



Mathematics

Applications and Concepts
Course 3
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STANDARDS		PAGE REFERENCES
Numbers, Number Sense, and Computation		
<p>Content Standard 1.0: <i>To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will accurately calculate, use estimation techniques, number relationships, operation rules, and algorithms; they will determine the reasonableness of answers and the accuracy of solutions.</i></p> <p>By the end of Grade 8, students know and are able to do everything required in the previous grades and:</p>		
<p>1.8.1 Read, write, add, subtract, multiply, and divide real numbers in various forms including radicals, exponential, and scientific notation. Ec 2.8.2; Ec 9.8.4; H 3.8.4</p>	I/S	<p>Student Edition: 11-15, 23-27, 28-31, 34-38, 71-75, 76-80, 82-85, 88-91, 98-101, 104-107, 116-119 <i>The Game Zone</i> 87 <i>Hands-on Lab</i> 102-103 Teacher Wraparound Edition: A 27, 75, 101, 107; B 34, 88; DI 117; I-CE 29, 77-78, 83, 99</p>
<p>1.8.2 Compute with rational and irrational numbers to solve a variety of problems including rates, recipes, unit costs, and percents (e.g., discounts, interest, sale, prices, commissions, taxes). Ec 9.8.4</p>	E/S	<p>Student Edition: 156-159, 160-164, 206-209, 210-214, 216-219, 220-223, 232-235, 236-240, 241-244 <i>Spreadsheet Investigation</i> 165, 245 <i>The Game Zone</i> 225 Teacher Wraparound Edition: A 209, 214, 219, 223, 240; DI 157; I-CE 207, 217, 233; TNT 157</p>

STANDARDS		PAGE REFERENCES
1.8.3 Explain and apply number theory and the properties of real numbers to solve problems. H 3.8.4	I/L	Student Edition: 11-15, 25, 28, 31 #53, 45-49, 50-51 <i>Study Guide and Review</i> 54 Teacher Wraparound Edition: A 15, 31; DI 133; I-CE 13
1.8.6 Compare and order rational numbers.	E/S	Student Edition: 17-21, 27 #48-51, 67-70, 75 #42-45 <i>Mid-Chapter Practice Test</i> 32 #6-8, 86 #7-10 <i>The Game Zone</i> 33 Teacher Wraparound Edition: A 70; B 17, 67; DI 68; I-CE 18, 68
1.8.7 Estimate in problem-solving situations and in practical applications; determine the reasonableness of the answer and verify the results.	E/S	Student Edition: 120-122, 223 #50-53, 228-231, 235 #33, 240 #38-41 <i>The Game Zone</i> 131 <i>Study Guide and Review</i> 248 #45-50 <i>Prerequisite Skills</i> 600-601 Teacher Wraparound Edition: A 122, 231; B 120, 228; DI 120; I-CE 121, 229
1.8.9 Explain the relationship among fractions, decimals, and percents; translate among various representations of equal numbers (e.g., from fractions to decimals to percents, various forms of “1” such as 3/3 or 16/16) to solve problems efficiently.	E/S	Student Edition: 62-66, 67-70, 210-214, 219 #42-46, 223 #46-49 <i>Mid-Chapter Practice Test</i> 224 #1, 3-10 <i>The Game Zone</i> 225 Teacher Wraparound Edition: A 66, 214; B 210; DI 211; I-CE 63-64, 68, 211
Patterns, Functions, and Algebra		
Content Standard 2.0: <i>To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will use various algebraic methods to analyze, illustrate, extend, and create numerous representations (words, numbers, tables, and graphs) of patterns, functions, and algebraic relations as modeled in practical situations.</i>		
2.8.1 Use inductive reasoning to find the missing term in number and geometric patterns and to generalize basic patterns to the nth term, with and without calculators; use written, oral, and symbolic language to identify and describe patterns, sequences , and functions .	E/S	Student Edition: 98-101, 512-515, 517-520 <i>Problem-Solving Strategy</i> 96-97 <i>Hands-on Lab</i> 304-305, 516 Teacher Wraparound Edition: A 97, 516, 521; DI 99, 513; I-CE 96, 518

