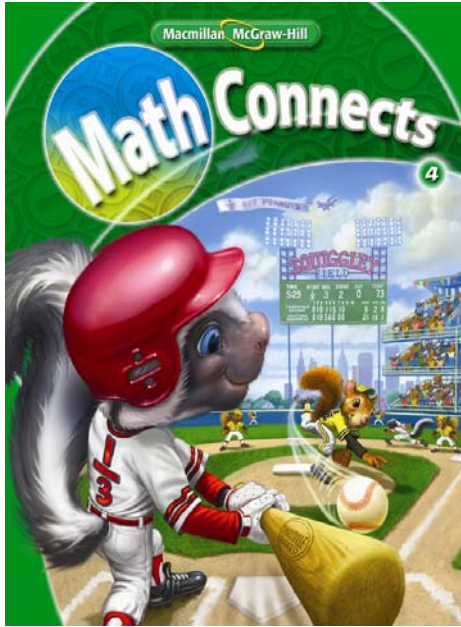




Macmillan/McGraw-Hill

Lee's Summit School District
Grade 4 Math



Math Connects

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STANDARDS	PAGE REFERENCES
Algebra	
A Patterns	
Describe geometric and numeric patterns	<p>Student Edition: 6, 204-206, 208-211, 220-223, 237-239, 316-319 <i>Problem-Solving Investigation</i> 40, 118, 218, 366-367 <i>Mid-Chapter Check</i> 207 <i>Study Guide and Review</i> 227-230 <i>Chapter Test</i> 231</p> <p>Teacher Edition: 208A, 214A, 240A, 320A, 368A A 206, 211, 223, 239, 319; AE 205, 209, 221; I 220, 237, 316; SQ 204, 208, 220, 237, 316; T 40, 118, 218</p>

STANDARDS	PAGE REFERENCES
B Patterns	
1) <u>Analyze</u> patterns using words, tables, and graphs	<p>Student Edition: 6, 204-206, 208-211, 220-223, 237-239, 316-319 <i>Problem-Solving Investigation</i> 40, 118, 218, 366-367 <i>Mid-Chapter Check</i> 207 <i>Study Guide and Review</i> 227-230 <i>Chapter Test</i> 231</p> <p>Teacher Edition: 208A, 214A, 240A, 320A, 368A A 206, 211, 223, 239, 319; AE 205, 209, 221; I 220, 237, 316; SQ 204, 208, 220, 237, 316; T 40, 118, 218</p>
2) <u>Model</u> problem situations using representations such as graphs, tables, or number sentences	<p>Student Edition: 208-211, 214-216, 220-223 <i>Problem-Solving in Science</i> 212-213 <i>Problem-Solving Investigation</i> 218-219 <i>Study Guide and Review</i> 228-230 <i>Chapter Test</i> 231</p> <p>Teacher Edition: 214A A 211, 223; AE 209, 215, 221; ATS 209, 215; SQ 208, 214, 220</p>
C Variables	
Represent a mathematical situation as an <u>expression</u> or number sentence	<p>Student Edition: 193-195, 208-211, 214-216, 220-223 <i>Explore</i> 196-197 <i>Mid-Chapter Check</i> 207 <i>Problem-Solving in Science</i> 212-213 <i>Game Time</i> 217 <i>Study Guide and Review</i> 228-230 <i>Chapter Test</i> 231</p> <p>Teacher Edition: 198A, 214A, 218A A 195, 211, 216, 223; AE 194, 209, 215, 221; ATS 194, 209; I 193; SQ 193, 208, 214, 220</p>

STANDARDS	PAGE REFERENCES
D Inequalities	
E Coordinates	
Describe movement using common language and geometric vocabulary (forward, back, left, right, north, south, east, and west)	Student Edition: 406-408, 415 <i>Mid-Chapter Check</i> 409 <i>Study Guide and Review</i> 430 Teacher Edition: 412A A 408; AE 407; ATS 407; SQ 406
F Coordinates	
Geometry	
A I-D	
B 2-D	
Identify and describe the <u>attributes</u> of 2-D shapes (including <u>parallel</u> and <u>perpendicular</u> sides)	Student Edition: 362-365, 372-375, 376-378, 400-403, 418-420 <i>Mid-Chapter Check</i> 371, 409 <i>Game Time</i> 379 <i>Study Guide and Review</i> 385-388 <i>Chapter Test</i> 389 <i>Explore</i> 398-399 <i>Extend</i> 421 Teacher Edition: 366A, 376A, 380A, 404A A 365, 375, 403, 420; AE 363, 373, 401, 419; ATS 363, 401; I 362; SQ 362, 372, 400, 418
C 3-D	
1) Identify and describe <u>attributes</u> of 3-D shapes (<u>prisms</u> , cones, <u>parallelism</u> , and <u>perpendicularity</u>)	Student Edition: 359-361 <i>Mid-Chapter Check</i> 371 <i>Problem-Solving in Art</i> 382-383 <i>Study Guide and Review</i> 384-385 <i>Chapter Test</i> 389 Teacher Edition: 362A A 361; AE 360; ATS 360; SQ 359

