



MATHConnections Correlation to the Washington Mathematics EALR & GLE, Grades 9-10

EALR 1: The student understands and applies the concepts and procedures of mathematics.	
	Location/Page
COMPONENT 1.1: Understand and apply concepts and procedures from number sense.	
1.1.1 Understand and use scientific notation. W	Book 1a: pp. 133 – 139, 143 – 148 Book 3a: pp. 138 – 139
1.1.4 Understand the concept of inverse proportion and apply direct and inverse proportion. W	Book 2a: pp. 91 – 98
1.1.5 Compute using scientific notation. W	Book 1a: pp. 133 – 139, 143 – 148 Book 3a: pp. 138 – 139
1.1.6 Complete multi-step computations with combinations of rational numbers using order of operations and addition, subtraction, multiplication, division, powers, and square roots. W	Book 1a: pp. 61 – 69, 86 – 95, 98 – 107, 126 – 129, 140 – 147, 176 - 181 Book 1b: pp. 282 – 287, 292 – 306, 314 – 326, 336, 337, 340, 354 – 355, 388 – 410 Book 2a: pp. 60, 61, 168 – 170, 224, 225, 227 Book 2b: pp. 335 – 337, 345 – 351, 372, 375 – 377, 380 – 382, 404 – 421, 426 – 437, 441 – 447, 481 – 523 Book 3a: pp. 4 – 36, 48 – 109, 156 – 161, 230 - 270 Book 3b: pp. 334 – 357, 374 – 382, 429, 430, 434, 435, 483 – 487

<p>1.1.8 Apply estimation strategies in situations involving multi-step computations of rational numbers using addition, subtraction, multiplication, division, powers, and square roots to predict or determine reasonableness of answers. W</p>	<p>Book 1a: pp. 61, 63, 68, 86, 101, 104–107, 122, 135, 104, 176–181 Book 1b: pp. 282–287, 292–306, 314–326, 336, 337, 340, 354–355, 388–410 Book 2a: pp. 60, 61, 168–170, 224, 225, 227 Book 2b: pp. 335–337, 345–351, 372, 375–377, 380–382, 404–421, 426–437, 441–447, 481–523 Book 3a: pp. 4–36, 48–109, 156–161, 230–270 Book 3b: pp. 334–357, 374–382, 429, 430, 434, 435, 483–487</p>
<p>COMPONENT 1.2: Understand and apply concepts and procedures from measurement.</p>	
<p>1.2.1 Understand the relationship between change in one or two linear dimension(s) and corresponding change in perimeter, area, surface area, and volume. W</p>	<p>Book 2a: pp. 51, 92, 93, 99–103, 200–216 Book 2b: pp. 373–377, 407–408, 412–415 Book 3b: pp. 371–382</p>
<p>1.2.3 Apply unit conversions within measurement systems, U.S. or metric, to maintain an appropriate level of precision. W</p>	<p>Book 2a: pp. 10, 13, 14, 51, 52, 61, 103, 104, 117, 128, 129, 187–189, 215 Book 2b: p. 421 Book 3a: pp. 158–161</p>
<p>1.2.5 Use formulas to determine measurements related to right prisms, cylinders, cones, or pyramids. W</p>	<p>Book 2b: pp. 380–382, 394, 397, 399–408, 421–421, 426–437</p>
<p>1.2.6 Understand and apply estimation strategies to obtain reasonable measurements at an appropriate level of precision. W</p>	<p>Book 2a: pp. 4–6, 12, 13, 43–47, 72, 73, 121–122, 144, 169, 170, 179, 180, 220–221 Book 2b: pp. 293, 294, 325–334, 373–377 Book 3b: pp. 604</p>
<p>COMPONENT 1.3: Understand and apply concepts and procedures from geometric sense.</p>	
<p>1.3.1 Understand the properties of and the relationships among 1-dimensional, 2-dimensional, and 3-dimensional shapes and figures. W</p>	<p>Book 2a: pp. 32–42, 122–129, 161–162, 167–280 Book 2b: pp. 286–291, 293, 295–304, 324, 344, 467 Book 3b: pp. 414, 591–601</p>
<p>1.3.2 Use the properties of and relationships among 1-dimensional, 2-dimensional, and 3-dimensional shapes and figures including prisms, cylinders, cones, and pyramids. W</p>	<p>Book 2a: pp. 32–42, 122–129, 161–162, 167–280 Book 2b: pp. 286–281, 293, 295–304, 324, 344, 346 Book 3b: pp. 412, 414</p>