STANDARDS		PAGE REFERENCES
2.8.2 Translate among verbal descriptions, graphic, tabular, and algebraic representations of mathematical situations. Ec 3.8.2; S 1.8.1; S 1.8.4; S 14.8.6; S 20.8.2	E/S	Student Edition: 11-15, 39-42, 98-101, 512-515, 517-520, 539-542, 548-551 <i>Hands-on Lab</i> 102-103, 304-305 Teacher Wraparound Edition: A 42, 101, 547; B 39, 544; DI 12, 40, 99, 545; I-CE 40, 545
2.8.3 Identify, model, describe, and evaluate relationships, including functions, using a variety of methods with and without technology.	I/S	Student Edition: 517-520, 522-525, 560-563 <i>Hands-on Lab</i> 521 <i>The Game Zone</i> 531 <i>Graphing Calculator Investigation</i> 532 Teacher Wraparound Edition: A 519, 525, 563; B 517, 522, 560; DI 518, 523, 560; I-CE 518, 523, 561
2.8.4 Add and subtract binomials ; describe the connection between the algebraic process and the arithmetic process.	I/S	Student Edition: 469-473, 484-487 <i>Hands-on Lab</i> 468, 482-483 Teacher Wraparound Edition: A 473, 487; B 469; I-CE 470-471, 485
2.8.5 Describe how a change in one variable of a mathematical relationship affects the remaining variables using various tools and methods. Ec 3.8.2; Ec 3.8.3; H 3.8.4	I/S	Student Edition: 517-520, 522-525, 544-547 <i>Hands-on Lab</i> 521 Teacher Wraparound Edition: A 525, 545, 547; B 517; DI 518
2.8.6 Model, identify, and solve linear equations and inequalities; relate this process to the order of operations. H 3.8.4	E/S	Student Edition: 544-547, 548-551 <i>Study Guide and Review</i> 554 #39-51 <i>Practice Test</i> 555 #18-20 Teacher Wraparound Edition: A 547, 551; B 544, 548; DI 545; I-CE 545, 549
2.8.7 Solve simple linear equations and connect that process to the order of operations. H 3.8.4	I/S	Student Edition: 11-15, 45-49, 469-473, 544-547 <i>Graphing Calculator Investigation</i> 532 Teacher Wraparound Edition: A 547; B 544

STANDARDS		PAGE REFERENCES
Measurement		
Content Standard 3.0: <i>To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will use appropriate tools and techniques of measurement to determine, estimate, record, and verify direct and indirect measurements.</i>		
3.8.2 Demonstrate an understanding of precision, error, and tolerance in measurement using the appropriate measurement tool to the required degree of accuracy. S 23.8.5	I/S	Student Edition: 319-323, 358-362 <i>Hands-on Mini Lab</i> 256, 272, 300, 319 <i>Hands-on Lab</i> 261, 266, 271, 283 Teacher Wraparound Edition: A 362; B 358; DI 359; I-CE 359
3.8.3 Select and apply appropriate formulas to solve problems; identify the relationship between changes in area and volume and changes in linear measures of figures.	E/S	Student Edition: 314-318, 319-323, 326-329, 335-339, 342-345 <i>The Game Zone</i> 341 <i>Spreadsheet Investigation</i> 356-357 <i>Prerequisite Skills</i> 613 Teacher Wraparound Edition: A 318, 329, 338; B 335; I-CE 315-316, 336-337
3.8.5 Apply ratios and proportions to calculate rates and as a method of indirect measure (e.g., miles per hour, cost per unit). Ec 2.8.2; S 23.8.1	E/S	Student Edition: 178-182, 184-187, 188-191 <i>Hands-on Lab</i> 183, 192-193 Teacher Wraparound Edition: A 187, 191; B 184, 188; DI 179, 185, 189; I-CE 179-180, 185, 189
Spatial Relationships and Geometry		
Content Standard 4.0: <i>To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will identify, represent, explain, verify, and apply spatial relationships and geometric properties.</i>		
4.8.2 Apply the properties of equality and proportionality to solve problems involving congruent or similar shapes. H 3.8.4	E/S	Student Edition: 178-182, 184-187, 188-191, 279-282 <i>Hands-on Lab</i> 183, 192-193, 283 Teacher Wraparound Edition: A 187, 191; B 184, 188; DI 179, 185, 189; I-CE 179-180, 185, 189, 280
4.8.3 Use coordinate geometry and models to change scale (enlarge and reduce).	I/S	Student Edition: 184-187, 194-197 <i>Study Guide and Review</i> 200 <i>Practice Test</i> 201 #13 <i>Standardized Test Practice</i> 203 #17 Teacher Wraparound Edition: A 187, 197; B 184, 194; DI 185, 195; I-CE 185, 195