STANDARDS	PAGE REFERENCES
2) Given the picture of a <u>prism</u> , identify the shapes of the faces	Student Edition: 359-361 <i>Mid-Chapter Check</i> 371 <i>Problem-Solving in Art</i> 382-383 <i>Study Guide and Review</i> 384-385 <i>Chapter Test</i> 389 Teacher Edition: 362A A 361; AE 360; ATS 360; SQ 359
D Symmetry	
Identify and draw shapes that have <u>lines of symmetry</u>	Student Edition: 422-424 <i>Game Time</i> 425 <i>Problem-Solving in Science</i> 426-427 <i>Study Guide and Review</i> 432 <i>Chapter Test</i> 433 Teacher Edition: 422-424 A 424; AE 423; I 422; SQ 422
E Perimeter, Area and Volume	
1) Find perimeter and area of rectangular shapes	Student Edition: 456-459, 460-462 <i>Game Time</i> 463 <i>Extend</i> 464-465 <i>Study Guide and Review</i> 472-477 <i>Chapter Test</i> 479 Teacher Edition: 456-459, 460A, 460-462, 466A A 459, 462; AE 457, 461; ATS 457, 461; I 456, 460; SQ 456, 460

STANDARDS	PAGE REFERENCES
2) Identify and justify the unit of linear measure (customary and metric) to determine the perimeter and area of a rectangular shape	Student Edition: 456-459, 460-462 <i>Game Time</i> 463 <i>Extend</i> 464-465 <i>Study Guide and Review</i> 472-477 <i>Chapter Test</i> 479 Teacher Edition: 456-459, 460A, 460-462, 466A A 459, 462; AE 457, 461; ATS 457, 461; I 456, 460; SQ 456, 460
F Angles	
G Transformations	
Predict the results of <u>sliding/translating</u> , <u>flipping/reflecting</u> , or <u>turning/rotating</u> around the center point of a polygon	Student Edition: 412-415, 418-420 <i>Explore</i> 410-411 <i>Game Time</i> 425 <i>Study Guide and Review</i> 428, 431-432 <i>Chapter Test</i> 433 Teacher Edition: 412-415, 416A A 415, 420; AE 413, 419; ATS 413; CE 414; I 412; SQ 412, 318
H Mathematical Reasoning	
Describe the results of subdividing, combining, and <u>transforming</u> shapes	Student Edition: 412-415, 418-420 <i>Explore</i> 410-411 <i>Game Time</i> 425 <i>Study Guide and Review</i> 428, 431-432 <i>Chapter Test</i> 433 Teacher Edition: 412-415, 416A A 415, 420; AE 413, 419; ATS 413; CE 414; I 412; SQ 412, 318
I Trigonometry	

STANDARDS	PAGE REFERENCES
Number and Operations	
A Number Sense	
<p>Recognize <u>equivalent</u> representations for the same number and generate them by <u>decomposing</u> and <u>composing numbers</u> (This is not an isolated skill. It should be embedded throughout your curriculum all year.)</p>	<p>Student Edition: 16 #1-#11, 17-19 <i>Mid-Chapter Check</i> 31 <i>Study Guide and Review</i> 44-45 <i>Chapter Test</i> 49 <i>Extend</i> 68 Teacher Edition: AE 18; ATS 18; SQ 17</p>
B Number Sense	
C Number Sense	
<p>1) Read, write, and use numbers to 1,000,000</p>	<p>Student Edition: 17-19, 22-25 <i>Extend</i> 20-21 <i>Mid-Chapter Check</i> 31 <i>Study Guide and Review</i> 44-45 <i>Chapter Test</i> 49 Teacher Edition: 17-19, 22-25, 26A A 19, 25; AE 18, 23; ATS 18, 23; I 17, 22; SQ 17, 22</p>
<p>2) Identify <u>place value</u> of 7-digit numbers</p>	<p>Student Edition: 17-19, 22-25, 236 #10-#13 <i>Extend</i> 20-21 <i>Mid-Chapter Check</i> 31 <i>Study Guide and Review</i> 44-45 <i>Chapter Test</i> 49 Teacher Edition: 17-19, 22A, 22-25, 26A A 19; AE 18, 23; ATS 18, 23; I 17, 22; SQ 17, 22</p>

