CHAPTER CORRELATION

Unit 1 Measurement

Chapter 1: Measurement Systems

Strand/Outcome	Chapter/Section	Pages
Strand: Measurement		
General Outcome *Develop spatial sense and proportional reasoning.*		
Specific Outcomes		
1. Solve problems that involve linear measurement, using: • SI and imperial units of measure • estimation strategies • measurement strategies. [ME, PS, V]	Chapter 1: 1.1–1.3 Unit 1 Project	pp. 8–53, 150–151, 154–155 pp. 19, 33, 36–37, 46, 150
2. Apply proportional reasoning to problems that involve conversions between SI and imperial units of measure. [C, ME, PS]	Chapter 1: 1.3 Unit 1 Project	pp. 36–47, 50–53, 150–151, 154–155 pp. 36–37, 46, 150

Chapter 2: Surface Area and Volume

Strand/Outcome	Chapter/Section	Pages
Strand: Measurement		
General Outcome *Develop spatial sense and proportional reasoning.*		
Specific Outcomes		
1. Solve problems that involve linear measurement, using: • SI and imperial units of measure • estimation strategies • measurement strategies. [ME, PS, V]	Chapter 2: 2.1 Unit 1 Project	pp. 56–65, 92, 95–97, 151–152, 154–155 pp. 56–57, 150
3. Solve problems, using SI and imperial units, that involve the surface area and volume of 3-D objects, including: • right cones • right cylinders • right prisms • right pyramids • spheres. [CN, PS, R, V]	Chapter 2: 2.2–2.3 Unit 1 Project	pp. 66–97, 151–152, 154–155 pp. 76, 90–91, 150
Strand: Algebra and Number		
General Outcome *Develop algebraic reasoning and number sense.*		
Specific Outcomes		
3. Demonstrate an understanding of powers with integral and rational exponents. [C, CN, PS, R]	Chapter 2: 2.2–2.3 Unit 1 Project	pp. 66–97, 151–152, 154–155 pp. 76, 90–91, 159

Chapter 3: Right Triangle Trigonometry

Strand/Outcome	Chapter/Section	Pages
Strand: Measurement		
General Outcome *Develop spatial sense and proportional reasoning.*		
Specific Outcomes		
4. Develop and apply the primary trigonometric ratios (sine, cosine, tangent) to solve problems that involve right triangles. [C, CN, PS, R, T, V]	Chapter 3: 3.1–3.4 Unit 1 Project	pp. 100–149, 152–155 pp. 106–108, 122, 144, 150

Unit 2 Algebra and Number

Chapter 4: Exponents

Strand/Outcome	Chapter/Section	Pages
Strand: Algebra and Number		
General Outcome *Develop algebraic reasoning and number sense.*		
Specific Outcomes		
1. Demonstrate an understanding of factors of whole numbers by determining the: • prime factors • greatest common factor • least common multiple • square root • cube root. [CN, ME, R]	Chapter 4: 4.1 Unit 2 Project	pp. 162–171, 206, 209–210, 266–267, 270–271 pp. 169–170
2. Demonstrate an understanding of irrational numbers by: • representing, identifying and simplifying irrational numbers • ordering irrational numbers. [CN, ME, R, V]	Chapter 4 4.4 Unit 2 Project	pp. 194–205, 208–211, 266–267, 270–271 pp. 195, 204–205
3. Demonstrate an understanding of powers with integral and rational exponents. [C, CN, PS, R]	Chapter 4: 4.2–4.4 Unit 2 Project	pp. 172–211, 266–267, 270–271 pp. 195, 205

Chapter 5: Polynomials

Strand/Outcome	Chapter/Section	Pages
Strand: Algebra and Number		
General Outcome *Develop algebraic reasoning and number sense.*		
Specific Outcomes		
1. Demonstrate an understanding of factors of whole numbers by determining the: • prime factors • greatest common factor • least common multiple • square root • cube root. [CN, ME, R]	Chapter 5: 5.2	pp. 224–233, 262–265, 268
4. Demonstrate an understanding of the multiplication of polynomial expressions (limited to monomials, binomials and trinomials), concretely, pictorially and symbolically. [CN, R, V]	Chapter 5: 5.1 Unit 2 Project	pp. 214–223, 262, 264–265, 267–271 pp. 220–221
5. Demonstrate an understanding of common factors and trinomial factoring, concretely, pictorially and symbolically. [C, CN, R, V]	Chapter 5: 5.2–5.4 Unit 2 Project	pp. 224–265, 268–269, 271 pp. 246–247, 257–258