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4.8.5 Use coordinate geometry to represent and interpret relationships defined by equations and formulas (including distance, midpoint, and slope), with and without technology.	I/S	Student Edition: 522-525, 526-529, 533-536 <i>Hands-on Lab</i> 521 <i>Mid-Chapter Practice Test</i> 530 #11-15 Teacher Wraparound Edition: A 525, 529; DI 527; I-CE 534
4.8.6 Form generalizations and validate conclusions about properties of geometric shapes including parallel lines, perpendicular lines, bisectors, triangles, and quadrilaterals.	I/S	Student Edition: 256-259, 262-265, 267-269, 272-275 <i>Hands-on Lab</i> 261, 266, 271 Teacher Wraparound Edition: A 259, 265, 269, 275; B 262; DI 257, 263, 268; I-CE 263
H 3.8.4		
4.8.7 Verify and explain the Pythagorean Theorem using various methods (e.g., using grid paper, applying it to a missing side of a right triangle); determine missing sides and angles of triangles based on properties of their sides and angles.	I/S	Student Edition: 132-136, 137-139, 262-265, 267-269 Teacher Wraparound Edition: A 136, 265, 269; B 137, 267; DI 138, 268; I-CE 133-134, 138
H 3.8.4		
4.8.8 Use hand tools, technology, and models to construct figures and bisect angles and line segments; distinguish among constructions , sketches and drawings.	W/L	Student Edition: <i>Hands-on Mini Lab</i> 256 <i>Hands-on Lab</i> 261, 266, 271, 283
Data Analysis		
Content Standard 5.0: <i>To solve problems, communicate, reason, and make connections within and beyond the field of mathematics, students will collect, organize, display, interpret, and analyze data to determine statistical relationships and probability projections.</i>		
5.8.1 Organize, display, read, and analyze data, with and without technology, using a variety of displays including box and whisker plots. G 1.8.4; G 7.8.3; G 7.8.4; H 2.8.3; S 22.5.2	E/S	Student Edition: 420-424, 426-429, 430-433, 442-445, 446-449, 450-453 <i>Graphing Calculator Investigation</i> 425 Teacher Wraparound Edition: B 426; I-CE 447-448

STANDARDS		PAGE REFERENCES
5.8.2 Find the theoretical probability of an event using different counting methods (e.g., tree diagrams , sample spaces , and organized lists) and compare those results with actual (experimental) results, differentiating between the probability of an event and the odds of an event. S 22.8.3	I/S	Student Edition: 374-377, 380-383, 396-399, 400-403, 406-409 <i>Problem-Solving Strategy</i> 378-379 <i>The Game Zone</i> 395 Teacher Wraparound Edition: A 377, 383, 399, 403; B 374, 396; DI 375, 400; I-CE 375, 381, 401, 407
5.8.3 Find the number of combinations possible in given situations using a variety of counting methods.	I/S	Student Edition: 388-391, 399 #30-33 <i>Hands-on Lab</i> 392-393 <i>Study Guide and Review</i> 411 #28-34 Teacher Wraparound Edition: A 391; B 388; DI 389; I-CE 389
5.8.5 Evaluate arguments that are based on data analysis for accuracy and validity; analyze the effect a change of scale or a change of format will have on statistical charts and graphs. S 19.8.1	E/S	Student Edition: 421 Ex. 3, 430-433, 446-449, 450-453, 457 #23 <i>Study Guide and Review</i> 460 #26-30 Teacher Wraparound Edition: A 453; B 450; DI 451; I-CE 451
5.8.6 Formulate reasonable inferences and projections based on interpolations and extrapolations of data to solve problems. S 20.8.2; S 23.8.6	I/S	Student Edition: 401, 406-409 <i>Hands-on Lab</i> 22 Teacher Wraparound Edition: I-CE 407
Problem Solving		
Process Standard 6.0: <i>Students will develop their ability to solve problems by engaging in developmentally appropriate problem-solving opportunities in which there is a need to use various approaches to investigate and understand mathematical concepts in order to: formulate their own problems; find solutions to problems from everyday situations; develop and apply strategies to solve a wide variety of problems; and integrate mathematical reasoning, communication and connections.</i>		
6.1 Select, modify, develop, and apply strategies to solve a variety of mathematical and practical problems and to investigate and understand mathematical concepts. S 1.2.3; S 1.5.1; S 1.8.1; S 1.8.4; S 1.12.2; S 1.12.4; S 2.12.1; S 3.2.3; S 10.5.2; S 14.8.6; S 19.12.2; S 21.3.1	E/S	Student Edition: 6-10 <i>Problem-Solving Strategy</i> 43-44, 96-97, 123-124, 176-177, 226-227, 276-277, 324-325, 378-379, 418-419, 488-489, 537-538, 588-589 Teacher Wraparound Edition: B 6; DI 17