STANDARDS	PAGE REFERENCES
D Number Sense	
Classify and describe numbers by their characteristics, including <u>odd</u> , <u>even</u> , and <u>multiples</u>	Student Edition: 176-179, 237-239, 273-275 <i>Study Guide and Review</i> 180, 186, 262-263 <i>Chapter Test</i> 187 Teacher Edition: 176-179 A 179; AE 177; I 176, 273; SQ 176, 237
E Number Sense	
1) Compare 7-digit numbers using $<$, $>$, $=$	Student Edition: 28-30, 39 #33-#35 <i>Mid-Chapter Check</i> 31 <i>Study Guide and Review</i> 44, 47 <i>Chapter Test</i> 49 <i>Test Practice</i> 51 #4 Teacher Edition: 28-30, 32A A 30; AE 29; ATS 29; I 28; SQ 28
2) Round numbers up to the million's place	Student Edition: 36-39 <i>Study Guide and Review</i> 48 <i>Chapter Test</i> 49 <i>Test Practice</i> 50 #1 Teacher Edition: 36-39, 40A A 39; AE 37; ATS 38; SQ 36
F Number Sense	
1) Model, compare, and order decimals to the hundredths place using $<$, $>$, and $=$	Student Edition: 590-592 <i>Mid-Chapter Check</i> 593 <i>Study Guide and Review</i> 609 <i>Chapter Test</i> 611 Teacher Edition: 590-592, 594A A 592; AE 591; ATS 591; I 590; SQ 590

STANDARDS	PAGE REFERENCES
2) Use models, benchmarks (0, 1/2, 1) and equivalent forms to judge the size of fractions	Student Edition: 554-557 <i>Study Guide and Review</i> 569 <i>Chapter Test</i> 571 Teacher Edition: 554-557 A 557; AE 555; SQ 554
G Number Sense	
1) Determine change from \$10	The following example can be used to meet this standard. Student Edition: <i>Test Practice</i> 650 #4
2) Add and subtract money values to \$10	Student Edition: 632, 639-641 <i>Mid-Chapter Check</i> 633 <i>Chapter Test</i> 649 Teacher Edition: 630A, 634A AE 631, 639
H Operations	
1) Memorize multiplication and division facts through 12 x 12	Student Edition: 154-157, 160-162, 166-169 <i>Mid-Chapter Check</i> 163 <i>Game Time</i> 175 <i>Study Guide and Review</i> 180-184 <i>Chapter Test</i> 187 Teacher Edition: 154-157, 158A, 160-162, 166A, 166-169, 170A A 157, 162, 169; AE 155, 161, 167; ATS 155, 167; I 160, 166; SQ 154, 160, 166

STANDARDS	PAGE REFERENCES
2) Represent and recognize multiplication using various models, including sets and arrays	<p>Student Edition: 147-149, 154-157, 160-162, 166-169, 176-179 <i>Explore</i> 145-146 <i>Mid-Chapter Check</i> 163 <i>Game Time</i> 175 <i>Study Guide and Review</i> 180-184 <i>Chapter Test</i> 187</p> <p>Teacher Edition: 154-157, 158A, 160-162, 166A, 166-169, 170A, 176-179 A 157, 162, 169, 179; AE 148, 155, 161, 167, 177; ATS 149, 155, 167; I 160, 166; SQ 147, 154, 160, 166</p>
I Operations	
1) Add and subtract decimals to the hundredths place	<p>Student Edition: 630-632, 638-641 <i>Explore</i> 628-629, 636-637 <i>Mid-Chapter Check</i> 633 <i>Study Guide and Review</i> 644, 647-648 <i>Chapter Test</i> 649</p> <p>Teacher Edition: 630-632, 634A, 638-641 A 632, 641; AE 631, 639; ATS 631, 639; I 630, 638; SQ 630, 638</p>
2) Add and subtract fractions with like denominators	<p>The following page references can be used to meet this standard.</p> <p>Student Edition: LA14-LA17</p> <p>Teacher Edition: LA18A A LA17; AE LA 15; ATS LA16; I LA14; SQ LA14</p>

