



Pre-Algebra

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STANDARDS	PAGE REFERENCES
GRADE 6	
Number and Operations	
1. Understand numbers, ways of representing numbers, relationships among numbers and number systems	
A. Read, write and compare numbers	
<p>compare and order integers, positive rationals and percents, including finding their approximate location on a number line</p> <p>ST MA 5 3.3 FR IX.b</p>	<p>Student Edition: 78-82, 117, 230-232, 237 #42-#49, 238 #56, 258, 259, 260, 272 #58-#59, 315, 327, 470, 665, 742 <i>Mid-Chapter Quiz</i> 98 #6, #7 <i>Practice Test</i> 119, 223 #29, #30 <i>Reading Math</i> 301 <i>Standardized Test Practice</i> 354 #5, 415 #9</p> <p>Teacher Wraparound Edition: AE 79; COI 79; DI 80, 229; FMC 226E, 231; PA 233; TNT 87</p>

STANDARDS	PAGE REFERENCES
B. Represent and use rational numbers	
<p>recognize and generate equivalent forms of fractions, decimals and percents</p> <p>ST MA 1 3.3</p> <p>FR V.b</p>	<p>Student Edition: 228-233, 234-238, 282, 313-318, 326 #38-#41, 327, 350, 770, 774, 797, 799 #7-#10 <i>Mid-Chapter Quiz</i> 256 #7-#10, 319 #15 <i>Practice Test</i> 285 #1-#6, 353 #6-#11 <i>Standardized Test Practice</i> 354 #1</p> <p>Teacher Wraparound Edition: A 318; AE 229, 314, 315; CON 229; FMC 231, 235; PC 290H</p>
C. Compose and decompose numbers	
<p>recognize equivalent representations for the same number and generate them by <u>decomposing and composing numbers</u>, including expanded notation</p> <p>ST MA 1 3.6</p> <p>FR V.b</p>	<p>Student Edition: 214-219, 222, 228-233, 313-318, 363 #40 <i>Practice Test</i> 223 #25-#30 <i>Standardized Test Practice</i> 224 #2, #5, 225 #12, 286 #5, 355 #8-#11</p> <p>Teacher Wraparound Edition: AE 215; DI 215; FMC 216; PA 318</p> <p>Note: For <i>expanded notation</i> see Glencoe's <i>Mathematics: Applications and Concepts Course 2</i> © 2006 page 586.</p>
D. Classify and describe numeric relationships	
<p>use <u>factors</u> and <u>multiples</u> to describe relationships between and among numbers, including whole number <u>common factors and multiples</u></p> <p>ST MA 5 1.10</p> <p>FR IX.c</p>	<p>Student Edition: 191-195, 200 #45-#46, 213 #69, 221, 257-261, 283 <i>Algebra Lab</i> 262 <i>Mid-Chapter Quiz</i> 202 #13-#16 <i>Reading Math</i> 255</p> <p>Teacher Wraparound Edition: AA 223; DI 192; EA 188</p>

STANDARDS	PAGE REFERENCES
2. Understand meanings of operations and how they relate to one another	
A. Represent operations	
B. Describe effects of operations	
describe the effects of addition and subtraction on fractions and decimals ST MA 1, 5 3.4, 4.1 FR V.a, IX.a	Student Edition: 250-254, 261 #64-#67, 263-267, 272, 283, 284, 745, 797, 798 <i>Mid-Chapter Quiz</i> 256 <i>Standardized Test Practice</i> 121 #10, 224 #4, 286 #2 Teacher Wraparound Edition: AE 351; PA 254; TNT 264
C. Apply properties of operations	
D. Apply operations on real and complex numbers	
3. Compute fluently and make reasonable estimates	
A. Describe or represent mental strategies	
B. Develop and demonstrate fluency	
C. Compute problems	
add and subtract positive rational numbers ST MA 1 1.10, 3.3 FR V.a	Student Edition: 27 #1, 86-90, 93-97, 104 #69-#71, 117, 250-254, 263-267, 283-284, 745, 795, 797, 798 <i>Algebra Lab</i> 84-85, 92 <i>Mid-Chapter Quiz</i> 98, 256 <i>Practice Test</i> 119 <i>Standardized Test Practice</i> 74 #4, 121 #4, 224 #4 Teacher Wraparound Edition: AE 87, 94, 251, 265; FMC 87, 94; PA 97
D. Estimate and justify solutions	
estimate and justify the results of addition and subtraction of positive rational numbers ST MA 1 3.3, 4.1 FR V.e & h	Student Edition: 89 #41, 217 #36, 250 #1, 265 #4, 401 #36 <i>Practice Test</i> 173 #21 <i>Standardized Test Practice</i> 120 #4 Teacher Wraparound Edition: PA 90

STANDARDS	PAGE REFERENCES
E. Use proportional reasoning	
solve problems using equivalent ratios ST MA 1 3.3 FR V.c	Student Edition: 292-296, 309 #1, 312 #20, #21, 799 #1 <i>Mid-Chapter Quiz</i> 319 <i>Practice Test</i> 353 Teacher Wraparound Edition: AE 294
Algebraic Relationships	
1. Understand patterns, relations and functions	
A. Recognize and extend patterns	
B. Create and analyze patterns	
represent and describe patterns with tables, graphs, pictures, <u>symbolic rules</u> or words ST MA 4 1.6, 3.6 FR VIII.4.b, VIII.3	Student Edition: 27 #1, 29, 30 #29, 36 #55-#60, 63 #3, 65 #18-#21, 158-161, 180, 184 #71, 189 #45, 206 #43, #44, 209, 297, 501 #15, #16 <i>Graphing Calculator Lab</i> 67-68 <i>Mid-Chapter Quiz</i> 48 #1, 319 #6, #7 <i>Practice Test</i> 173 #23 <i>Standardized Test Practice</i> 75 #7, 121 #9, 174-175, 355 #7 Teacher Wraparound Edition: AE 27, 159; DI 27, 125; PA 530
C. Classify objects and representations	
compare various forms of <u>representations</u> to identify a pattern ST MA 4 1.6 FR VIII.3.b	Student Edition: 63 #3, 65, 139 #30, #31, 161 #34, 180, 184 #71, 215 #3, 799 #3, 805 <i>Graphing Calculator Lab</i> 67-68 <i>Mid-Chapter Quiz</i> 319 #6, #7 <i>Practice Test</i> 353 #5 <i>Standardized Test Practice</i> 75 #13, 174 #1, 175 #9, 737 #9 Teacher Wraparound Edition: AE 64

STANDARDS	PAGE REFERENCES
D. Identify and compare functions	
identify <u>functions</u> as <u>linear</u> or <u>nonlinear</u> from a table or graph ST MA 4 1.6, 3.6 FR VIII.b & c	Student Edition: 365-369, 376, 720-725, 734, 806 #9 <i>Practice Test 735 #18-#20</i> Teacher Wraparound Edition: AE 721, 722; DI 398, 721; FMC 367; PA 59; PC 356H
E. Describe the effects of parameter changes	
2. Represent and analyze mathematical situations and structures using algebraic symbols	
A. Represent mathematical situations	
use variables to represent unknown quantities in expressions ST MA 4 1.6, 3.1 FR VIII.2e	Student Edition: 37-41, 71, 97 #66-#69, 131 #3, 157 #33, 794 #5 <i>Spreadsheet Lab 42</i> Teacher Wraparound Edition: A 41; AA 73; AE 39; PA 41
B. Describe and use mathematical manipulation	
recognize equivalent forms for simple algebraic expressions (associative, distributive properties) ST MA 5 3.6 FR IX.1	Student Edition: 124-128, 129-133, 140 #45-#50, 145 #55-#57, 151 #60-#65, 170, 198-199, 206 #45-#48, 221, 796 #2 <i>Mid-Chapter Quiz 146 #3-#6, 202 #27-#29</i> <i>Practice Test 173 #3-#6</i> Teacher Wraparound Edition: AE 125, 126, 130; FMC 126, 131; PA 128; PC 416H
C. Utilize equivalent forms	
D. Utilize systems	

