



### Correlation to WNCPCurriculum and Grade 7 Classroom Resources

**Note:** Leaps and Bounds 7/8 is a math intervention resource and therefore does not include new content and concepts being introduced to students for the first time in Grade 8. Leaps and Bounds 7/8 includes content from Grades 5 to 7 that will prepare students who are struggling for work at the Grade 7 or 8 level.

GRADE 7 Core Resources Correlation with Grade 7 WNCPCore resources				INTERVENTION Resources and Outcomes Correlation between <i>Leaps and Bounds 7/8</i> and prerequisite outcomes from WNCPC Grades 5 and 6.		
Grade 7 WNCPCoutcomes	Math Focus 7	Math Makes Sense 7	MathLinks 7	Leaps and Bounds 7/8 Topics	Grade 6 WNCPCoutcomes	Grade 5 WNCPCoutcomes
<b>Number</b>						
1. Determine and explain why a number is divisible by 2, 3, 4, 5, 6, 8, 9 or 10, and why a number cannot be divided by 0. [C, R]	Chapter 1: Lessons 1.1, 1.2, 1.3, 1.4, 1.5, 1.6, 1.7, 1.8, Math Game, Curious Math, Chapter Task	Unit 1, Lessons 1.1, 1.2	Chapter 6: 6.1 Math Games	<b>Multiplicative Relationships</b> <i>Pathway 1:</i> Divisibility Rules <i>Pathway 2:</i> Prime Numbers and Perfect Squares <i>Pathway 3:</i> Factors and Multiples	3. Demonstrate an understanding of factors and multiples by: <ul style="list-style-type: none"> <li>determining multiples and factors of numbers less than 100</li> <li>identifying prime and composite numbers</li> <li>solving problems involving multiples.</li> </ul> [PS, R, V]	
				<b>Whole Number Operations</b> <i>Pathway 1:</i> Order of Operations <i>Pathway 2:</i> Dividing Whole Numbers <i>Pathway 3:</i> Multiplying Whole Numbers  <b>Relating Situations to Operations</b> <i>Pathway 1:</i> Recognizing Division Situations <i>Pathway 2:</i> Recognizing Multiplication Situations	2. Solve problems involving large numbers, using technology. [ME, PS, T]  9. Explain and apply the order of operations, excluding exponents, with and without technology (limited to whole numbers). [CN, ME, PS, T]	2. Use estimation strategies, including: <ul style="list-style-type: none"> <li>front-end rounding</li> <li>compensation</li> <li>compatible numbers in problem-solving contexts.</li> </ul> [C, CN, ME, PS, R, V]  3. Apply mental mathematics strategies and number properties, such as: <ul style="list-style-type: none"> <li>skip counting from a known fact</li> <li>using doubling or halving</li> <li>using patterns in the 9s facts</li> <li>using repeated doubling or halving to determine answers for basic multiplication facts to 81 and related division facts.</li> </ul> [C, CN, ME, R, V]

