MathLinks 8 **Curriculum Correlation**

Strand/Outcome	Chapter/Section	Pages
Strand: Number		
General Outcome *Develop number sense.*	Chapters 2–4 Chapter 6 Chapter 8	pp. 42–155 pp. 194–241 pp. 282–323
Specific Outcomes		
1. Demonstrate an understanding of perfect square and square root, concretely, pictorially and symbolically (limited to whole numbers). [C, CN, R, V]	Chapter 3: 3.1 Wrap It Up! Math Games Challenge in Real Life: Building a Staircase Chapters 1–4 Review	pp. 80–87 p. 115 p. 116 p. 117 pp. 156–158
2. Determine the approximate square root of numbers that are not perfect squares (limited to whole numbers). [C, CN, ME, R, T]	Chapter 3: 3.3 Wrap It Up! Chapters 1–4 Review	pp. 95–100 p. 115 pp. 156–158
3. Demonstrate an understanding of percents greater than or equal to 0%. [CN, PS, R, V]	Chapter 4: 4.1–4.4 Wrap It Up! Math Games Challenge in Real Life: The Buying and Selling Game Chapters 1–4 Review Task: Test the Efficiency of a Ramp	pp. 122–149 p. 153 p. 154 p. 155 pp. 156–158 p. 159
4. Demonstrate an understanding of ratio and rate. [C, CN, V]	Chapter 2: 2.1–2.2 Wrap It Up! Math Games Challenge in Real Life: Life of a Bush Pilot Chapters 1–4 Review Task: Test the Efficiency of a Ramp Task: Put Out a Forest Fire	pp. 46–62 p. 73 p. 74 p. 75 pp. 156–158 p. 159 p. 475
5. Solve problems that involve rates, ratios and proportional reasoning. [C, CN, PS, R]	Chapter 2: 2.1–2.3 Wrap It Up! Challenge in Real Life: Life of a Bush Pilot Chapters 1–4 Review Challenge in Real Life: Treasure Hunt Task: Put Out a Forest Fire	pp. 46–69 p. 73 p. 75 pp. 156–158 p. 441 p. 475

Strand/Outcome	Chapter/Section	Pages
6. Demonstrate an understanding of multiplying and dividing positive fractions and mixed numbers, concretely, pictorially and symbolically. [C, CN, ME, PS]	Chapter 6: 6.1–6.6 Wrap It Up! Math Games Challenge in Real Life: Rock, Paper, Scissors Task: Fraction Cubes Challenge in Real Life: Treasure Hunt Chapters 5–8 Review	pp. 198–235 p. 239 p. 240 p. 241 p. 327 p. 441 pp. 324–326
7. Demonstrate an understanding of multiplication and division of integers, concretely, pictorially and symbolically. [C, CN, PS, R, V]	Chapter 8: 8.1–8.5 Wrap It Up! Math Games Challenge in Real Life: Running a Small Business Challenge in Real Life: The Earth's Core Chapters 5–8 Review	pp. 286–317 p. 321 p. 322 p. 323 p. 405 pp. 324–326
Strand: Patterns and Relations (Patterns)		
General Outcome *Use patterns to describe the world and solve problems.*	Chapter 9	pp. 328–365
Specific Outcomes		
1. Graph and analyze two-variable linear relations. [C, ME, PS, R, T, V]	Chapter 9: 9.1–9.3 Wrap It Up! Math Games Challenge in Real Life: Comparing Wages Challenge in Real Life: The Earth's Core Chapters 9–12 Review	pp. 332–359 p. 363 p. 364 p. 365 p. 405 pp. 472–474

