



# Mathematics

Applications and Concepts  
Course 3  
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STANDARDS	PAGE REFERENCES
<b>Cluster 1. Numbers and Operations</b>	
<b>Content Standard A: Numbers and Number Sense: Students will understand and demonstrate a sense of what numbers mean and how they are used. Students will be able to:</b>	
M1A1.8 Use numbers in a variety of equivalent and interchangeable forms (e.g., integer, fraction, decimal, percent, exponential, and scientific notation) in problem-solving.	<p><b>Student Edition:</b> 62-66, 70 #39, 104-107, 111 #21-#24, 206-209, 210-214, 220-223, 224, 250 #8, #9, 649 #18, #19, 652</p> <p><i>Problem-Solving Strategy</i> 226 <i>The Game Zone</i> 225</p> <p><b>Teacher Wraparound Edition:</b> A 214; DI 105; IE 64, 105; PC 204F</p>
M1A3.8 Apply concepts of ratios, proportions, percents, and number theory (e.g., primes, factors, and multiples) in practical and other mathematical situations.	<p><b>Student Edition:</b> 113 #11, 156-159, 166-169, 170-173, 178-182, 184-187, 188-191, 206-209, 216-219, 609, 610, 612</p> <p><i>Hands-On Lab</i> 183 <i>Spreadsheet Investigation</i> 165 <i>The Game Zone</i> 175 <i>WebQuest</i> 3, 153, 253, 465</p> <p><b>Teacher Wraparound Edition:</b> A 159, 173, 191; DI 157, 185, 217; IE 185, 189, 207; TNT 157, 186</p>

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<p>Content Standard B: Computation: Students will understand and demonstrate computation skills (no calculator use for straight computation and numbers used in this section should match those listed for Standard A). Students will be able to:</p>	
<p>M1B1.8 Compute and model all four operations with whole numbers, fractions, decimals, sets of numbers, and percents, applying the proper order of operations.</p>	<p><b>Student Edition:</b> 6-9, 11, 14 #14-#27, 21 #64-#66, 58 #2 <i>WebQuest</i> 3, 153, 253, 465 <b>Teacher Wraparound Edition:</b> DI 12; IE 12; PS 57, 111</p>
<p>M1B2.8 Create, solve, and justify the solution for multi-step, real-life problems including those with ratio and proportion.</p>	<p><b>Student Edition:</b> 6-9, 156-159, 170-173, 184-187, 188-191, 203 #10 <i>Problem-Solving Strategy</i> 226 <i>WebQuest</i> 3, 253 <b>Teacher Wraparound Edition:</b> A 173; DI 7, 226; TNT 157</p>
<p>Content Standard I. Discrete Mathematics: There is considerable overlap with other areas and other aspects are more appropriately assessed locally. No Grade Level Expectations.</p>	
<p><b>Cluster 2. Shape and Size</b></p>	
<p>Content Standard e: Geometry: Students will understand and apply concepts form geometry.</p>	
<p>M2E1.8 Compare, classify, and draw two-dimensional shapes and three-dimensional figures.</p>	<p><b>Student Edition:</b> 262-265, 272-275, 331-334 <i>Hands-On Lab</i> 330, 346 <i>Hands-On Mini Lab</i> 330, 346 <i>Problem-Solving Strategy</i> 97 #13, 176 <i>The Game Zone</i> 285 <i>WebQuest</i> 153, 253 <b>Teacher Wraparound Edition:</b> A 265, 275, 350; B 314; DI 273, 331; IE 263, 273, 332; TNT 320</p>
<p>M2E2.8 Apply geometric properties to represent and solve real-life problems involving regular and irregular shapes.</p>	<p><b>Student Edition:</b> 265 #24, 269 #16, 270 #17, 275 #24, 279-282, 286-289, 331-334, 653 #7 <i>Hands-On Lab</i> 283 <i>WebQuest</i> 153, 253 <b>Teacher Wraparound Edition:</b> A 289, 329, 334; B 279; DI 280, 287, 326; IE 280</p>