						<p>4. Apply mental mathematics strategies for multiplication, such as:</p> <ul style="list-style-type: none"> <li>• annexing then adding zero</li> <li>• halving and doubling</li> <li>• using the distributive property.</li> </ul> <p>[C, ME, R]</p> <p>5. Demonstrate an understanding of multiplication (2-digit by 2-digit) to solve problems. [C, CN, PS, V]</p> <p>6. Demonstrate, with and without concrete materials, an understanding of division (3-digit by 1-digit) and interpret remainders to solve problems. [C, CN, PS]</p>
<p>2. Demonstrate an understanding of the addition, subtraction, multiplication and division of decimals (for more than 1-digit divisors or 2-digit multipliers, the use of technology is expected) to solve problems. [ME, PS, T]</p>	<p>Chapter 3: Lessons 3.1, 3.2, 3.3, 3.4, 3.5, 3.6, 3.7, 3.8, Math Game, Chapter Task</p>	<p>Unit 3, Lessons 3.3, 3.4, 3.5, 3.6, Unit Problem</p>	<p>Chapter 2: 2.1–2.4 Math Games Challenge in Real Life Task</p>	<p><b>Decimal Operations</b>  <i>Pathway 2: Dividing Decimals by Whole Numbers</i>  <i>Pathway 3: Multiplying with Decimals</i>  <i>Pathway 4: Adding and Subtracting Decimals (See also <i>Leaps and Bounds 5/6.</i>)</i></p> <p><b>Relating Situations to Operations</b>  <i>Pathway 1: Recognizing Division Situations</i>  <i>Pathway 2: Recognizing Multiplication Situations</i>  <i>Pathway 3: Recognizing Subtraction Situations</i></p>	<p>8. Demonstrate an understanding of multiplication and division of decimals (1-digit whole number multipliers and 1-digit natural number divisors). [C, CN, ME, PS, R, V]</p>	<p>11. Demonstrate an understanding of addition and subtraction of decimals (limited to thousandths). [C, CN, PS, R, V]</p>
<p>3. Solve problems involving percents from 1% to 100%. [C, CN, PS, R, T]</p>	<p>Chapter 4: Lessons 4.1, 4.2, 4.3, 4.4, 4.5, 4.6, 4.7, Math Game, Curious Math, Chapter Task</p>	<p>Unit 3, Lessons 3.7, 3.8, Unit Problem</p>	<p>Chapter 4: 4.1–4.3 Math Games Challenge in Real Life Task Challenge in Real Life</p>	<p><b>Rates, Percents, and Ratios</b>  <i>Pathway 2: Using Percents</i>  <i>Pathway 3: Using Ratios</i></p>	<p>5. Demonstrate an understanding of ratio, concretely, pictorially and symbolically. [C, CN, PS, R, V]</p> <p>6. Demonstrate an understanding of percent, (limited to whole numbers) concretely, pictorially and symbolically. [C, CN, PS, R, V]</p>	

Grade 7 WNCP outcomes	Math Focus 7	Math Makes Sense 7	MathLinks 7	Leaps and Bounds 7/8 Topics	Grade 6 WNCP outcomes	Grade 5 WNCP outcomes
4. Demonstrate an understanding of the relationship between positive repeating decimals and positive fractions, and positive terminating decimals and positive fractions. [C, CN, R, T]	Chapter 3: Lessons 2.9, 2.10, Math Game	Unit 3, Lesson 3.1	Chapter 4: 4.1–4.2 Chapter 10: 10.1 Challenge in Real Life	<b>Representing and Comparing Decimals</b> <i>Pathway 1:</i> Decimals with Many Places <i>Pathway 2:</i> Comparing Decimals <i>Pathway 3:</i> Representing Decimal Thousandths <i>Pathway 4:</i> Multiplying and Dividing by 10s	1. Demonstrate an understanding of place value for numbers: • greater than one million • less than one thousandth. [C, CN, R, T]	8. Describe and represent decimals (tenths, hundredths, thousandths) concretely, pictorially and symbolically. [C, CN, R, V]  9. Relate decimals to fractions (to thousandths). [CN, R, V]  10. Compare and order decimals (to thousandths), by using: • benchmarks • place value • equivalent decimals. [CN, R, V]
5. Demonstrate an understanding of adding and subtracting positive fractions and mixed numbers, with like and unlike denominators, concretely, pictorially and symbolically (limited to positive sums and differences). [C, CN, ME, PS, R, V]	Chapter 2: Lessons 2.1, 2.2, 2.3, 2.4, 2.5, 2.6, 2.7, 2.8, 2.9, 2.10, 2.11, Math Games, Curious Math, Chapter Task	Unit 5, Lessons 5.1, 5.2, 5.3, 5.4, 5.5, 5.6, 5.7, Unit Problem	Chapter 6: 6.2, 6.3, Challenge in Real Life Chapter 7: 7.1–7.4 Math Games Challenge in Real Life Task	<b>Comparing Fractions</b> <i>Pathway 1:</i> Fractions and Mixed Numbers <i>Pathway 2:</i> Proper Fractions <i>Pathway 3:</i> Equivalent Fractions  <b>Fraction Operations</b> <i>Pathway 1:</i> Repeated Addition of Fractions <i>Pathway 2:</i> Adding and Subtracting Mixed Numbers <i>Pathway 3:</i> Subtracting Fractions <i>Pathway 4:</i> Adding Fractions	4. Relate improper fractions to mixed numbers. [CN, ME, R, V]	7. Demonstrate an understanding of fractions by using concrete and pictorial representations to: • create sets of equivalent fractions • compare fractions with like and unlike denominators. [C, CN, PS, R, V]
6. Demonstrate an understanding of addition and subtraction of integers, concretely, pictorially and symbolically. [C, CN, PS, R, V]	Chapter 6: Lessons 6.1, 6.2, 6.3, 6.4, 6.5, 6.6, 6.7, Math Game, Curious Math, Chapter Task	Unit 2, Lessons 2.1, 2.2, 2.3, 2.4, 2.5, Unit Problem	Chapter 9: 9.1–9.5 Math Games Challenge in Real Life	<b>Integers</b> <i>Pathway 1:</i> Subtracting Integers <i>Pathway 2:</i> Adding Integers <i>Pathway 3:</i> Representing and Comparing Integers	7. Demonstrate an understanding of integers, concretely, pictorially and symbolically. [C, CN, R, V]	