STANDARDS	PAGE REFERENCES
J Operations	
1) Understand and apply multiplication of whole numbers up to a 2-digit by 2-digit	<p>Student Edition: 246-248, 252-255, 258-261, 273-275, 284-286 <i>Mid-Chapter Check</i> 249, 287 <i>Problem-Solving in Science</i> 256-257 <i>Study Guide and Review</i> 262-266, 300-303 <i>Chapter Test</i> 267, 305 <i>Explore</i> 282-283</p> <p>Teacher Edition: 246-248, 250A, 252-255, 258A, 284-286, 288A A 255, 275, 286; AE 247, 253, 259, 285; ATS 247; I 252, 284; SQ 246, 252, 258, 273, 284</p>
2) Understand and apply division of whole numbers up to a 1-digit <u>divisor</u> and 3-digit <u>dividend</u> with/without remainders	<p>Student Edition: 313-315, 316-319, 326-329, 332-334 <i>Explore</i> 311-312 <i>Mid-Chapter Check</i> 325 <i>Extend</i> 335 <i>Game Time</i> 339 <i>Problem-Solving in Science</i> 340-341 <i>Study Guide and Review</i> 346-352 <i>Chapter Test</i> 353</p> <p>Teacher Edition: 313-315, 316A, 316-319, 320A, 326-329, 330A, 336A A 315, 319, 329, 334; AE 314, 317, 327, 333; ATS 333, I 316, 326, 332; SQ 313, 316, 326, 332</p>
K Operations	
Apply <u>commutative</u> and <u>identity properties</u> of multiplication to whole numbers	<p>Student Edition: 150-153, 273 <i>Study Guide and Review</i> 182 <i>Chapter Test</i> 187</p> <p>Teacher Edition: 154A A 153; AE 151; ATS 151, I 150; SQ 150</p>

STANDARDS	PAGE REFERENCES
L Operations	
1) Select and explain an appropriate method of computation to solve word problems	<p>Student Edition: <i>Problem-Solving Skill</i> 26-27, 240-241 <i>Problem-Solving Investigation</i> 40-41, 76-77, 118-119, 170-171, 218-219, 250-251, 294-295, 330-331, 380-381, 416-417, 466-467, 518-519, 564-565 <i>Study Guide and Review</i> 46, 48</p> <p>Teacher Edition: 26-27, 28A T 40, 76, 118, 170, 218, 250, 294, 330, 380, 416, 466, 518, 564</p>
2) Represent a mental strategy used to compute a given multiplication problem (up to 2-digit by 2-digit)	<p>Student Edition: 237-239, 242-244, 246-247 <i>Problem-Solving Skill</i> 240-241</p> <p>Teacher Edition: 237-239, 240A, 242A, 246A A 239; AE 238, 243; ATS 243; I 237, 242; SQ 237, 242</p>
M Operations	
Use <u>estimation strategies</u> and mental computation (+, -, and x) to determine if an answer is reasonable	<p>Student Edition: 36-39, 58-61, 242-244 <i>Problem-Solving Skill</i> 62-63, 240-241 <i>Game Time</i> 245 <i>Mid-Chapter Check</i> 249</p> <p>Teacher Edition: 40A, 58-61, 62A, 64A, 242A, 246A A 29, 61; AE 37-59; SQ 36, 58; T 62, 240</p>

STANDARDS	PAGE REFERENCES
Measurement	
A Linear measures	
1) Estimate, measure, and solve problems that involve measurement of length in <u>customary</u> and <u>metric</u> units	Student Edition: 441-443, 450-452 <i>Explore</i> 439-440 <i>Mid-Chapter Check</i> 453 <i>Study Guide and Review</i> 472-475 <i>Chapter Test</i> 479 Teacher Edition: 441-443, 444A, 450-452, 456A A 443; AE 442, 451; ATS 442; I 439, 441; SQ 441, 450
2) Use <u>non-standard</u> units to estimate length	Student Edition: 441, 450 Teacher Edition: I 439; SQ 450
3) Identify <u>equivalent</u> linear measures within a system of measurement	Student Edition: 444-445 <i>Mid-Chapter Check</i> 453 <i>Study Guide and Review</i> 473 <i>Chapter Test</i> 479 Teacher Edition: 444-445, 446A A 445; ATS 445; SQ 444
B Weight, capacity, mass	
Select and use <u>benchmarks</u> to estimate measurements (capacity and weight)	Student Edition: 486-489, 492-495, 498-500, 508-510 <i>Explore</i> 485, 496-497 <i>Mid-Chapter Check</i> 501 <i>Game Time</i> 511 <i>Study Guide and Review</i> 524-528 <i>Chapter Test</i> 531 Teacher Edition: 486-489, 490A, 498A, 502A, 512A A 489, 495, 500, 510; AE 487, 499, 509; I 486, 492, 498; SQ 486, 492, 498, 508