STANDARDS	PAGE REFERENCES
3. Use mathematical models to represent and understand quantitative relationships	
A. Use mathematical models	
<p>model and solve problems, using multiple representations such as graphs, tables, expressions and equations</p> <p>ST MA 4 1.6, 3.6 FR VIII.b</p>	<p>Student Edition: 35 #35-#36, 51 #8, #9, 66 #35, #36, 109 #30, #31, 113 #3, 115 #58, 139 #30, #31, 158-161, 162-167, 172, 420-423, 424-428</p> <p><i>Algebra Lab</i> 208, 320-321, 358, 418-419 <i>Graphing Calculator Lab</i> 364, 395-396 <i>Practice Test</i> 73 #8, 413 #19, #20, 455</p> <p>Teacher Wraparound Edition: AA 413; AE 51, 159; FMC 164; I 142; PA 59, 369</p>
4. Analyze change in various contexts	
A. Analyze change	
<p>compare situations with constant or varying rates of change</p> <p>ST MA 2, 4 1.6, 4.1 FR VI.I, VIII.c</p>	<p>Student Edition: 371-375, 376-381, 410, 800 #7, 826 #10</p> <p><i>Algebra Lab</i> 383 <i>Graphing Calculator Lab</i> 390</p> <p>Teacher Wraparound Edition: A 375; AE 372, 373; DI 378; FMC 373, 378; PA 381</p>
Geometric and Spatial Relationships	
1. Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships	
A. Describe and use geometric relationships	
<p>identify the <u>properties of 1- 2- and 3-dimensional shapes</u> using the appropriate geometric vocabulary</p> <p>ST MA 2 1.10, 3.3 FR VI.2.a</p>	<p>Student Edition: 497-502, 506, 513, 517 #36, 518-523, 565, 608-613, 618, 637 #25, #26, 803, 804</p> <p><i>Geometry Lab</i> 607 <i>Practice Test</i> 507 #20, 569 #5, 619 #15 <i>Standardized Test Practice</i> 508 #1, 620 #4</p> <p>Teacher Wraparound Edition: AA 507; AE 498, 519, 520, 610; PA 502, 523</p>

STANDARDS	PAGE REFERENCES
B. Apply geometric relationships	
describe relationships between the <u>corresponding angles</u> and the length of <u>corresponding sides</u> of <u>similar triangles</u> (whole number scale factors) ST MA 2 1.6 FR VI.c	Student Edition: 497-498, 501, 506, 518-523, 565, 608-613, 631 #33, 804, 820 #12 <i>Mid-Chapter Quiz</i> 537 #6 <i>Practice Test</i> 507 #20, 569 #5, 619 #15 <i>Standardized Test Practice</i> 508 #1, 620 #4 Teacher Wraparound Edition: AA 507; AE 520; I 498; PA 502
C. Compose and decompose shapes	
2. Specify locations and describe spatial relationships using coordinate geometry and other representational systems	
A. Use coordinate systems	
use coordinate geometry to construct geometric shapes ST MA 2 1.6, 1.8 FR VI.a	Student Edition: 524-530, 536 #34, 543 #41, 566 <i>Standardized Test Practice</i> 571 #12 Teacher Wraparound Edition: A 530; AE 525
3. Apply transformations and use symmetry to analyze mathematical situations	
A. Use transformations on objects	
describe the transformation from a given <u>pre-image</u> to its image using the terms <u>reflection/flips</u> , <u>rotation/turn</u> and <u>translation/slide</u> ST MA 2 3.7 FR VI.b	Student Edition: 524-530 <i>Geometry Lab</i> 531 <i>Mid-Chapter Quiz</i> 537 #9 <i>Standardized Test Practice</i> 571 #12 Teacher Wraparound Edition: AE 526; DI 525
B. Use transformations on functions	
C. Use symmetry	
create polygons and designs with <u>rotational symmetry</u> ST MA 2 1.6 FR VI.b	Student Edition: 524 <i>Geometry Lab</i> 531, 544 Teacher Wraparound Edition: A 544

STANDARDS	PAGE REFERENCES
<p>4. Use visualization, spatial reasoning and geometric modeling to solve problems</p>	
<p>A. Recognize and draw three-dimensional representations</p>	
<p>use spatial visualization to identify <u>isometric representations</u> of <u>mat plans</u> ST MA 2 3.3 FR VI.a</p>	<p>Student Edition: 577-581, 588 #40 <i>Geometry Lab</i> 574 <i>Mid-Chapter Quiz</i> 595 #6 <i>Practice Test</i> 619 #1 Teacher Wraparound Edition: A 581; AE 577</p>
<p>B. Draw and use visual models</p>	
<p>draw or use <u>visual models</u> to represent and solve problems ST MA 2 3.1 FR VI.d</p>	<p>Student Edition: 519 #2, 528, 529 #32, 543 #35, 555 #33, 579 #17, #18, 600 #7-#16 <i>Geometry Lab</i> 544, 596 <i>Standardized Test Practice</i> 509 #13 Teacher Wraparound Edition: AA 507; DI 493, 499, 514, 525, 577; PA 502, 530</p>
<p>Measurement</p>	
<p>1. Understand measurable attributes of objects and the units, systems and processes of measurement</p>	
<p>A. Determine unit of measurement</p>	
<p>identify and justify an angle as acute, obtuse, straight or right ST MA 2 3.1, 4.1 FR VI.g</p>	<p>Student Edition: 477-481, 490 #48-#50 <i>Mid-Chapter Quiz</i> 482 #26-#29 <i>Reading Math</i> 475 Teacher Wraparound Edition: A 481; AE 478; FMC 477; I 478</p>
<p>B. Identify equivalent measures</p>	
<p>C. Tell and use units of time</p>	
<p>solve problems involving elapsed time (hours and minutes) ST MA 5 3.1 FR IX.d</p>	<p>With teacher adaptation, the following pages can be used to meet this standard. Student Edition: 29, 190, 802 Also see Glencoe's <i>Mathematics: Applications and Concepts Course 2</i> © 2006 pages 495-496.</p>
<p>D. Count and compute money</p>	