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M2E3.8 Use a coordinate system to define and locate position.	<b>Student Edition:</b> 115 #3-#6, 142-145, 290-294, 296-299, 308, 311, 522-525, 614 <i>Hands-On Lab</i> 22, 521 <b>Teacher Wraparound Edition:</b> DI 291; IE 143, 297, 523
<b>Content Standard F: Measurement: Students will understand and demonstrate measurement skills. Students will be able to:</b>	
M2F1.8 Demonstrate the structure and use of systems of measurements.	<b>Student Edition:</b> 51 #3, 73, 78, 158 #30, 184-187, 203 #8, 358-362, 604-605, 606-607, 648, 649 <i>WebQuest</i> 253 <b>Teacher Wraparound Edition:</b> A 187, 362; B 335; DI 359; PS 367
M2F2.8 Develop and use concepts that can be measured directly, or indirectly (e.g., the concept of rate).	<b>Student Edition:</b> 140 #21, 151 #13, 184-187, 188-191, 358-362, 653 #6 <i>Hands-On Lab</i> 183 <i>WebQuest</i> 3, 253 <b>Teacher Wraparound Edition:</b> A 191; DI 185, 189; IE 185; PS 149
M2F3.8 Demonstrate an understanding of length, area, volume, and the corresponding units, square units, and cubic units of measure.	<b>Student Edition:</b> 101 <i>Hands-On Lab</i> 330 <i>Spreadsheet Investigation</i> 356-357 <i>WebQuest</i> 3, 253 <b>Teacher Wraparound Edition:</b> A 338, 344; B 335; DI 315, 326; IE 327; MIC 253; PS 367; TNT 347
<b>Cluster 3. Mathematical Decision Making</b>	
<b>Content Standard C: Data Analysis and Statistics: Students will understand and apply concepts of data analysis. Students will be able to:</b>	
M3C1.8 Organize and analyze data using mean, median, mode, and range.	<b>Student Edition:</b> 36 #8, 435-438, 442-445, 449 #24, 451 #2, #3, 453 #18, 459, 461 #7-#9, 463 #14 <i>Spreadsheet Investigation</i> 439 <i>The Game Zone</i> 441 <i>WebQuest</i> 371 <b>Teacher Wraparound Edition:</b> B 435; DI 436, 451; IE 443, 451

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<p>Content Standard D: Probability: Students will understand and apply concepts of probability. Students will be able to: In the following GLEs it is expected that students use area and set models.</p>	
<p>M3D1.8 Find the probability of simple events and make predictions by applying the theories of probability.</p>	<p><b>Student Edition:</b> 374-377, 402 #5, #6, #7, 403 #20, #21, 406-409, 411, 412 <b>Teacher Wraparound Edition:</b> A 377, 403; IE 375, 401</p>
<p>M3D4.8 Find all possible combinations and arrangements involving a limited number of variables.</p>	<p><b>Student Edition:</b> 380-383, 388-391, 394 #15-#17, 396-399, 411, 412, 413 #15, #18, 415 #12, #13 <i>Hands-On Lab</i> 392-393 <i>Problem-Solving Strategy</i> 378-379, 488 <i>The Game Zone</i> 395 <b>Teacher Wraparound Edition:</b> A 391; B 380; IE 381, 389</p>
<p>Content Standard J. Mathematical Reasoning: The time demand and cognitive demand of these indicators make them inappropriate for large-scale assessment. No Grade Level Expectations.</p>	
<p><b>Cluster 4. Patterns</b></p>	
<p>Content Standard G: Patterns, Relations, and Functions: Students will understand that mathematics is the science of patterns, relationships, and functions. Students will be able to:</p>	
<p>M4G1.8 Describe and represent relationships with tables, graphs, and equations.</p>	<p><b>Student Edition:</b> 512-515, 517-520, 525 #32, 530 #4-#6, 552 #9-#13, 556 #4 <i>Hands-On Lab</i> 516, 521 <i>Problem-Solving Strategy</i> 537-538 <i>WebQuest</i> 371 <b>Teacher Wraparound Edition:</b> A 515; B 512; IE 513</p>
<p>M4G3.8 Use patterns and multiple representations to solve problems.</p>	<p><b>Student Edition:</b> 6-10, 101 #44, 512-515, 520 #29-#31, 530 #4-#6, 552 <i>Hands-On Lab</i> 102-103, 392-393, 516 <i>Problem-Solving Strategy</i> 96-97, 123-124, 324-325 <b>Teacher Wraparound Edition:</b> A 97; B 324, 512; DI 96, 99, 513</p>

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<p>Content Standard H: Algebra Concepts: Students will understand and apply algebraic concepts. Students will be able to:</p>	
<p>M4H3.8 Analyze tables and graphs to identify properties and relationships in a practical context.</p>	<p><b>Student Edition:</b>  13, 15 #41-#42, 48 #40-#41, 59 #18, 166-169, 481 #19, 522-525, 526-529, 534 #4-#6, 658  <i>Graphing Calculator Investigation</i> 532  <b>Teacher Wraparound Edition:</b>  A 525; IE 167; PS 57, 507, 555</p>
<p>M4H6.8 Find solutions for unknown quantities in linear equations and in simple equations and inequalities.</p>	<p><b>Student Edition:</b>  46-47, 50-51, 58 #9, 92-93, 110 #45-#49, 496-499, 500-504, 534 #4-#6, 544-547, 557 #18  <b>Teacher Wraparound Edition:</b>  A 547; DI 46, 496; IE 93, 497, 501-502; PS 507</p>
<p>Content Standard K. Communication: Due to heavy time load for creating graphs and convincing arguments and the duplication of use of algebraic notation, there are no Grade Level Expectations.</p>	