Grade 7 WNCP outcomes	Math Focus 7	Math Makes Sense 7	MathLinks 7	Leaps and Bounds 7/8 Topics	Grade 6 WNCP outcomes	Grade 5 WNCP outcomes
7. Compare and order positive fractions, positive decimals (to thousandths) and whole numbers by using: <ul style="list-style-type: none"> <li>• benchmarks</li> <li>• place value</li> <li>• equivalent fractions and/or decimals.</li> </ul> [CN, R, V]	Chapter 2: Lesson 2.1 Chapter 3: Lesson 3.9 (also in questioning in Lessons 3.3 and 3.4)	Unit 3, Lesson 3.2	Chapter 4: 4.1, 4.2 Chapter 6: 6.2, 6.3 Chapter 7: 7.1	<b>Representing Large Whole Numbers</b> <i>Pathway 1:</i> Using Decimals for Large Whole Numbers <i>Pathway 2:</i> Representing Millions and Billions <i>Pathway 3:</i> Representing Six-Digit Numbers  <b>Representing and Comparing Decimals</b> <i>Pathway 1:</i> Decimals with Many Places <i>Pathway 2:</i> Comparing Decimals <i>Pathway 3:</i> Representing Decimal Thousandths <i>Pathway 4:</i> Multiplying and Dividing by 10s  <b>Comparing Fractions</b> <i>Pathway 1:</i> Fractions and Mixed Numbers <i>Pathway 2:</i> Proper Fractions <i>Pathway 3:</i> Equivalent Fractions	1. Demonstrate an understanding of place value for numbers: <ul style="list-style-type: none"> <li>• greater than one million</li> <li>• less than one thousandth.</li> </ul> [C, CN, R, T]  2. Solve problems involving large numbers, using technology. [ME, PS, T]  4. Relate improper fractions to mixed numbers. [CN, ME, R, V]	1. Represent and describe whole numbers to 1 000 000. [C, CN, V, T]  7. Demonstrate an understanding of fractions by using concrete and pictorial representations to: <ul style="list-style-type: none"> <li>• create sets of equivalent fractions</li> <li>• compare fractions with like and unlike denominators.</li> </ul> [C, CN, PS, R, V]  8. Describe and represent decimals (tenths, hundredths, thousandths) concretely, pictorially and symbolically. [C, CN, R, V]  9. Relate decimals to fractions (to thousandths). [CN, R, V]  10. Compare and order decimals (to thousandths), by using: <ul style="list-style-type: none"> <li>• benchmarks</li> <li>• place value</li> <li>• equivalent decimals.</li> </ul> [CN, R, V]
<b>Patterns and Relations (Patterns)</b>						
1. Demonstrate an understanding of oral and written patterns and their equivalent linear relations. [C, CN, R]	Chapter 9: Lessons 9.1, 9.2, Curious Math, Chapter Task	Unit 1, Lessons 1.3, 1.4, Unit Problem	Chapter 10: 10.1, 10.2, 10.4 Task	<b>Patterns</b> <i>Pathway 1:</i> Linear Relations <i>Pathway 2:</i> Representing Patterns <i>Pathway 3:</i> Exploring Simple Patterns	1. Demonstrate an understanding of the relationship within tables of values to solve problems. [C, CN, PS, R]  2. Represent and describe patterns and relationships using graphs and tables. [C, CN, ME, PS, R, V]	1. Determine the pattern rule to make predictions about subsequent elements. [C, CN, PS, R, V]
2. Create a table of values from a linear relation, graph the table of values, and analyze the graph to draw conclusions and solve problems. [C, CN, R, V]	Chapter 9: Lessons 9.4, 9.7 (also in Chapter 1: Lesson 1.8)	Unit 1, Lessons 1.5, 1.6, Unit Problem	Chapter 10: 10.3, 10.4 Challenge in Real Life Task	<b>Patterns</b> <i>Pathway 1:</i> Linear Relations <i>Pathway 2:</i> Representing Patterns <i>Pathway 3:</i> Exploring Simple Patterns	1. Demonstrate an understanding of the relationship within tables of values to solve problems. [C, CN, PS, R]  2. Represent and describe patterns and relationships using graphs and tables. [C, CN, ME, PS, R, V]	1. Determine the pattern rule to make predictions about subsequent elements. [C, CN, PS, R, V]