STANDARDS	PAGE REFERENCES
2. Apply appropriate techniques, tools and formulas to determine measurements	
A. Use standard or non-standard measurement	
estimate a measurement using either <u>standard</u> or <u>non-standard</u> unit of measurement ST MA 2 1.6, 3.3 FR VI.e & f	Student Edition: 40 #31-#32, 51 #4, 211 #35, #36, 240 #4, 380 #5, #6 <i>Mid-Chapter Quiz</i> 48 #3
B. Use angle measurement	
select and use <u>benchmarks</u> to estimate measurements of 0-, 45-, 90-, 180-, 360-degree angles ST MA 2 3.4 FR VI.f & g	Student Edition: 477, 478 Teacher Wraparound Edition: FMC 477
C. Apply geometric measurements	
describe how to solve problems involving the area or perimeter of polygons ST MA 2 3.4, 4.1 FR VI.i & g	Student Edition: 162-167, 172, 238 #67, #68, 336 #50, #51, 501 #20-#23, 520 #3 <i>Practice Test</i> 173 #24 <i>Spreadsheet Lab</i> 168 <i>Standardized Test Practice</i> 174 #2, 225 #10 Teacher Wraparound Edition: A 167; AE 163
D. Analyze precision	
E. Use relationships within a measurement system	
convert from one unit to another within a system of measurement (mass and weight) ST MA 2 1.6, 1.10 FR VI.e & f	Student Edition: 243 #52, 380 #5, #6, 587 #29, #33

STANDARDS	PAGE REFERENCES
Data and Probability	
1. Formulate questions that can be addressed with data and collect, organize and display relevant data to answer them	
A. Formulate questions	
formulate questions, design studies and collect data about a characteristic ST MA 3 1.2 FR VII.a	Student Edition: 648 #23, 651-656 <i>Algebra Lab</i> 273, 307 <i>Cross-Curricular Project</i> 23, 167, 623 <i>Mid-Chapter Quiz</i> 658 #13-#16 Teacher Wraparound Edition: AE 653; DI 344, 385, 652
B. Classify and organize data	
C. Represent and interpret data	
interpret circle graphs; create and interpret <u>stem-and-leaf plots</u> ST MA 3 1.8 FR VII.b	Student Edition: 325 #27, 555 #27-#29, 626-631, 652, 667 #4 <i>Graphing Calculator Lab</i> 632 <i>Mid-Chapter Quiz</i> 658 #13-#16 <i>Spreadsheet Lab</i> 557 Teacher Wraparound Edition: AA 695; AE 627, 652, 653; DI 652; PA 631
2. Select and use appropriate statistical methods to analyze data	
A. Describe and analyze data	
find the <u>range</u> and <u>measures of center</u> , including <u>median, mode and mean</u> ST MA 3 3.2 FR VII.c	Student Edition: 274-279, 284, 296 #54, 300 #28, #29, 631 #47-#49, 633-637, 638-639 #1, 691, 798 #13, 805 #2 <i>Graphing Calculator Lab</i> 280 <i>Practice Test</i> 285 #25 <i>Standardized Test Practice</i> 286 #6, 287 #13 Teacher Wraparound Edition: AA 285; AE 276, 634, 635; PA 279

STANDARDS	PAGE REFERENCES
B. Compare data representations	
<p>compare different representations of the same data and evaluate how well each representation shows important aspects of the data</p> <p>ST MA 3 3.6 FR VII.d</p>	<p>Student Edition: 61-66, 213 #75-#76, 628-631, 638-642, 644-648, 651-656, 691-693, 805 <i>Graphing Calculator Lab</i> 67-68, 643 <i>Spreadsheet Lab</i> 657 <i>Standardized Test Practice</i> 75 #13</p> <p>Teacher Wraparound Edition: AE 627; DI 652; FMC 653</p>
C. Represent data algebraically	
3. Develop and evaluate inferences and predictions that are based on data	
A. Develop and evaluate inferences	
<p>use observations about differences between 2 samples to make <u>conjectures</u> about the populations from which the samples were taken</p> <p>ST MA 3 3.5 FR VII.e</p>	<p>Student Edition: 345 #4, 346 #13, #14 <i>Algebra Lab</i> 307 <i>Cross-Curricular Project</i> 289</p> <p>Teacher Wraparound Edition: DI 344</p>
B. Analyze basic statistical techniques	
4. Understand and apply basic concepts of probability	
A. Apply basic concepts of probability	
<p>use a model (diagrams, list, sample space or area model) to illustrate the possible outcomes of an event</p> <p>ST MA 3, 6 3.2 FR VII.g, X.c</p>	<p>Student Edition: 665-669, 670-674, 680 #33, #34, 687 #41, 693, 694 <i>Algebra Lab</i> 675</p> <p>Teacher Wraparound Edition: A 674; AE 671</p>
B. Use and describe compound events	

STANDARDS	PAGE REFERENCES
GRADE 7	
Number and Operations	
1. Understand numbers, ways of representing numbers, relationships among numbers and number systems	
A. Read, write and compare numbers	
<p>compare and order integers, positive rationals and percents, including finding their approximate location on a number line</p> <p>ST MA 5 3.3 FR IX.b</p>	<p>Student Edition: 78-82, 117, 230-232, 237 #42-#49, 238 #56, 258, 259, 260, 272 #58-#59, 315, 327, 470, 665, 742 <i>Mid-Chapter Quiz</i> 98 #6, #7 <i>Practice Test</i> 119, 223 #29, #30 <i>Reading Math</i> 301 <i>Standardized Test Practice</i> 354 #5, 415 #9</p> <p>Teacher Wraparound Edition: AE 79; COI 79; DI 80, 229; FMC 226E, 231; PA 233; TNT 87</p>
B. Represent and use rational numbers	
<p>use fractions, decimals and percents to solve problems</p> <p>ST MA 1 3.4 FR V.d</p>	<p>Student Edition: 27 #1, 231 #6, 240 #4, 247 #5, 253 #42-#44, 315 #6, 316, 329 #3, 335, 341, 350, 667 #4, 797-799 <i>Cross-Curricular Project</i> 177 <i>Mid-Chapter Quiz</i> 146 #2, 256 #11, #18, 319 <i>Spreadsheet Lab</i> 337 <i>Standardized Test Practice</i> 74 #4, 286 #3, 287 #9</p> <p>Teacher Wraparound Edition: PA 254</p>
C. Compose and decompose numbers	
<p>recognize equivalent representations for the same number and generate them by <u>decomposing and composing numbers</u>, including exponential notation</p> <p>ST MA 1 3.6 FR V.b</p>	<p>Student Edition: 214-219, 222, 228-233, 313-318, 363 #40 <i>Practice Test</i> 223 #25-#30 <i>Standardized Test Practice</i> 224 #2, #5, 225 #12, 286 #5, 355 #8-#11</p> <p>Teacher Wraparound Edition: AE 215; DI 215; FMC 216; PA 318</p> <p>Note: For <i>expanded notation</i> see Glencoe's <i>Mathematics Applications and Concepts Course 2</i> © 2006 page 586.</p>