STANDARDS	PAGE REFERENCES
C Angles	
Select and use <u>benchmarks</u> to estimate measurements of 0, 45, and 90 degree angles	Student Edition: 368-370 <i>Mid-Chapter Check</i> 371 <i>Study Guide and Review</i> 387 <i>Chapter Test</i> 389 Teacher Edition: 368-370, 372A A 370; AE 369; SQ 368
D Time	
Solve problems that involve time (including a.m. and p.m.)	Student Edition: 520-523 <i>Study Guide and Review</i> 530 Teacher Edition: 520-523, 537A A 523; AE 521; ATS 521; I 520; SQ 520
E Rates, ratios, and proportions	
Describe mathematical relationships in terms of <u>constant rates of change</u>	Student Edition: 540-543 <i>Problem-Solving Strategy</i> 544-545 <i>Explore</i> 546-547 <i>Mid-Chapter Check</i> 553 Teacher Edition: 544A, 544-545, 548A A 543; AE 541; ATS 541; I 540; SQ 540; T 544
F Miscellaneous	

STANDARDS	PAGE REFERENCES
Data	
A Collecting, Analyzing, & Displaying Data	
<p>Collect, sort, classify, and display <u>categorical and numerical data in charts, tables, graphs (bar, line, picture) and line plots</u></p>	<p>Student Edition: 95-97, 104-107, 108-110, 112-114 <i>Problem-Solving Strategy</i> 102-103 <i>Mid-Chapter Check</i> 111 <i>Game Time</i> 115 <i>Extend</i> 116-117 <i>Problem-Solving in Science</i> 120-121 <i>Study Guide and Review</i> 132-136 <i>Chapter Test</i> 139</p> <p>Teacher Edition: 98A, 104A, 108A, 112A, 118A A 97, 107, 110, 114; AE 96, 105, 109, 113; ATS 96, 113; I 95, 104, 108, 112; SQ 95, 104, 108, 112; T 102</p>
B Collecting, Analyzing, & Displaying Data	
<p>Interpret data in <u>charts, tables, graphs (bar, line, picture, circle) and line plots</u></p>	<p>Student Edition: 95-97, 98-101, 104-107, 108-110, 112-114 <i>Problem-Solving Strategy</i> 102-103 <i>Mid-Chapter Check</i> 111 <i>Game Time</i> 115 <i>Extend</i> 116-117 <i>Problem-Solving in Science</i> 120-121 <i>Study Guide and Review</i> 132-136 <i>Chapter Test</i> 139</p> <p>Teacher Edition: 98A, 102A, 104A, 108A, 112A, 118A A 97, 101, 107, 110, 114; AE 96, 99, 105, 109, 113; ATS 96, 99, 113; I 95, 98, 104, 108, 112; SQ 95, 98, 104, 108, 112; T 102</p>

STANDARDS	PAGE REFERENCES
C Probability	
<p>Given a set of data, propose and justify conclusions that are based on the data</p>	<p>Student Edition: 124-127, 128-130 <i>Explore</i> 122-123 <i>Extend</i> 131 <i>Study Guide and Review</i> 138 <i>Chapter Test</i> 139</p> <p>Teacher Edition: 124-127, 128A, 128-130, 147A A 127, 130; AE 125, 129; ATS 125, 129; I 124, 128; SQ 124, 128</p>
D Averages & Statistical Techniques	
<p>Describe important <u>features</u> of the data set</p>	<p>Student Edition: 98-101 <i>Mid-Chapter Check</i> 111 <i>Study Guide and Review</i> 132-136 <i>Chapter Test</i> 139</p> <p>Teacher Edition: 98-101, 102A A 101; AE 99; ATS 99; I 98; SQ 98</p>