1.3.3 Use geometric properties to determine and plot points on a coordinate grid. W	Book 1b: pp. 379, 380 Book 2a: pp. 54, 158, 180 – 182, 187, 189, 376 – 380 Book 2b: pp. 309 – 314, 318, 319, 328, 438 – 467, 472 – 478, 494 – 499 Book 3a: pp. 37 – 38, 163 – 174 Book 3b: pp. 494, 500 – 504, 432, 433
1.3.4 Apply multiple transformations – translations, reflections, and/or rotations to 2-dimensional figures. W	Book 2a: pp. 24 – 28 Book 2b: pp. 289 – 291, 315 – 322, 458 – 462
COMPONENT 1.4: Understand and apply concepts and procedures from probability and statistics.	
1.4.1 Understand the concepts of dependent and independent events. W	Book 3a: pp. 240 – 254
1.4.2 Use procedures to compute the probability of dependent and independent events. W	Book 1a: pp. 453 – 492 Book 3a: pp. 236 – 270, 282, 283
1.4.3 Determine possible sources of bias in questions, data collection methods, samples, and/or measures of central tendency and describe how such bias can be controlled. W	Book 1a: pp. 12 – 16, 31 – 40, 53 – 55, 59, 60, 221 – 224 Book 2a: pp. 72 Book 3a: pp. 271 – 294
1.4.4 Identify clusters and outliers in data and determine effects on the measures of central tendency. W	Book 1a: pp. 12 – 16, 31 – 40, 53 – 55, 59, 60, 221 – 224 Book 2a: pp. 72 Book 3a: pp. 271 – 294
1.4.5 Use bivariate data in tables and displays to predict mathematical relationships. W	Book 1a: pp. 86 – 99, 121 – 124, 131 – 132, 194, 237 – 244, 256 – 270 Book 1b: pp. 307 – 312, 335, 361 - 370 Book 2b: pp. 328, 329 Book 3a: pp. 35, 70, 101, 127 – 129, 145, 189 – 195
1.4.6 Determine and explain how the same set of data can support different points of view. W	Book 1a: pp. 14, 23, 31, 36 – 39, 53, 219, 224 – 228, 251, 263 - 266 Book 1b: pp. 307 – 312 Book 3a: pp. 236, 282 – 283, 286 – 295

COMPONENT 1.5: Understand and apply concepts and procedures from algebraic sense.	
1.5.1 Apply knowledge of patterns or sequences to represent linear functions (W) and/or exponential functions.	Book 1a: pp. 85 – 95, 121 – 132, 171 – 216, 232 – 269 Book 1b: pp. 203 – 326, 340, 359 – 365, 372 – 398 Book 2a: pp. 90 – 92, 95 Book 2a: pp. 3 – 10, 69 – 130
1.5.2 Determine an equation or rule for a linear function represented in a pattern, table, graph, or model. W	Book 1a: pp. 82, 90 – 95, 181, 232 – 236 Book 1b: pp. 295 – 296, 380 – 386 Book 3a: pp. 4, 5, 121 – 130
1.5.4 Use variables to write expressions, linear equations and inequalities that represent situations involving rational numbers, whole number powers, and square roots. W Uses variables to write non-linear equations.	Book 1a: pp. 80 – 109, 162 – 182, 197 – 216, 232 – 269 Book 1b: pp. 282 – 326, 346 – 398, 410 Book 2a: pp. 60 – 61, 169 – 170, 174, 206, 224, 225, 227 Book 2b: pp. 448 – 467, 481 – 523 Book 3a: pp. 3 – 17, 33 – 37, 47 – 54, 84 – 130, 180 – 195 Book 3b: pp. 316 – 357, 371 – 382, 433 – 435, 482 – 487,
1.5.5 Apply algebraic properties to simplify expressions involving whole number exponents. W	Book 1a: pp. 140 – 147 Book 1b: pp. 388 - 389 Book 2a: pp. 62 – 65, 72 Book 3a: pp. 20, 38, 47, 74 – 99, 235
1.5.6 Apply properties to solve multi-step equations and systems of equations. W	Book 1a: pp. 109 – 120, 193 – 214, 232 – 240 Book 1b: pp. 208 – 326, 372 - 386 Book 2a: pp. 60 – 61, 168 – 170, 224, 225, 227 Book 2b: pp. 481 – 523 Book 3a: pp. 3 – 21, 48 – 54 Book 3b: pp. 316 – 357

EALR 2: The student uses mathematics to define and solve problems.