STANDARDS	PAGE REFERENCES
D. Classify and describe numeric relationships	
<p>use whole number <u>factors</u> and <u>multiples</u> to describe relationships between and among numbers</p> <p>ST MA 5 1.10 FR IX.c</p>	<p>Student Edition: 191-195, 200 #45-#46, 213 #69, 221, 257-261, 283 <i>Algebra Lab</i> 262 <i>Mid-Chapter Quiz</i> 202 #13-#16 <i>Reading Math</i> 255</p> <p>Teacher Wraparound Edition: AA 223; DI 192; EA 188</p>
2. Understand meanings of operations and how they relate to one another	
A. Represent operations	
B. Describe effects of operations	
<p>describe the effects of multiplication and division on fractions and addition and subtraction on integers</p> <p>ST MA 1 3.4, 4.1 FR V.a</p>	<p>Student Edition: 86-90, 93-97, 104 #69-#71, 110 #40-#43, 117, 239-244, 245-249, 254 #59-#66, 282, 283, 795, 798 <i>Algebra Lab</i> 84-85, 92 <i>Cross-Curricular Project</i> 177, 279 <i>Mid-Chapter Quiz</i> 98, 256 #13-#16 <i>Practice Test</i> 119, 285 <i>Standardized Test Practice</i> 120 #2</p> <p>Teacher Wraparound Edition: AE 87, 94, 240, 246; FMC 87, 94, 241, 247</p>
C. Apply properties of operations	
<p>apply <u>properties of operations</u> (including order of operations) to positive rational numbers</p> <p>ST MA 5 1.6, 1.10 FR IX.e</p>	<p>Student Edition: 32, 43-47, 59 #62, 71, 124-128, 762 <i>Key Concepts</i> 69 <i>Practice Test</i> 73 #5-#7 <i>Standardized Test Practice</i> 75 #9</p> <p>Teacher Wraparound Edition: AA 119; AE 44; DI 204; FMC 33, 45; PA 30; PC 24H</p>

STANDARDS	PAGE REFERENCES
D. Apply operations on real and complex numbers	
approximate the value of square roots to the nearest whole number ST MA 5 3.3 FR IX.f	Student Edition: 464-468, 474 #62-#65, 481 #56-#59, 504 <i>Algebra Lab</i> 462-463 <i>Mid-Chapter Quiz</i> 482 #5-#8 <i>Practice Test</i> 507 #5 Teacher Wraparound Edition: AE 465, 466
3. Compute fluently and make reasonable estimates	
A. Describe or represent mental strategies	
B. Develop and demonstrate fluency	
C. Compute problems	
multiply and divide positive rational numbers ST MA 1 1.10, 3.3 FR V.a	Student Edition: 27 #1, 100-104, 106-110, 239-244, 245-249 <i>Algebra Lab</i> 105 <i>Cross-Curricular Project</i> 177 <i>Standardized Test Practice</i> 74 #4, 457 #10 Teacher Wraparound Edition: AE 107, 240; FMC 27, 101, 107, 241
D. Estimate and justify solutions	
estimate and justify the results of multiplication and division of positive rational numbers ST MA 1 3.3, 4.1 FR V.e & h	Student Edition: 166 #37, #38, 215 #3, 331 #43, 401 #36
E. Use proportional reasoning	
solve problems involving proportions, such as scaling and finding equivalent ratios ST MA 1 3.3 FR V.c & f	Student Edition: 302-306, 308-312, 324-326, 497-502, 506, 799 <i>Algebra Lab</i> 307 <i>Mid-Chapter Quiz</i> 319 #10, #13, #14 <i>Standardized Test Practice</i> 354 #1, 508 #1 Teacher Wraparound Edition: AE 309, 310, 498; FMC 303; PA 312

STANDARDS	PAGE REFERENCES
Algebraic Relationships	
1. Understand patterns, relations and functions	
A. Recognize and extend patterns	
B. Create and analyze patterns	
<p>analyze patterns represented <u>graphically</u> or <u>numerically</u> using words or <u>symbolic rules</u>, including <u>recursive notation</u></p> <p>ST MA 4 1.6, 3.6 FR VIII.4.b</p>	<p>Student Edition: 27 #1, 36 #55-#60, 63 #3, 158-161, 189 #45, 194 #43, #44, 209, 297 <i>Mid-Chapter Quiz</i> 319 #6, #7 <i>Practice Test</i> 173 #23 <i>Standardized Test Practice</i> 75 #7, 174-175</p> <p>Teacher Wraparound Edition: AE 27, 159; DI 125</p>
C. Classify objects and representations	
<p>compare and contrast various forms of <u>representations</u> of patterns</p> <p>ST MA 4 1.6 FR VIII.3.b</p>	<p>Student Edition: 63 #3, 65, 139 #30, #31, 161 #34, 180, 184 #71, 215 #3, 799 #3, 805 <i>Graphing Calculator Lab</i> 67-68 <i>Mid-Chapter Quiz</i> 319 #6, #7 <i>Practice Test</i> 353 #5 <i>Standardized Test Practice</i> 75 #13, 174 #1, 175 #9, 737 #9</p> <p>Teacher Wraparound Edition: AE 64</p>
D. Identify and compare functions	
<p>identify <u>functions</u> as <u>linear</u> or <u>nonlinear</u> from tables, graphs or equations</p> <p>ST MA 4 1.6, 3.6 FR VIII.b & c</p>	<p>Student Edition: 365-369, 376, 720-725, 734, 806 #9 <i>Practice Test</i> 735 #18-#20</p> <p>Teacher Wraparound Edition: AE 721, 722; DI 398, 721; FMC 367; PA 59; PC 356H</p>

STANDARDS	PAGE REFERENCES
E. Describe the effects of parameter changes	
2. Represent and analyze mathematical situations and structures using algebraic symbols	
A. Represent mathematical situations	
<p>use variables to represent unknown quantities in equations and inequalities ST MA 4 1.6, 3.1 FR VIII.2.e</p>	<p>Student Edition: 49-53, 59 #58-#61, 71, 90 #58, #59, 110 #44, 138 #4, 142 #2, 430-434, 437 #4, 453, 801 <i>Mid-Chapter Quiz</i> 146 #11-#14, 440 #18 <i>Standardized Test Practice</i> 75 Teacher Wraparound Edition: AE 51, 431; FMC 50, 432; PA 53</p>
B. Describe and use mathematical manipulation	
<p>generate equivalent forms for simple algebraic expressions ST MA 4 3.6 FR VIII.a</p>	<p>Student Edition: 124-128, 129-133, 140 #45-#50, 145 #55-#57, 151 #60-#65, 170, 198-199, 206 #45-#48, 221, 796 #2 <i>Mid-Chapter Quiz</i> 146 #3-#6, 202 #27-#29 <i>Practice Test</i> 173 #3-#6 Teacher Wraparound Edition: AE 125, 126, 130; FMC 126, 131; PA 128; PC 416H</p>
C. Utilize equivalent forms	
D. Utilize systems	
3. Use mathematical models to represent and understand quantitative relationships	
A. Use mathematical models	
<p><u>model</u> and solve problems, using multiple representations such as graphs, tables, expressions, equations or inequalities ST MA 4 1.6, 3.6 FR VIII.b</p>	<p>Student Edition: 35 #35-#36, 51 #8, #9, 66 #35, #36, 109 #30, #31, 113 #3, 115 #58, 139 #30, #31, 158-161, 162-167, 172, 420-423, 424-428, 430-434, 435-439, 441-445, 446-449, 452 <i>Algebra Lab</i> 208, 320-321, 358, 418-419 <i>Graphing Calculator Lab</i> 364, 395-396 <i>Mid-Chapter Quiz</i> 440 <i>Practice Test</i> 73 #8, 413 #19, #20, 455 <i>Standardized Test Practice</i> 457 #14 Teacher Wraparound Edition: AA 413; AE 51, 159; FMC 164; I 142; PA 59, 369, 450</p>