STANDARDS		PAGE REFERENCES
6.2 Apply previous experience and knowledge to new problem-solving situations.	E/S	Student Edition: <i>Hands-on Lab 22</i> <i>Problem-Solving Strategy 324-325</i> <i>Extending the Lesson 334, 351, 362</i> <i>Prerequisite Skills 600-615</i> Teacher Wraparound Edition: B 23, 67; DI 35, 161, 325
6.5 Verify, interpret, and evaluate results with respect to the original problem situation, determining an efficient strategy for the given situation. S 21.5.3; S 21.12.3	E/S	Student Edition: 6-10 <i>Problem-Solving Strategy 43-44</i> Teacher Wraparound Edition: A 44; B 43
6.6 Try more than one strategy when the first strategy proves to be unproductive.	E/L	Student Edition: 6-10 <i>Problem-Solving Strategy 324-325, 488-489</i> Teacher Wraparound Edition: A 489; B 488; DI 489
6.7 Apply multi-step, integrated, mathematical problem-solving strategies, persisting until a solution is found or until it is clear that no solution exists. S 19.12.2	E/S	Student Edition: 6-10 <i>Problem-Solving Strategy 43-44, 96-97, 123-124, 176-177, 226-227, 276-277, 324-325, 378-379, 418-419, 488-489, 537-538, 588-589</i> Teacher Wraparound Edition: B 6; DI 17
6.9 Generalize solutions and strategies from earlier problems to new problem situations.	E/L	Student Edition: <i>Hands-on Lab 22</i> <i>Problem-Solving Strategy 324-325</i> <i>Extending the Lesson 334, 351, 362</i> <i>Prerequisite Skills 600-615</i> Teacher Wraparound Edition: B 23, 67; DI 35, 161, 325
6.10 Interpret and solve a variety of mathematical problems by paraphrasing, identifying necessary and extraneous information, selecting and justifying efficient methods and/or strategies, and ensuring the answer is reasonable.	E/S	Student Edition: 6-10 <i>Problem-Solving Strategy 226-227</i> Teacher Wraparound Edition: A 227; B 226; I-CE 226