	Location/Page
COMPONENT 2.1: Define problems.	
2.1.1 Formulate questions to be answered to solve a problem. W	Book 1a: pp. 225, 226, 228 Book 3a: pp. 235 Book 3b: pp. 451
2.1.2 Determine what information is missing or extraneous. W	Book 1a: pp. 17, 112, Book 2a: pp. 25, 224 Book 2b: pp. 335, 436 Book 3a: pp. 138, 191
2.1.3 Identify what is known and unknown in complex situations. W	Book 1a: pp. 17, 139 Book 1b: pp. 403
COMPONENT 2.2: Construct solutions	
2.2.1 Select and use relevant information to construct solutions. W	Book 1b: pp. 77, 224 Book 2b: pp. 310 – 311 Book 3a: pp. 5, 10, 13, 43, 63, 119, 246 Book 3a: pp. 319
2.2.2 Apply mathematical concepts and procedures from number sense, measurement, geometric sense, probability and statistics, and/or algebraic sense to construct solutions. W	Book 1a: pp. 97, 121 – 123, 140, 144 Book 1b: pp. 276 – 278, 460 Book 2a: pp. 72, 224, 228 Book 2b: pp. 314 – 320, 324 – 332, 341 – 346, 352 – 356, 373 – 377, 390 – 392, 427, 428, 431 Book 3a: pp. 45, 46, 88, 104, 123, 205 – 209, 214 Book 3b: pp. 451, 454 – 457, 501 - 501

<p>2.2.3 Apply a variety of strategies and approaches to construct solutions. W</p>	<p>Book 1a: pp. 15, 123, 136, 138, 144, 184 – 191 Book 1b: pp. 276 – 278, 308 – 310, 320 – 321, 460 Book 2a: pp. 224, 228 Book 2b: pp. 314 – 320, 324 – 332, 341 – 346, 352 – 356, 373 – 377, 390 – 392, 427, 428, 431 Book 3a: pp. 109, 113 – 118, 148, 149, 163 – 179 Book 3b: pp. 454 – 457, 604</p>
<p>2.2.4 Determine whether a solution is viable, is mathematically correct, and answers the question(s). W</p>	<p>Book 1a: pp. 15, 97, 103, 124, 144, 173, 204, 212, 213 Book 1b: pp. 279, 460 Book 2a: pp. 38 – 42, 132, 149, 175, 228 Book 3a: pp. 16, 18, 19, 21, 25, 27, 35, 36, 39, 44, 50, 55, 66, 77, 95, 173 Book 3b: pp. 313, 489</p>

EALR 3: The student uses mathematical reasoning.

	Location/Page
<p>COMPONENT 3.1: Analyze information.</p>	
<p>3.1.1 Analyze, compare, and integrate mathematical information from multiple sources. W</p>	<p>Book 1a: pp. 4, 30, 70 – 73, 85, 95, 137, 241 Book 1b: pp. 276 Book 2a: pp. . 5, 6, 9, 237 – 239 Book 2b: pp. 478 Book 3a: pp. 135 Book 3b: pp. 550, 606</p>

COMPONENT 3.2: Conclude.	
3.2.1 Draw and support conclusions, using inductive or deductive reasoning. W	Book 1a: pp. 97, 103, 123, 177 Book 2a: pp. 26, 31, 35, 40 – 42, 53, 68, 132, 157, 182, 183, 186, 189, 192, 193, 199, 228, 229, 237 – 239 Book 3a: pp. 80, 88, 91 Book 3b: pp. 389, 391 – 394, 417 – 423, 436, 445, 452, 461, 462, 466, 477, 479, 483 – 487, 497, 498, 512, 523, 540, 547, 548, 552, 572 – 581, 600 – 602
3.2.2 Evaluate procedures and conclusions to make needed revisions. W	Book 1a: pp. 26 Book 1b: pp. 358 Book 2a: pp. 85, 182, 183, 199 Book 2b: pp. 407
COMPONENT 3.3: Verify results.	
3.3.1 Justify results using inductive or deductive reasoning. W	Book 2a: pp. 177, 182, 183, 186, 189, 192 – 193, 199, 228, 229 Book 2b: pp. 287, 290, 308, 357, 359, 396, 446, 464 Book 3a: pp. 230, 264 Book 3b: pp. 393, 394, 410 – 423, 431, 432, 436, 445, 461, 462, 479, 483 – 487, 516, 517, 523, 563 – 569, 572 – 581, 589, 590, 600 – 602
3.3.2 Evaluate reasonableness of results. W	Book 1a: pp. 31, 36, 37, 44, 97, 103, 124, 173, 212, 213 Book 1b: pp. 294, 348, 360, 395, 469 Book 2a: pp. 53, 73, 77, 184, 195, 196, 229 Book 2b: pp. 439 Book 3a: pp. 7, 8, 15, 38, 180, 192 – 195 Book 3b: pp. 332, 337, 434
3.3.3 Validate thinking about mathematical ideas. W	Book 1a: pp. 44, 97, 103, 124, 132, 173 Book 1b: pp. 460 Book 2a: pp. 77, 130, 144, 145, 182, 183, 189, 191 – 197, 201, 228, 229, 251 – 253 Book 2b: pp. 405, 417 Book 3a: pp. 13, 15, 24, 57, 58, 83, 91, 92, 108, 133, 215 Book 3b: pp. 333

