) (\$);
 - c. fraction models (fraction strips or pattern blocks) to compare, order, and represent numerical quantities (1.1.K2-3) (\$);
 - d. money models (base ten blocks or coins) to compare, order, and represent numerical quantities (1.1.K5-6, 2.1.K2f) (\$);
 - e. function tables (input/output machines, T-tables) to model numerical relationships (2.3.K3) (\$);
 - f. two-dimensional geometric models (geoboards, dot paper, pattern blocks, tangrams, or attribute blocks), three-dimensional geometric models (solids), and real-world objects to compare size and to model attributes of geometric shapes (2.1.K1c, 3.1.K1-3);
 - g. two-dimensional geometric models (spinners), three-dimensional geometric models (number cubes), and concrete objects to model probability (4.1.K1-2) (\$);
 - h. graphs using concrete objects, pictographs, frequency tables, horizontal and vertical bar graphs, and Venn diagrams or other pictorial displays to organize, display, and explain data (4.1.A1, 4.2.A1-2) (\$);
 - i. Venn diagrams to sort data (4.2.K4).

Student Edition:

35-36, 39-40, 123-124, 125-126, 129-130, 133-134, 137-138, 143-144, 249-250, 251-252, 351-352, 353-354, 355-356, 365-366, 385-386, 391-392, 395-396

Chapter Project 349, 455

Chapter Review 44, 377, 450, 477

Concepts and Skills Bank CS3-CS4, CS9-CS10

Game Time 38, 394, 466

Glossary G3, G7, G17, G20

Mid-Chapter Check 131, 253, 431, 467, 497

Problem Solving 145-146, 447, 475

Problem-Solving Strategy 427-428

Start Smart 3-4

Teacher Edition:

A 40; CCL 13H(LA), 347G(SS), 381H(S), 415G(LA); FMB 23A, 35A, 39A, 123A, 125A, 129A, 133A, 249A, 351A, 353A, 355A, 365A, 445A, 461A, 463A, 469A

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| <p>2. uses concrete objects, pictures, diagrams, drawings, or dramatizations to show the relationship between two or more things (\$).</p> | <p>Student Edition: 35-36, 125-126, 129-130, 133-134, 227-228, 277-278, 285-288, 291-294, 295-298, 301-304 <i>Chapter Project</i> 211 <i>Chapter Review</i> 44, 147-148, 309-310 <i>Extra Practice</i> 37 <i>Mid-Chapter Check</i> 289 <i>Start Smart</i> 7-8</p> <p>Teacher Edition: CCL 13H(LA), 119H; FMB 35A, 125A, 129A, 133A, 227A, 277A, 285A, 291A, 295A, 301A; 5MC 141A</p> |
| <p>Standard 3: Geometry</p> | |
| <p>Standard 3: Geometry – The student uses geometric concepts and procedures in a variety of situations.</p> | |
| <p>Benchmark 1: Geometric Figures and Their Properties – The student recognizes geometric shapes and their attributes using concrete objects in a variety of situations.</p> | |
| <p>1. recognizes and draws circles, squares, rectangles, triangles, and ellipses (ovals) (plane figures/two-dimensional figures) (2.4.K1f).</p> | <p>Student Edition: 395-396 <i>Problem Solving</i> 409-410 <i>Problem-Solving Investigation</i> 399-400 <i>Start Smart</i> 9-10</p> <p>Teacher Edition: ATS 406; CP 383; FMB 395A</p> |
| <p>2. recognizes and investigates attributes of circles, squares, rectangles, triangles, and ellipses (plane figures) using concrete objects, drawings, and appropriate technology (2.4.K1f).</p> | <p>Student Edition: 395-396, 405-406 <i>Problem Solving</i> 409-410 <i>Start Smart</i> 9-10</p> <p>Teacher Edition: FMB 407A</p> |