STANDARDS		PAGE REFERENCES
6.11 Apply combinations of proven strategies and previous knowledge to solve non-routine problems.	E/L	Student Edition: 6-10, 228-231 <i>Problem-Solving Strategy</i> 276-277 Teacher Wraparound Edition: A 231; P/A 277
6.13 Use technology, including calculators, to solve problems and verify solutions. S 24.5.5; S 24.8.5	E/L	Student Edition: 63-64, 67, 99, 117 Ex. 4, 320 <i>Study Tip</i> 12, 105, 121 <i>Spreadsheet Investigation</i> 165, 245, 356, 439 <i>Graphing Calculator Investigation</i> 404-405, 425, 532, 543, 564
6.14 Use technology, including calculators, to investigate, define, and describe quantitative relationships such as patterns and functions. G 7.12.3; S 1.5.1; S 1.12.2; S 1.12.4; S 14.8.6; S 24.5.5; S 24.8.5	E/L	Student Edition: <i>Graphing Calculator Investigation</i> 532, 543, 564
Mathematical Communication		
Process Standard 7.0: <i>Students will develop their ability to communicate mathematically by solving problems in which there is a need to obtain information from the real world through reading, listening, and observing in order to: translate this information into a mathematical language and symbols; process this information mathematically; and present results in written, oral and visual formats.</i>		
7.1 Discuss and exchange ideas about mathematics as a part of learning. E 10.2.3; E 10.3.3; E 10.5.3; E 10.3.1; E 10.5.1; E 10.12.1; S 23.5.2	E/L	Student Edition: 6-10, 37 #3, 47 #1 <i>Problem-Solving Strategy</i> 43 Teacher Wraparound Edition: A 10, 15, 27, 31, 42; B 6, 39; DI 51, 63
7.2 Use inquiry techniques (e.g., discussion, questioning, research, data gathering) to solve mathematical problems. E 4.2.3; E 10.2.2; E 10.3.2; E 10.5.2; E 10.8.2; E 11.2.1; E 11.3.1; E 11.5.1; E 11.8.1; E 11.12.1; E 11.2.2; S 1.5.1; S 1.8.1; S 1.8.4; S 1.12.4; S 10.5.2; S 14.8.6; S 21.3.1	E/L	Student Edition: 406-409 <i>Interdisciplinary Project</i> 3, 153, 465 <i>Hands-on Lab</i> 22 <i>Problem-Solving Strategy</i> 378-379, 418-419 Teacher Wraparound Edition: A 49; B 17, 23, 206, 374; DI 51, 443; TNT 40, 63, 408, 431

STANDARDS		PAGE REFERENCES
7.3 Read expository text to learn about mathematics. E 1.8.3; E 1.12.3; E 2.12.3; E 4.8.1; E 4.8.2; E 4.8.3	I/L	Student Edition: 75 #30, 101 #42 Teacher Wraparound Edition: B 11, 132, 194, 262, 388, 442, 565
7.6 Interpret and solve word problems without the necessity of key words or phrases.	E/S	Student Edition: 6-10, 53 #40-44 <i>Problem-Solving Strategy</i> 43-44, 96-97, 123-124, 176-177, 226-227, 276-277, 324-325 Teacher Wraparound Edition: B 45; DI 143
7.9 Model and explain mathematical relationships using oral, written, graphical, and algebraic methods. E 5.8.1; E 5.8.2; E 6.8.2; E 11.8.5; E 11.12.5; S 1.12.2; S 1.12.4; S 14.8.6; S 20.12.1; S 22.8.2; S 22.12.2	E/S	Student Edition: 125-129, 142-145 <i>Hands-on Lab</i> 141 <i>Standardized Test Practice</i> 151 #16-17 <i>Problem-Solving Strategy</i> 418-419, 537-538 Teacher Wraparound Edition: A 129; B 125; DI 126, 138, 143; TNT 138
7.10 Evaluate the effectiveness of written and oral presentations of mathematics. S 21.5.3; S 23.5.2	I/L	Student Edition: 406-409, 430-433, 450-453 Teacher Wraparound Edition: A 129, 433, 453; B 125, 430, 450; DI 123, 126, 451; I-CE 407; TNT 138, 431
7.11 Make conjectures and present arguments in discussions of mathematical ideas. S 21.5.3; S 23.5.3	E/L	Student Edition: <i>Problem-Solving Strategy</i> 488-489 <i>Mid-Chapter Practice Test</i> 490 #20 Teacher Wraparound Edition: A 145, 489, 499, 504; B 23, 488, 496; DI 489; I-CE 13
7.13 Explain and evaluate thinking about mathematical ideas and solutions. E 10.8.2; E 10.12.4; S 21.5.3	I	Student Edition: 6-10, 11-15, 132-136, 137-139 <i>Problem-Solving Strategy</i> 43-44, 276-277, 488-489 Teacher Wraparound Edition: A 15, 44, 66, 136, 145; B 11, 28, 39; DI 12, 138