Strand/Outcome	Chapter/Section	Pages
Strand: Patterns and Relations (Variables and Equations)		
General Outcome *Represent algebraic expressions in multiple ways.*	Chapter 10	pp. 366–405
Specific Outcomes		
2. Model and solve problems using linear equations of the form: • $ax = b$ • $\dfrac{x}{a} = b, a \neq 0$ • $ax + b = c$ • $\dfrac{x}{a} + b = c, a \neq 0$ • $a(x + b) = c$ concretely, pictorially and symbolically, where *a, b* and *c* are integers. [C, CN, PS, V]	Math Games Chapter 10: 10.1–10.4 Wrap It Up! Math Games Challenge in Real Life: The Earth's Core Chapters 9–12 Review	p. 364 pp. 370–399 p. 403 p. 404 p. 405 pp. 472–474
Strand: Shape and Space (Measurement)		
General Outcome *Use direct or indirect measurement to solve problems.*	Chapter 3 Chapter 5 Chapter 7	pp. 76–117 pp. 160–193 pp. 242–281
Specific Outcomes		
1. Develop and apply the Pythagorean theorem to solve problems. [CN, PS, R, T, V]	Chapter 3: 3.2, 3.4–3.5 Wrap It Up! Challenge in Real Life: Building a Staircase Chapters 1–4 Review Task: Test the Efficiency of a Ramp	pp. 88–94, 101–111 p. 115 p. 117 pp. 156–158 p. 159
2. Draw and construct nets for 3-D objects. [C, CN, PS, V]	Chapter 5: 5.2–5.4 Wrap It Up! Challenge in Real Life: Design a Bedroom Chapters 5–8 Review Task: Fraction Cubes	pp. 170–187 p. 191 p. 193 pp. 324–326 p. 327
3. Determine the surface area of: • right rectangular prisms • right triangular prisms • right cylinders to solve problems. [C, CN, PS, R,V]	Chapter 5: 5.3–5.4 Wrap It Up! Math Games Challenge in Real Life: Design a Bedroom Chapters 5–8 Review	pp. 176–187 p. 191 p. 192 p. 193 pp. 324–326

Strand/Outcome	Chapter/Section	Pages
4. Develop and apply formulas for determining the volume of right prisms and right cylinders. [C, CN, PS, R, V]	Chapter 7: 7.1–7.4 Wrap It Up! Math Games Challenge in Real Life: Create a Storage Container Chapters 5–8 Review	pp. 246–275 p. 279 p. 280 p. 281 pp. 324–326
Strand: Shape and Space (3-D Objects and 2-D Objects)		
General Outcome *Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.*	Chapter 5	pp. 160–193
Specific Outcomes		
5. Draw and interpret top, front and side views of 3-D objects composed of right rectangular prisms. [C, CN, R, T, V]	Chapter 5: 5.1 Wrap It Up! Challenge in Real Life: Design a Bedroom Challenge in Real Life: Create a Storage Container Chapters 5–8 Review	pp. 164–169 p. 191 p. 193 p. 281 pp. 324–326
Strand: Shape and Space (Transformations)		
General Outcome *Describe and analyze position and motion of objects and shapes.*	Chapter 12	pp. 442–471
Specific Outcomes		
6. Demonstrate an understanding of tessellation by: - explaining the properties of shapes that make tessellating possible - creating tessellations - identifying tessellations in the environment. [C, CN, PS, T, V]	Chapter 12: 12.1–12.4 Wrap It Up! Math Games Challenge in Real Life: Border Design Chapters 9–12 Review Task: Put Out a Forest Fire	pp. 446–465 p. 469 p. 470 p. 471 pp. 472–474 p. 475
Strand: Statistics and Probability (Data Analysis)		
General Outcome *Collect, display and analyze data to solve problems.*	Chapter 1	pp. 2–41
Specific Outcomes		
1. Critique ways in which data is presented. [C, R, T, V]	Chapter 1: 1.1–1.3 Wrap It Up! Math Games Challenge in Real Life: Keep Your Community Green Chapters 1–4 Review	pp. 6–35 p. 39 p. 40 p. 41 pp. 156–158

Strand/Outcome	Chapter/Section	Pages
Strand: Statistics and Probability (Chance and Uncertainty)		
General Outcome *Use experimental or theoretical probabilities to represent and solve problems involving uncertainty.*	Chapter 11	pp. 406–441
Specific Outcomes		
2. Solve problems involving the probability of independent events. [C, CN, PS, T]	Chapter 11: 11.1–11.3 Wrap It Up! Math Games Challenge in Real Life: Treasure Hunt Chapters 9–12 Review Task: Put Out a Forest Fire	pp. 410–435 p. 438 p. 440 p. 441 pp. 472–474 p. 475