EALR 4: The student communicates knowledge and understanding in both everyday and mathematical language.

	Location/Page
COMPONENT 4.1: Gather information.	
4.1.1 Develop, select, and/or apply an efficient system for collecting mathematical information. W	Book 1a: pp. 4, 30, 70 – 73, 241 Book 1b: pp. 460, 484, 485, 489, 490
4.1.2 Extract mathematical information from multiple sources. W	Book 1a: pp. 4, 30, 70 – 73, 85, 95, 137, 241 Book 1b: pp. 276 Book 2a: pp. . 5, 6, 9, 237 – 239 Book 2b: pp. 478 Book 3a: pp. 135 Book 3b: pp. 550, 606
COMPONENT 4.2: Organize, represent, and share information.	
4.2.1 Organize, clarify, and refine mathematical information relevant to a given purpose. W	Book 1a: pp. 4, 17, 30, 63, 70 – 73, 137, 173, 219 – 221 Book 1b: pp. 276, 281, 283, 285, 286, 318, 347, 460 Book 2a: pp. 72, 228 Book 3a: pp. 26, 51 Book 3b: pp. 588 – 590
4.2.2 Represent mathematical information in graphs or other appropriate forms. W	Book 1a: pp. 8 –11, 16 – 53, 60, 70 – 73, 176 – 210, 219 – 271 Book 1b: pp. 276 – 280, 288 – 328, 356 – 386, 424 – 450, 473, 476, 489 - 492 Book 2a: pp. 62 – 65, 72, 94, 101 – 102, 127, 136, 150, 180 – 182, 187, 271 – 280 Book 2b: pp. 309 – 314, 318, 319, 328, 438 – 467, 472 – 478, 494 – 499 Book 3a: pp. 37 – 38, 163 – 174 Book 3b: pp. 389 – 393, 494, 500 – 504, 432, 433, 458, 500 – 501, 589, 590

4.2.3 Use mathematical language to explain or describe mathematical ideas and information in ways appropriate for audience and purpose. W	Book 1a: pp. 4, 17, 30, 40, 44, 48, 61, 63, 70 – 73, 83, 101, 108, 126, 137, 167, 180, 207, 210, 245, 263, 264, 271 Book 1b: pp. 282, 295 – 297, 350, 410, 387, 400, 408 – 410, 460, 463, 466 Book 2a: pp. 72, 120, 126, 186, 204 Book 2b: pp. 284, 476 Book 3a: pp. 42, 96, 116, 117, 122, 135, 144, 261 Book 3b: pp. 388, 399, 490, 538, 550, 593, 602
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EALR 5: The student understands how mathematical ideas connect within mathematics, to other subject areas, and to real-world situations.

	Location/Page
COMPONENT 5.1: Relate concepts and procedures within mathematics.	
5.1.1 Apply concepts and procedures from two or more content strands, including number sense, measurement, geometric sense, probability and statistics, and/or algebraic sense, in a given problem or situation. W	Book 1a: pp. 128, 170 Book 1b: pp. 356, 357, 422 Book 2a: pp. 25, 55 – 65, 71, 72, 88, 100 – 103, 145, 149, 168, 169, 174, 175, 180 – 182, 216, 221 Book 2b: pp. 313 – 322, 373 – 377, 397 – 400, 404, 406 – 421, 442 – 476, 486 – 492 Book 3a: pp. 37 – 39 Book 3b: pp. 371 – 382, 454 – 457, 462, 472, 494, 500 – 504, 508, 522 – 523, 532, 523,
5.1.2 Relate and use different mathematical models and representations of the same situation. W	Book 1a: pp. 14, 23, 87, 88, 172 – 173, 219 – 221 Book 1b: pp. 307 – 310, 320, 321, 350, 351, Book 2a: pp. 44, 69, 108, 221, 237 – 239 Book 2b: pp. 370 Book 3a: pp. 66, 79, 81, 98, 106, 122, 237 Book 3b: pp. 334 – 338, 350, 361

COMPONENT 5.2: Relate mathematical concepts and procedures to other disciplines.