STANDARDS		PAGE REFERENCES
7.15 Use everyday language to explain thinking about strategies and solutions to mathematical problems. S 21.5.3; S 23.5.3	E/L	Student Edition: 220-223 <i>Problem-Solving Strategy</i> 43-44, 96-97, 123-124, 226-227, 276-277, 378-379, 488-489 Teacher Wraparound Edition: A 27, 31, 80, 97, 101, 209, 214, 223; B 23, 216; DI 206; TNT 138
7.16 Express mathematical ideas and use them to define, compare, and solve problems orally and in writing.	E/S	Student Edition: 31 #45, 188-191, 220-223 <i>Hands-on Lab</i> 22, 102-103, 141 Teacher Wraparound Edition: A 27, 31, 80, 101, 191, 214; DI 138
7.17 Use mathematical notation to communicate and explain mathematical situations. S 21.2.1	E/L	Student Edition: 101 #42, 104-107, 137-139 <i>Problem-Solving Strategy</i> 96 <i>Hands-on Lab</i> 102-103 Teacher Wraparound Edition: A 70, 75, 97, 107; B 71, 104, 300; DI 138; I-CE 105
Mathematical Reasoning		
Process Standard 8.0: <i>Students will develop their ability to reason mathematically by solving problems in which there is a need to investigate significant mathematical ideas and construct their own learning in all content areas in order to justify their thinking; reinforce and extend their logical reasoning abilities; reflect on and clarify their own thinking; and ask questions to extend their thinking.</i>		
8.2 Justify answers and the steps taken to solve problems, with and without manipulatives and physical models. S 1.5.1; S 10.5.2; S 20.5.1	I/L	Student Edition: 6-10, 11-15, 20 #1-2, 30 #1-2 <i>Hands-on Mini Lab</i> 11, 28 <i>Study Skill</i> 16 <i>Problem-Solving Strategy</i> 43 #1-3 Teacher Wraparound Edition: A 10, 15, 27, 42; B 6, 23, 34; DI 17
8.4 Use patterns and relationships to analyze mathematical situations; draw logical conclusions about mathematical problems. Ec 3.8.2; Ec 3.8.3; Ec 9.8.4; Ec 3.12.1; Ec 3.12.2; Ec 3.12.3; Ec 3.12.4; Ec 6.12.6; G 7.12.4; S 17.3.2	E/S	Student Edition: 98-101, 512-515 <i>Problem-Solving Strategy</i> 43-44, 96-97 <i>Hands-on Lab</i> 102-103, 516 <i>Hands-on Mini Lab</i> 116 Teacher Wraparound Edition: A 97, 101, 119, 515; B 96, 512; DI 35, 96, 99

STANDARDS		PAGE REFERENCES
8.5 Follow a logical argument and judge its validity. E 4.8.4; E 4.12.4	E/L	Student Edition: 6-10, 406-409, 450-453 <i>Problem-Solving Strategy</i> 226-227 <i>Practice Test</i> 461 #13 Teacher Wraparound Edition: A 227, 453; B 406, 450; DI 167; I-CE 226
8.7 Recognize and apply deductive and inductive reasoning in both concrete and abstract contexts.	E/S	Student Edition: <i>Problem-Solving Strategy</i> 226-227, 276-277 <i>When am I ever going to use this?</i> 236 <i>Spreadsheet Investigation</i> 245 #3 Teacher Wraparound Edition: A 227, 231; B 232, 236, 276; DI 226, 276; I-CE 226, 276
8.8 Ask questions to reflect on, clarify, and extend thinking.	E/L	Student Edition: 129 #51, 135 #3, 303 #14 <i>When am I ever going to use this?</i> 125, 137, 142, 290, 435, 442 <i>Hands-on Lab</i> 141 #1-3, 434 #1-3 Teacher Wraparound Edition: A 303, 445; B 137; DI 500
8.9 Review and refine the assumptions and steps used to derive conclusions in mathematical arguments.	I/L	Student Edition: 6-10, 406-409, 450-453 <i>Problem-Solving Strategy</i> 226-227 <i>Practice Test</i> 461 #13 Teacher Wraparound Edition: A 227, 453; B 406, 450; DI 167; I-CE 226
8.10 Construct valid arguments; make and test conjectures about algebraic and geometric properties based on mathematical principles. E 10.12.4	I/L	Student Edition: <i>Problem-Solving Strategy</i> 488-489 <i>Mid-Chapter Practice Test</i> 490 #20 Teacher Wraparound Edition: A 489, 499, 504; B 488, 496; DI 489