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| <p>3. recognizes cubes, rectangular prisms, cylinders, cones, and spheres (solids/three-dimensional figures) (2.4.K1f).</p> | <p>Student Edition: 381-382, 385-386 <i>Chapter Project</i> 383 <i>Chapter Review</i> 411-412 <i>Extra Practice</i> 393 <i>Game Time</i> 394 <i>Mid-Chapter Check</i> 397 <i>Problem Solving</i> 409-410 <i>Problem-Solving Investigation</i> 400 #1 <i>Start Smart</i> 9-10</p> <p>Teacher Edition: CCL 381G(A), 381H(S); DI 385B(BL, ELL); FMB 385A</p> |
| <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.</p> | |
| <p>1. uses whole number approximations (estimations) for length and weight using nonstandard units of measure (2.4.K1a) (\$), e.g., the width of the chalkboard is about 10 erasers long or the weight of one encyclopedia is about five picture books.</p> | <p>Student Edition: 279-280, 285-288 <i>Chapter Project</i> 275 <i>Chapter Review</i> 309-310 <i>Extra Practice</i> 283 <i>Mid-Chapter Check</i> 289 <i>Problem-Solving Strategy</i> 282 <i>Start Smart</i> 7-8</p> <p>Teacher Edition: CCL 273H(S); DI 279B: F Lesson 9-4; FMB 279A; PT 283; T 279</p> |
| <p>2. compares two measurements using these attributes (2.4.K1a) (\$):</p> <ol style="list-style-type: none"> longer, shorter (length); taller, shorter (height); heavier, lighter (weight); hotter, colder (temperature). | <p>Student Edition: 277-278, 285-288, 295-298 <i>Chapter Project</i> 275 <i>Chapter Review</i> 309-310 <i>Mid-Chapter Check</i> 289 <i>Start Smart</i> 7-8</p> <p>Teacher Edition: CCL 273H(S); FMB 277A, 285A</p> |

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| 3. reads and tells time at the hour and half-hour using analog and digital clocks (2.4.K1a). | <p>Student Edition: 215-216, 217-218, 223-224, 225-226 <i>Chapter Review</i> 235-236 <i>Mid-Chapter Check</i> 221 <i>Problem Solving</i> 234 <i>Spiral Review</i> 290 <i>Test Practice</i> 237</p> <p>Teacher Edition: CCL 209G; FMB 215A, 217A, 223A; 5MC 217A, 227A</p> |
| 4. selects appropriate measuring tools for length, weight, volume, and temperature for a given situation (2.4.K1a) (\$). | <p>Student Edition: <i>Concepts and Skills Bank</i> CS9-CS10 <i>Looking Ahead</i> LA11-LA12, LA13-LA14</p> <p>Teacher Edition: DI 277B, 285B, 291B, LA11B, LA13B; FMB LA11A, LA13A; R 277A, 291A;</p> |
| 5. measures length and weight to the nearest whole unit using nonstandard units (2.4.K1a) (\$). | <p>Student Edition: 277-278, 279-280, 285-288</p> <p>Teacher Edition: DI 279B, 281B, 285B; FMB 279A; 5MC 281A</p> |
| 6. states the number of days in a week and months in a year (2.4.K1a). | <p>The following pages can be used with teacher assistance to meet this standard.</p> <p>Teacher Edition: CT 13H, 119H, 209H, 273H</p> |
| <p>Benchmark 3: Transformational Geometry – The student develops the foundation for spatial sense using concrete objects in a variety of situations.</p> | |
| 1. describes the spatial relationship between two concrete objects using appropriate vocabulary (2.4.K1a), e.g., behind, above, below, on, under, beside, or in front of. | <p>Student Edition: 401-402, 403-404 <i>Concepts and Skills Bank</i> CS5-CS6</p> <p>Teacher Edition: ATS 402; FMB 401A</p> |
| 2. recognizes that changing an object's position or orientation does not change the name, size, or shape of the object (2.4.K1a). | <p>Student Edition: 405-406 <i>Problem Solving</i> 409-410</p> <p>Teacher Edition: DI 405B</p> |
| 3. describes movement of concrete objects using appropriate vocabulary (2.4.K1a), e.g., right, left, up, or down. | <p>Student Edition: 401-402, 403-404</p> <p>Teacher Edition: ATS 402; DI 401B; FMB 401A</p> |