STANDARDS	PAGE REFERENCES
4. Analyze change in various contexts	
A. Analyze change	
compare situations with constant or varying rates of change ST MA 2, 4 1.6, 4.1 FR VI.I, VIII.c	Student Edition: 371-375, 376-381, 410, 800 #7, 826 #10 <i>Algebra Lab</i> 383 <i>Graphing Calculator Lab</i> 390 Teacher Wraparound Edition: A 375; AE 372, 373; DI 378; FMC 373, 378; PA 381
Geometric and Spatial Relationships	
1. Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships	
A. Describe and use geometric relationships	
classify 2- and 3-dimensional shapes based on their <u>properties</u> ST MA 2 3.6 FR VI.2.a	Student Edition: 497-502, 506, 518-523, 565, 608-613, 618, 637 #25, #26, 803, 804 <i>Geometry Lab</i> 607 <i>Practice Test</i> 507 #20, 569 #5, 619 #15 <i>Standardized Test Practice</i> 508 #1, 620 #4 Teacher Wraparound Edition: AA 507; AE 498, 519, 520, 610; PA 502, 523
B. Apply geometric relationships	
describe relationships between <u>corresponding sides</u> , <u>corresponding angles</u> and corresponding perimeters of <u>similar polygons</u> ST MA 2 1.6 FR VI.c	Student Edition: 501 #24, 522 #18, #19
C. Compose and decompose shapes	
2. Specify locations and describe spatial relationships using coordinate geometry and other representational systems	
A. Use coordinate systems	
given ordered pairs, identify geometric shapes in the <u>coordinate plane</u> using their properties ST MA 2 1.6, 1.8 FR VI.c	Student Edition: 525, 526, 527-529 Teacher Wraparound Edition: AE 526, 527; DI 525

STANDARDS	PAGE REFERENCES
3. Apply transformations and use symmetry to analyze mathematical situations	
A. Use transformations on objects	
reposition shapes under <u>informal</u> transformations, such as reflection (flip), rotation (turn) and translation (slide) ST MA 2 3.6 FR VI.b	Student Edition: 524-530 <i>Geometry Lab</i> 531 <i>Mid-Chapter Quiz</i> 537 #9 <i>Standardized Test Practice</i> 571 #12 Teacher Wraparound Edition: AE 526; DI 525
B. Use transformations on functions	
describe the relationship between the scale factor and the perimeter of the image using a <u>dilation (contractions-magnifications)</u> (stretching/shrinking) ST MA 2 3.6 FR VI.b & g	The following pages can be used with Teacher instruction to include <i>perimeter</i> . Student Edition: 526-527 Teacher Wraparound Edition: DI 525
C. Use symmetry	
determine all lines of symmetry of polygons ST MA 2 1.6 FR VI.b	Student Edition: 524, 526
4. Use visualization, spatial reasoning and geometric modeling to solve problems	
A. Recognize and draw three-dimensional representations	
use spatial visualizations to identify various 2-dimensional views of <u>isometric drawings</u> ST MA 2 3.3 FR VI.a	Three-dimensional views are covered on the following pages. Student Edition: 577-581, 588 #40 <i>Geometry Lab</i> 574 <i>Mid-Chapter Quiz</i> 595 #6 <i>Practice Test</i> 619 #1 Teacher Wraparound Edition: A 581; AE 577

STANDARDS	PAGE REFERENCES
B. Draw and use visual models	
draw or use <u>visual models</u> to represent and solve problems ST MA 2 3.1 FR VI.d	Student Edition: 519 #2, 528, 529 #32, 543 #35, 555 #33, 579 #17, #18, 600 #7-#16 <i>Geometry Lab</i> 544, 596 <i>Standardized Test Practice</i> 509 #13 Teacher Wraparound Edition: AA 507; DI 493, 499, 514, 525, 577; PA 502, 530
Measurement	
1. Understand measurable attributes of objects and the units, systems and processes of measurement	
A. Determine unit of measurement	
identify and justify the unit of measure for volume (customary and metric) ST MA 2 3.1, 4.1 FR VI.f & g	Student Edition: 583-588, 589-594, 606 #32, 611 #4 <i>Mid-Chapter Quiz</i> 595 #7-#10, #13, #14 Teacher Wraparound Edition: AE 584, 585, 586, 590, 591; PA 588
B. Identify equivalent measures	
identify the equivalent area measures within a system of measurement (e.g., sq ft. to sq in.) ST MA 2 1.6 FR VI.i	The following pages can be used with the conversion chart, found inside the back cover of the text, to meet this standard. Student Edition: 545-550, 558-562, 567 <i>Practice Test</i> 569 Teacher Wraparound Edition: AE 547
C. Tell and use units of time	
solve problems involving addition and subtraction of time (hours, minutes and seconds) ST MA 5 3.1 FR IX.d	Student Edition: 190 #55-#57
D. Count and compute money	

STANDARDS	PAGE REFERENCES
2. Apply appropriate techniques, tools and formulas to determine measurements	
A. Use standard or non-standard measurement	
B. Use angle measurement	
use tools to measure angles to the nearest degree ST MA 2 1.4, 3.2 FR VI.f	Student Edition: 757, 758
C. Apply geometric measurements	
describe how to solve problems involving circumference and/or area of a circle ST MA 2 3.4, 4.1 FR VI.i & g	Student Edition: 551-556, 562 #28-#30, 568, 803 #11 <i>Practice Test</i> 569 #15 <i>Standardized Test Practice</i> 570 #1 Teacher Wraparound Edition: AE 552
D. Analyze precision	
analyze <u>precision</u> and accuracy in measurement situations ST MA 2 1.7, 3.8 FR VI.f	Student Edition: 614 Teacher Wraparound Edition: T 614
E. Use relationships within a measurement system	
convert from one unit to another within a system of measurement (capacity) ST MA 2 1.6, 1.10 FR VI.e & f	Student Edition: 753-756 Back Cover Teacher Wraparound Edition: PA 588
Data and Probability	
1. Formulate questions that can be addressed with data and collect, organize and display relevant data to answer them	
A. Formulate questions	
formulate questions, design studies and collect data about a characteristic ST MA 3 1.2 FR VII.a	Student Edition: 648 #23, 651-656 <i>Algebra Lab</i> 273, 307 <i>Cross-Curricular Project</i> 23, 167, 623 <i>Mid-Chapter Quiz</i> 658 #13-#16 Teacher Wraparound Edition: AE 653; DI 344, 385, 652