STANDARDS		PAGE REFERENCES
Mathematical Connections		
Process Standard 9.0: <i>Students will develop the ability to make mathematical connections by solving problems in which there is a need to view mathematics as an integrated whole, identifying relationships between context strands, and integrating mathematics with other disciplines, allowing the flexibility to approach problems in a variety of ways within and beyond the field of mathematics.</i>		
9.1 Link new concepts to prior knowledge.	E/L	Student Edition: <i>Hands-on Lab 22</i> <i>Problem-Solving Strategy 324-325</i> <i>Extending the Lesson 334, 351, 362</i> <i>Prerequisite Skills 600-615</i> Teacher Wraparound Edition: B 23, 67; DI 35, 161, 325
9.2 Use mathematical ideas from one area of mathematics to explain an idea from another area of mathematics.	E/S	Student Edition: 188-191, 228-231, 326-329 <i>Hands-on Lab 192-193, 304-305, 346</i> Teacher Wraparound Edition: A 191; B 188; DI 189; I-CE 189
9.3 Use models to explain the relationship of concepts to procedures. S 1.5.1; S 1.8.1; S 1.12.2; S 1.8.4; S 1.12.4; S 10.5.2; S 14.8.6; S 20.5.1	E/S	Student Edition: 17-21, 23-24, 188-191, 347-351 <i>Hands-on Mini Lab 28, 45, 132, 216</i> <i>When am I ever going to use this? 156</i> <i>Problem-Solving Strategy 176-177</i> <i>Hands-on Lab 330</i> Teacher Wraparound Edition: A 177, 231; B 170, 176, 326, 342; DI 157, 326
9.4 Use the connections among mathematical topics to develop multiple approaches to problems. S 20.8.1	I/L	Student Edition: 326-329 <i>Problem-Solving Strategy 43-44, 96-97, 123-124, 226-227, 276-277, 324-325</i> <i>Spreadsheet Investigation 165, 356-357</i> Teacher Wraparound Edition: A 329; TNT 327
9.6 Use and analyze the connections between mathematics and other disciplines. Ec 2.8.2; Ec 2.12.4; Ec 2.12.8; H 2.8.3; H 2.12.3; S 2.12.1; S 14.12.5	I/L	Student Edition: 21 #51, 30 #30-33, 41 #18-21, 66 #42-44 <i>Interdisciplinary Project 3</i> <i>When am I ever going to use this? 17, 34, 67</i> <i>Real Life Math 18, 36</i> Teacher Wraparound Edition: A 289; I-CE 8

STANDARDS		PAGE REFERENCES
<p>9.7</p> <p>Apply mathematical thinking and modeling to solve problems that arise in other disciplines (e.g., rhythm in music and motion in science).</p> <p>S 1.5.1; S 1.8.1; S 1.12.2; S 1.8.4; S 1.12.4; S 10.5.2; S 14.8.6; S 19.12.2</p>	E/L	<p>Student Edition:</p> <p>31 #42-45, 48 #38, 60</p> <p><i>Interdisciplinary Project</i> 3</p> <p><i>When am I ever going to use this?</i> 17, 34, 62, 67</p> <p><i>Problem-Solving Strategy</i> 43-44</p> <p>Teacher Wraparound Edition:</p> <p>B 17; DI 63, 287, 315</p>
<p>9.8</p> <p>Identify, explain, and use mathematics in everyday life.</p> <p>Ec 2.3.2; Ec 2.12.12; Ec 5.2.1; Ec 5.3.1; S 24.12.2</p>	I/S	<p>Student Edition:</p> <p>14-15 #40-42, #59, 42 # 39, 49 #42-43, 182 #22, 254, 312</p> <p><i>Problem-Solving Strategy</i> 43-44, 226-227, 276-277</p> <p><i>When am I ever going to use this?</i> 82</p> <p><i>Real-Life Careers</i> 258, 316, 447, 581</p> <p>Teacher Wraparound Edition:</p> <p>B 6, 45; DI 287, 315; I-CE 7</p>