| STANDARDS | PAGE REFERENCES |
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| <p>Benchmark 4: Geometry From An Algebraic Perspective – The student identifies one or more points on a number line in a variety of situations.</p> | |
| <p>1. locates and plots whole numbers from 0 through 100 on a segment of a number line (horizontal/vertical) (2.4.K1a), e.g., using a segment of a number line from 45 to 60 to locate the whole number 50.</p> | <p>Student Edition: 445-446 <i>Chapter Review</i> 450 Teacher Edition: FMB 445A</p> |
| <p>2. describes a given whole number from 0 to 100 as coming before or after another number on a number line (2.4.K1a).</p> | <p>Student Edition: 445-446 <i>Chapter Review</i> 450 Teacher Edition: FMB 445A</p> |
| <p>3. uses a number line to model addition and counting using whole numbers from 0 to 100 (2.4.K1a).</p> | <p>Student Edition: 165-166 <i>Mid-Chapter Check</i> 167 <i>Test Practice</i> 179 Teacher Edition: FMB 165A</p> |
| <p>Standard 4: Data</p> | |
| <p>Standard 2: Data – The student uses concepts and procedures of data analysis in a variety of situations.</p> | |
| <p>Benchmark 1: Probability – The student applies the concepts of probability using concrete objects in a variety of situations.</p> | |
| <p>1. recognizes whether an outcome of a simple event in an experiment or simulation is impossible, possible, or certain (2.4.K1g) (\$).</p> | <p>Student Edition: 143-144 <i>Chapter Review</i> 148 #10 Teacher Edition: A 144; DI 143B</p> |
| <p>2. recognizes and states whether a simple event in an experiment or simulation including the use of concrete objects can have more than one outcome (2.4.K1g).</p> | <p>See <i>Math Connects 2</i> © 2009 Student Edition: <i>Problem-Solving Investigation</i> 135-136 <i>Problem-Solving Strategy</i> 317-318</p> |

| STANDARDS | PAGE REFERENCES |
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| <p>Benchmark 2: Statistics – The student collects, records, and explains numerical (whole numbers) and non-numerical data sets including the use of concrete objects in a variety of situations.</p> | |
| <p>1. displays and reads numerical (quantitative) and non-numerical (qualitative) data in a clear, organized, and accurate manner including a title, labels, and whole number intervals using these data displays (2.4.K1h) (\$):</p> <ul style="list-style-type: none"> a. graphs using concrete objects, b. pictographs with a whole symbol or picture representing one (no partial symbols or pictures), c. frequency tables (tally marks), d. horizontal and vertical bar graphs, e. Venn diagrams or other pictorial displays, e.g., glyphs. | <p>Student Edition: 123-124, 125-126, 129-130, 133-134, 137-138 <i>Chapter Review</i> 147-148 <i>Problem Solving</i> 145-146 <i>Problem-Solving Projects</i> P7-P14 <i>Spiral Review</i> 132 <i>Start Smart</i> 11-12 <i>Test Practice</i> 149</p> <p>Teacher Edition: CCL 119G(H), 119H; FMB 123A, 125A, 129A, 133A, 137A</p> |
| <p>2. collects data using different techniques (observations or interviews) and explains the results (2.4.K1h) (\$).</p> | <p>Student Edition: 129-130 <i>Mid-Chapter Check</i> 131 <i>Problem-Solving Projects</i> P7-P10</p> <p>Teacher Edition: CCL 119G(H); CP 121; FMB 129A</p> |
| <p>3. identifies the minimum (lowest) and maximum (highest) values in a data set (2.4.K1a) (\$).</p> | <p>Student Edition: 125-126, 130-131, 133-134, 137-138 <i>Chapter Review</i> 147-148 <i>Mid-Chapter Check</i> 131 <i>Problem-Solving Projects</i> P7-P10 <i>Problem-Solving Strategy</i> 128 <i>Spiral Review</i> 132 <i>Test Practice</i> 149 #2</p> <p>Teacher Edition: FMB 137A</p> |
| <p>4. determines the mode (most) after sorting by one attribute (2.4.K1a,i) (\$).</p> | <p>Student Edition: 128 #4, 130 #5, 138 #4 <i>Problem Solving</i> 146(C) <i>Problem-Solving Projects</i> P7-P10 <i>Spiral Review</i> 132 <i>Tech Link</i> 140 #16</p> |

| STANDARDS | PAGE REFERENCES |
|--|---|
| 5. sorts and records qualitative (non-numerical, categorical) data sets using one attribute (2.4.K1a) (\$), e.g., color, shape, or size. | Student Edition: 123-124, 126 #5-#9, 130 #5-#8 <i>Mid-Chapter Check</i> 131 #1 Teacher Edition: CCL 119G; DI 123B; FMC 123A; 5MC 125A |