STANDARDS	PAGE REFERENCES
B. Classify and organize data	
C. Represent and interpret data	
<p>select, create and use appropriate graphical representation of data, including circle graphs, histograms and box plots (box and whiskers)</p> <p>ST MA 3 1.8, 3.6 FR VII.b</p>	<p>Student Edition: 325 #27, 555 #27-#29, 638-642, 644-649, 651-656, 663 #17, #18 <i>Cross-Curricular Project</i> 23, 289, 623 <i>Graphing Calculator Lab</i> 643, 650 <i>Mid-Chapter Quiz</i> 658 <i>Spreadsheet Lab</i> 657</p> <p>Teacher Wraparound Edition: AE 639, 640, 645, 646, 653; DI 652; PA 649</p>
2. Select and use appropriate statistical methods to analyze data	
A. Describe and analyze data	
<p>find, use and interpret <u>measures of center</u> and spread, including ranges and <u>interquartile range</u></p> <p>ST MA 3 3.4</p>	<p>Student Edition: 274-279, 284, 296 #54, 300 #28, #29, 631 #47-#49, 633-637, 638-639 #1, 691, 798 #13, 805 #2 <i>Graphing Calculator Lab</i> 280 <i>Practice Test</i> 285 #25 <i>Standardized Test Practice</i> 286 #6, 287 #13</p> <p>Teacher Wraparound Edition: AA 285; AE 276, 634, 635; PA 279</p>
B. Compare data representations	
<p>compare different representations of the same data and evaluate how well each representation shows important aspects of the data</p> <p>ST MA 3 3.6 FR VII.d</p>	<p>Student Edition: 61-66, 213 #75-#76, 628-631, 638-642, 644-648, 651-656, 691-693, 805 <i>Graphing Calculator Lab</i> 67-68, 643 <i>Spreadsheet Lab</i> 657 <i>Standardized Test Practice</i> 75 #13</p> <p>Teacher Wraparound Edition: AE 627; DI 652; FMC 653</p>
C. Represent data algebraically	

STANDARDS	PAGE REFERENCES
3. Develop and evaluate inferences and predictions that are based on data	
A. Develop and evaluate inferences	
use observations about differences between samples to make <u>conjectures</u> about the populations from which the samples were taken ST MA 3 3.5 FR VII.e	Student Edition: 345 #4, 346 #13, #14 <i>Algebra Lab</i> 307 <i>Cross-Curricular Project</i> 289 Teacher Wraparound Edition: DI 344
B. Analyze basic statistical techniques	
4. Understand and apply basic concepts of probability	
A. Apply basic concepts of probability	
use models to compute the probability of an event ST MA 3, 6 3.3 FR VII.h & g, X.c	Student Edition: 665-669, 670-674, 680 #33, #34, 687 #41, 693, 694 <i>Algebra Lab</i> 675 Teacher Wraparound Edition: A 674; AE 671
B. Use and describe compound events	
GRADE 8	
Number and Operations	
1. Understand numbers, ways of representing numbers, relationships among numbers and number systems	
A. Read, write and compare numbers	
compare and order rationals and percents, including finding their approximate locations on a number line ST MA 5 3.3 FR IX.b	Student Edition: 78-82, 117, 230-232, 237 #42-#49, 238 #56, 258, 259, 260, 272 #58-#59, 315, 327, 470, 665, 742 <i>Mid-Chapter Quiz</i> 98 #6, #7 <i>Practice Test</i> 119, 223 #29, #30 <i>Reading Math</i> 301 <i>Standardized Test Practice</i> 354 #5, 415 #9 Teacher Wraparound Edition: AE 79; COI 79; DI 80, 229; FMC 226E, 231; PA 233; TNT 87

STANDARDS	PAGE REFERENCES
B. Represent and use rational numbers	
<p>use fractions, decimals and percents to solve problems</p> <p>ST MA 1 3.4</p> <p>FR V.d</p>	<p>Student Edition:</p> <p>27 #1, 231 #6, 240 #4, 247 #5, 253 #42-#44, 315 #6, 316, 329 #3, 335, 341, 350, 667 #4, 797-799</p> <p><i>Cross-Curricular Project</i> 177</p> <p><i>Mid-Chapter Quiz</i> 146 #2, 256 #11, #18, 319</p> <p><i>Spreadsheet Lab</i> 337</p> <p><i>Standardized Test Practice</i> 74 #4, 286 #3, 287 #9</p> <p>Teacher Wraparound Edition:</p> <p>PA 254</p>
C. Compose and decompose numbers	
<p>recognize equivalent representations for the same number and generate them by <u>decomposing and composing numbers</u>, including scientific notation</p> <p>ST MA 1 3.6</p> <p>FR V.b</p>	<p>Student Edition:</p> <p>180-184, 186-190, 191-195, 200 #45, #46, 203-207, 209-213, 214-217, 222</p> <p><i>Practice Test</i> 223 #25-#30</p> <p><i>Reading Math</i> 201</p> <p><i>Standardized Test Practice</i> 224 #2, #5, 225 #12, 286 #5, 355 #8, #11</p> <p>Teacher Wraparound Edition:</p> <p>AA 223; AE 181, 215; DI 192, 215; EA 188; FMC 204, 216; PA 318</p>
D. Classify and describe numeric relationships	
<p>use <u>factors</u> and <u>multiples</u> to describe relationships between and among numbers and justify characteristics of numbers</p> <p>ST MA 5 1.10</p> <p>FR IX.c</p>	<p>Student Edition:</p> <p>191-195, 200 #45-#46, 213 #69, 221, 257-261, 283</p> <p><i>Algebra Lab</i> 262</p> <p><i>Mid-Chapter Quiz</i> 202 #13-#16</p> <p><i>Reading Math</i> 255</p> <p>Teacher Wraparound Edition:</p> <p>AA 223; DI 192; EA 188</p>

STANDARDS	PAGE REFERENCES
2. Understand meanings of operations and how they relate to one another	
A. Represent operations	
B. Describe effects of operations	
describe the effects of multiplication and division on integers ST MA 1 3.4, 4.1 FR V.a	Student Edition: 100-104, 106-110, 115 #61-#66, 118, 123 #1-#6, 795 <i>Algebra Lab</i> 99, 105 <i>Practice Test</i> 119 #14-#21, #22 Teacher Wraparound Edition: AE 101, 107; FMC 107
C. Apply properties of operations	
apply properties of operations to rational numbers, including order of operations and inverse operations ST MA 5 1.6, 1.10 FR IX.e	Student Edition: 32, 43-47, 59 #62, 71, 124-128, 136, 468 #46-#48, 762 <i>Key Concepts</i> 69 <i>Practice Test</i> 73 #5-#7 <i>Standardized Test Practice</i> 75 #9 Teacher Wraparound Edition: AA 119; AE 44; DI 204; FMC 33, 45, 137; PA 30; PC 24H
D. Apply operations on real and complex numbers	
apply the relationship between squares and square roots and cubes and cube roots to solve a problem ST MA 5 1.6, 3.4 FR IX.f	For discussion of square roots, see the following pages. Student Edition: 464-468, 504 <i>Algebra Lab</i> 462-463

STANDARDS	PAGE REFERENCES
3. Compute fluently and make reasonable estimates	
A. Describe or represent mental strategies	
B. Develop and demonstrate fluency	
C. Compute problems	
apply all operations on rational numbers ST MA 1 1.10, 3.3 FR V.a	Student Edition: 27 #1, 86-90, 93-97, 100-104, 104 #69-#71, 106-110, 117, 239-244, 245-249, 250-254, 263-267, 283-284, 745, 795, 797, 798 <i>Algebra Lab</i> 84-85, 92, 105 <i>Cross-Curricular Project</i> 177 <i>Mid-Chapter Quiz</i> 98, 256 <i>Practice Test</i> 119 <i>Standardized Test Practice</i> 74 #4, 121 #4, 224 #4, 457 #10 Teacher Wraparound Edition: AE 87, 94, 107, 240, 251, 265; FMC 27, 87, 94, 101, 107, 241; PA 97
D. Estimate and justify solutions	
estimate and justify the results of all operations on rational numbers ST MA 1 3.3, 4.1 FR V.e & h	Student Edition: 89 #41, 166 #37, #38, 215 #3, 217 #36, 250 #1, 265 #4, 331 #43, 401 #36 <i>Practice Test</i> 173 #21 <i>Standardized Test Practice</i> 120 #4 Teacher Wraparound Edition: PA 90
E. Use proportional reasoning	
solve problems involving proportions, such as scaling and finding equivalent ratios ST MA 1 3.3 FR V.c & f	Student Edition: 302-306, 308-312, 324-326, 497-502, 506, 799 <i>Algebra Lab</i> 307 <i>Mid-Chapter Quiz</i> 319 #10, #13, #14 <i>Standardized Test Practice</i> 354 #1, 508 #1 Teacher Wraparound Edition: AE 309, 310, 498; FMC 303; PA 312