Unit 3 Relations and Functions

Chapter 6: Linear Relations and Functions

Strand/Outcome	Chapter/Section	Pages
Strand: Relations and Functions		
General Outcome *Develop algebraic and graphical reasoning through the study of relations.*		
Specific Outcomes		
1. Interpret and explain the relationships among data, graphs and situations. [C, CN, R, T, V]	Chapter 6: 6.1, 6.3	pp. 268–278, 292–304
2. Demonstrate an understanding of relations and functions. [C, R, V]	Chapter 6: 6.2 Unit 3 Project	pp. 279–291 pp. 402–405
3. Demonstrate an understanding of slope with respect to: • rise and run • line segments and lines • rate of change • parallel lines • perpendicular lines. [PS, R, V]	Chapter 6: 6.4–6.5 Unit 3 Project	pp. 305–329 pp. 264–265, 312, 314
4. Describe and represent linear relations, using: • words • ordered pairs • tables of values • graphs • equations. [C, CN, R, V]	Chapter 6: 6.1 Unit 3 Project	p. 268–278 pp. 402–405
8. Represent a linear function, using function notation. [CN, ME, V]	Chapter 6: 6.2 Unit 3 Project	pp. 279–291 p. 402–405

Chapter 7: Linear Equations and Graphs

Strand/Outcome	Chapter/Section	Pages
Strand: Relations and Functions		
General Outcome *Develop algebraic and graphical reasoning through the study of relations.*		
Specific Outcomes		
1. Interpret and explain the relationships among data, graphs, and situations.	Chapter 7: 7.1–7.2 Unit 3 Project	pp. 340–369 p. 355
3. Demonstrate an understanding of slope with respect to: • rise and run • line segments and lines • rate of change • parallel lines • perpendicular lines. [PS, R, V]	Chapter 7: 7.1, 7.4 Unit 3 Project	pp. 340–356, 383–395 pp. 355, 402–405
5. Determine the characteristics of the graphs of linear relations, including the: • intercepts • slope • domain • range. [CN, PS, R, V]	Chapter 7: 7.1–7.2 Unit 3 Project	pp. 340–369 pp. 355, 382, 402–405
6. Relate linear relations expressed in: • slope–intercept form ($y = mx + b$) • general form ($Ax + By + C = 0$) • slope–point form ($y – y1 = m(x – x1)$) to their graphs. [CN, R, T, V]	Chapter 7: 7.1–7.3 Unit 3 Project	pp. 340–382 pp. 355, 382, 402–405
7. Determine the equation of a linear relation, given: • a graph • a point and the slope • two points • a point and the equation of a parallel or perpendicular line to solve problems. [CN, PS, R, V]	Chapter 7: 7.1–7.4 Unit 3 Project	pp. 340–395 pp. 355, 382, 402–405

Unit 4 Systems of Equations

Chapter 8: Solving Systems of Linear Equations Graphically

Strand/Outcome	Chapter/Section	Pages
Strand: Relations and Functions		
General Outcome *Develop algebraic and graphical reasoning through the study of relations.*		
Specific Outcomes		
1. Interpret and explain the relationships among data, graphs, and situations. [C, CN, R, T, V]	Chapter 8: 8.1–8.3 Unit 4 Project	pp. 416–459 pp. 430, 442, 506
3. Demonstrate an understanding of slope with respect to: • rise and run • line segments and lines • rate of change • parallel lines • perpendicular lines. [PS, R, V]	Chapter 8: 8.3	pp. 446–459
7. Determine the equation of a linear relation, given: • a graph • a point and the slope • two points • a point and the equation of a parallel or perpendicular line to solve problems. [CN, PS, R, V]	Chapter 8: 8.2–8.3 Unit 4 Project	pp. 432–459 pp. 442, 506
9. Solve problems that involve systems of linear equations in two variables, graphically and algebraically. [CN, PS, R, T, V]	Chapter 8: 8.1–8.3 Unit 4 Project	pp. 416–459 pp. 430, 442, 506

Chapter 9: Solving Systems of Linear Equations Algebraically

Strand/Outcome	Chapter/Section	Pages
Strand: Relations and Functions		
General Outcome *Develop algebraic and graphical reasoning through the study of relations.*		
Specific Outcomes		
9. Solve problems that involve systems of linear equations in two variables, graphically and algebraically. [CN, PS, R, T, V]	Chapter 9: 9.1–9.3 Unit 4 Project	pp. 468–501 pp. 477, 490, 500, 506