5.2.1 Use mathematical patterns and ideas to extend mathematical thinking and modeling to other disciplines.	Book 1a: pp. 49 – 52, 70 – 73, 78, 83 – 86, 93, 94, 129, 139, 151 – 157, 206 – 210, 213– 216, 222 – 226, 252 – 256, Book 1b: pp. 295, 296, 313 – 316, 319, 325, 326, 376, Book 2a: pp. 4 – 6, 14, 22, 94 – 98, 154 – 156, 166, 174 –177, 187 – 189, 225, 235, 236 Book 2b: pp. 284 – 286, 293, 395, 398, 468 – 477, 509 Book 3a: pp. 89, 99, 100, 127 – 130, 187, 217, 262, 572 Book 3b: pp. 316 – 357, 426 – 428, 434, 435, 549, 550, 553, 597
5.2.2 Describe the contributions of individuals and cultures to the development of mathematics.	Book 1a: pp. 3, 148, 247 Book 1b: pp. 471, 472, 476 Book 2a: pp. 14, 80, 89, 90, 138, 213, 214, 224, 229 Book 2b: pp. 285, 286, 333, 334, 338, 362, 378 – 380, 402, 430, 438, 475, 476 Book 3a: pp. 111 Book 3b: pp. 428, 475 – 477, 478, 483, 530, 531, 534, 553 – 581, 593 – 598, 603 605

COMPONENT 5.3: Relate mathematical concepts and procedures to real-world situations.

5.3.1 Understand that mathematics is used extensively in daily life outside the classroom.	Book 1a: pp. 2, 4 – 11, 17, 26 – 32, 39 – 52, 70 – 73, 78, 79, 83 – 96, 102 – 104, 117 – 129, 139, 146, 151 – 161, 170 - 175, 193 – 194, 200 – 202, 206 – 210, 213 – 216, 219 – 245, 251 – 271 Book 1b: pp. 281 – 299, 307 – 319, 325, 326, 329 – 347, 353, 354, 360 – 378, 380 – 400, 403 – 410, 413 – 419, 424 – 429, 431, 432, 435, 436, 444 – 460, Book 2a: pp. 2, 16, 22, 43, 52, 135, 136, 153 – 156, 174, 175, 198, 199, 202, 207 – 210, 212, 217, 231, 252 Book 2b: pp. 283 – 286, 294, 305 – 307, 309 – 311, 323, 336, 338, 340 – 350, 355, 356, 375 – 381, 383, 390, 395, 396, 398, 407, 418, 421, 425 – 429, 435 – 437, 439, 445, 468 – 476, 482 – 485, 491, 491, 500, 501, 509 – 513, 520 – 525, 528 – 530, 532 – 535, 539 – 541 Book 3a: pp. 3 – 18, 24 , 25, 29, 35 – 44, 47 – 49, 53 – 57, 61 – 63, 66, 84 – 107, 131 – 151, 191 – 195, 205 – 209, 212, 217 –218, 234, 251 – 252, 257, 262, 282, 283, 286 – 295 Book 3b: pp. 307 – 334, 341 – 350, 361, 376, 381, 382, 426
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<p>5.3.2 Understand that mathematics is used in many occupations or careers.</p>	<p>Book 1a: pp. 2, 76, 150, 218, Book 1b: pp. 274, 328, 412, 452 Book 2a: pp. 2, 106, 134, 135, 147, 148, 218, 231 – 233, 243, 244, 247, 252, 253 Book 2b: pp. 282, 368, 480 Book 3a: pp. 2, 9, 10, 17, 18, 25, 29, 33, 37, 54, 61, 68, 72, 89, 92 –94, 99, 100, 107, 127, 136, 142, 150, 151, 204 – 209, 251,262, 286 – 295 Book 3b: pp. 298, 307 – 334, 341 – 350, 384, 474, 542, 361, 369, 370, 376, 548</p>
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