STANDARDS	PAGE REFERENCES
Algebraic Relationships	
1. Understand patterns, relations and functions	
A. Recognize and extend patterns	
B. Create and analyze patterns	
<p>generalize patterns represented <u>graphically</u> or <u>numerically</u> using words or <u>symbolic rules</u>, including <u>recursive notation</u></p> <p>ST MA 4 1.6, 3.6 FR VIII.4.b</p>	<p>Student Edition: 27 #1, 36 #55-#60, 63 #3, 158-161, 189 #45, 194 #43, #44, 209, 297 <i>Mid-Chapter Quiz</i> 319 #6, #7 <i>Practice Test</i> 173 #23 <i>Standardized Test Practice</i> 75 #7, 174-175</p> <p>Teacher Wraparound Edition: AE 27, 159; DI 125</p>
C. Classify objects and representations	
<p>compare and contrast various forms of <u>representations</u> of patterns</p> <p>ST MA 4 1.6 FR VIII.3.b</p>	<p>Student Edition: 63 #3, 65, 139 #30, #31, 161 #34, 180, 184 #71, 215 #3, 799 #3, 805 <i>Graphing Calculator Lab</i> 67-68 <i>Mid-Chapter Quiz</i> 319 #6, #7 <i>Practice Test</i> 353 #5 <i>Standardized Test Practice</i> 75 #13, 174 #1, 175 #9, 737 #9</p> <p>Teacher Wraparound Edition: AE 64</p>
D. Identify and compare functions	
<p>compare <u>properties of linear functions</u> between or among tables, graphs and equations</p> <p>ST MA 4 1.6, 3.6 FR VIII.b & c</p>	<p>Student Edition: 359-363, 365-369, 409, 800 <i>Graphing Calculator Lab</i> 395-396 <i>Mid-Chapter Quiz</i> 382 #16</p> <p>Teacher Wraparound Edition: FMC 367; PA 363</p>

STANDARDS	PAGE REFERENCES
E. Describe the effects of parameter changes	
2. Represent and analyze mathematical situations and structures using algebraic symbols	
A. Represent mathematical situations	
<p>use <u>symbolic algebra</u> to represent and solve problems that involve linear relationships, including <u>recursive</u> relationships</p> <p>ST MA 4 1.6, 3.1 FR VIII.2.e</p>	<p>Student Edition: 365-369, 376-381, 389 #35</p> <p>Teacher Wraparound Edition: AE 377; FMC 367; PA 369</p>
B. Describe and use mathematical manipulation	
<p>generate equivalent forms for linear expressions</p> <p>ST MA 4 3.6 FR VIII.a</p>	<p>Linear equations are found on the following pages.</p> <p>Student Edition: 365-369, 397</p>
C. Utilize equivalent forms	
D. Utilize systems	
3. Use mathematical models to represent and understand quantitative relationships	
A. Use mathematical models	
<p><u>model</u> and solve problems, using multiple representations such as graphs, tables, equations or inequalities</p> <p>ST MA 4 1.6, 3.6 FR VIII.b</p>	<p>Student Edition: 51 #8, #9, 66 #35, #36, 109 #30, #31, 113 #3, 139 #30, #31, 162-167, 420-423, 424-428, 430-434, 435-439, 441-445, 446-449</p> <p><i>Algebra Lab</i> 320-321, 358, 418-419</p> <p><i>Standardized Test Practice</i> 457 #14</p> <p>Teacher Wraparound Edition: AA 413; AE 159; FMC 164; I 142; PA 369, 450</p>
4. Analyze change in various contexts	
A. Analyze change	
<p>analyze the nature of changes (including slope and intercepts) in quantities in linear relationships</p> <p>ST MA 2, 4 1.6, 4.1 FR VI.I, VIII.c</p>	<p>Student Edition: 371-375, 376-381, 384-389, 391-394, 407 #24-#26, 410, 800 #7, 826 #10</p> <p><i>Algebra Lab</i> 383</p> <p><i>Graphing Calculator Lab</i> 390</p> <p><i>Practice Test</i> 413 #17, #18</p> <p>Teacher Wraparound Edition: A 375, 393; AE 372, 373, 386; DI 378; FMC 373, 378; PA 381</p>

STANDARDS	PAGE REFERENCES
Geometric and Spatial Relationships	
1. Analyze characteristics and properties of two- and three-dimensional geometric shapes and develop mathematical arguments about geometric relationships	
A. Describe and use geometric relationships	
<p>describe, classify and generalize relationships between and among types of a) 2-dimensional objects and b) 3-dimensional objects using their defining <u>properties</u> including</p> <ul style="list-style-type: none"> ▶ Pythagorean Theorem ▶ <u>cross-section</u> of a 3-dimensional object results in what 2-dimensional shape <p>ST MA 2 1.6, 3.6 FR VI.c</p>	<p>Student Edition: 485-490, 502 #34-#36, 505, 575-581, 597-598, 602, 608-613, 618 <i>Algebra Lab</i> 483, 484 <i>Geometry Lab</i> 607 <i>Standardized Test Practice</i> 620 #4</p> <p>Teacher Wraparound Edition: AA 619; AE 486; PA 490</p>
B. Apply geometric relationships	
<p>apply relationships between the <u>corresponding sides</u> and <u>corresponding areas</u> of <u>similar polygons</u> to solve problems</p> <p>ST MA 2 1.6, 3.6 FR VI.c</p>	<p>Student Edition: 497-498, 501 #22, 608-613, 618 <i>Geometry Lab</i> 607</p>
C. Compose and decompose shapes	
2. Specify locations and describe spatial relationships using coordinate geometry and other representational systems	
A. Use coordinate systems	
<p>use coordinate geometry to analyze <u>properties of right triangles</u> and quadrilaterals</p> <p>ST MA 2 3.6 FR VI.f</p>	<p>Student Edition: 489 #35-#38, 526, 527 #3, 529 #28 <i>Standardized Test Practice</i> 571 #12</p> <p>Teacher Wraparound Edition: AE 527</p>
3. Apply transformations and use symmetry to analyze mathematical situations	
A. Use transformations on objects	
<p>reposition shapes under <u>formal</u> transformations, such as reflection, rotation and translation</p> <p>ST MA 2 3.6 FR VI.b</p>	<p>Student Edition: 524-530 <i>Geometry Lab</i> 531 <i>Mid-Chapter Quiz</i> 537 #9 <i>Standardized Test Practice</i> 571 #12</p> <p>Teacher Wraparound Edition: AE 526; DI 525</p>

STANDARDS	PAGE REFERENCES
B. Use transformations on functions	
describe the relationship between the scale factor and the area of the image using a <u>dilation</u> (stretching/shrinking) ST MA 2 3.6 FR VI.b & g	Student Edition: 497, 498 #16, 501 #23, 527 #3 <i>Spreadsheet Lab</i> 563
C. Use symmetry	
identify the number of rotational symmetries of regular polygons ST MA 2 1.6 FR VI.b	The following lab could be adapted to meet this standard. Student Edition: <i>Geometry Lab</i> 531 Also see Glencoe's <i>Mathematics: Applications and Concepts Course 3</i> © 2006 page 287.
4. Use visualization, spatial reasoning and geometric modeling to solve problems	
A. Recognize and draw three-dimensional representations	
create <u>isometric drawings</u> from a given <u>net plan</u> ST MA 2 3.3 FR VI.a	After providing the definition of <i>net plan</i> , the following pages could be use to meet this standard. Student Edition: 577, 578 <i>Mid-Chapter Quiz</i> 595 #6 Teacher Wraparound Edition: <i>AE</i> 577
B. Draw and use visual models	
draw or use <u>visual models</u> to represent and solve problems ST MA 2 3.1 FR VI.d	Student Edition: 519 #2, 528, 529 #32, 543 #35, 555 #33, 579 #17, #18, 600 #7-#16 <i>Geometry Lab</i> 544, 596 <i>Standardized Test Practice</i> 509 #13 Teacher Wraparound Edition: <i>AA</i> 507; <i>DI</i> 493, 499, 514, 525, 577; <i>PA</i> 502, 530

STANDARDS	PAGE REFERENCES
Measurement	
1. Understand measurable attributes of objects and the units, systems and processes of measurement	
A. Determine unit of measurement	
B. Identify equivalent measures	
<p>identify the equivalent volume measures within a system of measurement (e.g., m^3 to cm^3)</p> <p>ST MA 2 1.6 FR VI.i</p>	<p>The following pages can be used with the conversion chart, found inside the back cover of the text, to meet this standard.</p> <p>Student Edition: 583-588, 589-594, 601 #28, 616-617 <i>Mid-Chapter Quiz</i> 595 #15 <i>Standardized Test Practice</i> 621 #10</p>
C. Tell and use units of time	
D. Count and compute money	
2. Apply appropriate techniques, tools and formulas to determine measurements	
A. Use standard or non-standard measurement	
B. Use angle measurement	
<p>use tools to determine the measure of <u>reflex</u> angles to the nearest degree</p> <p>ST MA 2 1.4, 3.2 FR VI.f</p>	<p>After providing the definition of <i>reflex angle</i>, the following pages could be used to meet this standard.</p> <p>Student Edition: 553, 556 #41 Teacher Wraparound Edition: T 551</p>
C. Apply geometric measurements	
<p>describe how to solve problems involving surface area and/or volume of a rectangular or triangular prism, or cylinder</p> <p>ST MA 2 3.4, 4.1 FR VI.i & g</p>	<p>Student Edition: 584, 587-588, 599-601 Teacher Wraparound Edition: AE 584, 599; FMC 585; PC 572H</p>
D. Analyze precision	
<p>analyze <u>precision</u> and accuracy in measurement situations and determine number of significant digits</p> <p>ST MA 2 1.7, 3.8 FR VI.f</p>	<p>Student Edition: <i>Reading Math</i> 614</p>

STANDARDS	PAGE REFERENCES
E. Use relationships within a measurement system	
convert square or cubic units to equivalent square or cubic units within the same system of measurement ST MA 2 1.6, 1.10 FR VI.e & f	The following pages can be used with the conversion chart, found inside the back cover of the text, to meet this standard. Student Edition: 546 #2, 548-549, 553 #3, 561, 583-585, 590, 599, 605, 804 <i>Mid-Chapter Quiz</i> 595 #7-#10
Data and Probability	
1. Formulate questions that can be addressed with data and collect, organize and display relevant data to answer them	
A. Formulate questions	
formulate questions, design studies and collect data about a characteristic ST MA 3 1.2 FR VII.a	Student Edition: 648 #23, 651-656 <i>Algebra Lab</i> 273, 307 <i>Cross-Curricular Project</i> 23, 167, 623 <i>Mid-Chapter Quiz</i> 658 #13-#16 Teacher Wraparound Edition: AE 653; DI 344, 385, 652
B. Classify and organize data	
C. Represent and interpret data	
select, create and use appropriate graphical representation of data (including <u>scatter plots</u>) ST MA 3 1.8, 3.6	Student Edition: 61-66, 72, 325 #27, 555 #27-#29, 638-642, 644-649, 651-656, 663 #17-#18, 794, 805 <i>Algebra Lab</i> 60 <i>Cross-Curricular Project</i> 23, 289, 623 <i>Graphing Calculator Lab</i> 67-68, 643, 650 <i>Mid-Chapter Quiz</i> 658 <i>Spreadsheet Lab</i> 657 Teacher Wraparound Edition: AE 62, 63

STANDARDS	PAGE REFERENCES
2. Select and use appropriate statistical methods to analyze data	
A. Describe and analyze data	
<p>find, use and interpret <u>measures of center</u>, <u>outliers</u> and spread, including range and <u>interquartile range</u></p> <p>ST MA 3 3.4 FR VII.c</p>	<p>Student Edition: 274-279, 284, 296 #54, 300 #28, #29, 631 #47-#49, 633-637, 638-639 #1, 691, 798 #13, 805 #2</p> <p><i>Graphing Calculator Lab</i> 280 <i>Practice Test</i> 285 #25 <i>Standardized Test Practice</i> 286 #6, 287 #13</p> <p>Teacher Wraparound Edition: AA 285; AE 276, 634, 635; PA 279</p>
B. Compare data representations	
<p>compare different representations of the same data and evaluate how well each representation shows important aspects of the data</p> <p>ST MA 3 3.6 FR VII.d</p>	<p>Student Edition: 61-66, 213 #75-#76, 628-631, 638-642, 644-648, 651-656, 691-693, 805</p> <p><i>Graphing Calculator Lab</i> 67-68, 643 <i>Spreadsheet Lab</i> 657 <i>Standardized Test Practice</i> 75 #13</p> <p>Teacher Wraparound Edition: AE 627; DI 652; FMC 653</p>
C. Represent data algebraically	
3. Develop and evaluate inferences and predictions that are based on data	
A. Develop and evaluate inferences	
<p>make <u>conjectures</u> about possible relationships between 2 characteristics of a sample on the basis of scatter plots of the data and approximate lines of fit</p> <p>ST MA 3 3.5 FR VII.e</p>	<p>Student Edition: 63 #3, 65, 403-407, 412</p> <p><i>Graphing Calculator Lab</i> 67-68 <i>Mid-Chapter Quiz</i> 413 #19, #20</p> <p>Teacher Wraparound Edition: DI 404; PA 407</p>
B. Analyze basic statistical techniques	

STANDARDS	PAGE REFERENCES
4. Understand and apply basic concepts of probability	
A. Apply basic concepts of probability	
<p>make <u>conjectures</u> (based on theoretical probability) about the results of experiments</p> <p>ST MA 3 3.5 FR VII.g</p>	<p>Student Edition: 665-669 <i>Algebra Lab</i> 688-689 <i>Graphing Calculator Lab</i> 681</p> <p>Teacher Wraparound Edition: AE 666</p>
B. Use and describe compound events	