Grade 7 WNCP outcomes	Math Focus 7	Math Makes Sense 7	MathLinks 7	Leaps and Bounds 7/8 Topics	Grade 6 WNCP outcomes	Grade 5 WNCP outcomes
<b>Patterns and Relations (Variables and Equations)</b>						
3. Demonstrate an understanding of preservation of equality by: • modelling preservation of equality, concretely, pictorially and symbolically • applying preservation of equality to solve equations. [C, CN, PS, R, V]	Chapter 9: Lesson 9.8, Chapter Task	Unit 6, Lessons 6.2, 6.3, 6.4, 6.5, Unit Problem	Chapter 11: 11.2–11.4 Math Games	<b>Algebra</b> <i>Pathway 1: Solving Problems Using Equations</i> <i>Pathway 2: Solving Simple Equations</i> <i>Pathway 3: Using Variables</i>	3. Represent generalizations arising from number relationships using equations with letter variables. [C, CN, PS, R, V]  4. Demonstrate and explain the meaning of preservation of equality concretely, pictorially and symbolically. [C, CN, PS, R, V]	2. Solve problems involving single-variable, one-step equations with whole number coefficients and whole number solutions. [C, CN, PS, R]
4. Explain the difference between an expression and an equation. [C, CN]	Chapter 9: Lessons 9.1, 9.4, 9.5, Chapter Task	Unit 1, Lesson 1.7 Unit 6, Lesson 6.1, Unit Problem	Chapter 10: 10.2 (partial) Chapter 11: 11.1	<b>Algebra</b> <i>Pathway 3: Using Variables</i>	3. Represent generalizations arising from number relationships using equations with letter variables. [C, CN, PS, R, V]  4. Demonstrate and explain the meaning of preservation of equality concretely, pictorially and symbolically. [C, CN, PS, R, V]	
5. Evaluate an expression given the value of the variable(s). [CN, R]	Chapter 9: Lesson 9.2	Unit 1, Lessons 1.3, 1.4, Unit Problem Unit 6, Unit Problem	Chapter 10: 10.3 Math Games Task	<b>Algebra</b> <i>Pathway 3: Using Variables</i>	3. Represent generalizations arising from number relationships using equations with letter variables. [C, CN, PS, R, V]	
6. Model and solve problems that can be represented by one-step linear equations of the form $x + a = b$ , concretely, pictorially and symbolically, where $a$ and $b$ are integers.[CN, PS, R, V]	Chapter 9: Lessons 9.5, 9.6, 9.7, 9.8	Unit 6, Lessons 6.3, 6.4, 6.5	Chapter 11: 11.2 Math Games	<b>Algebra</b> <i>Pathway 1: Solving Problems Using Equations</i> <i>Pathway 2: Solving Simple Equations</i> <i>Pathway 3: Using Variables</i>	3. Represent generalizations arising from number relationships using equations with letter variables. [C, CN, PS, R, V]  4. Demonstrate and explain the meaning of preservation of equality concretely, pictorially and symbolically. [C, CN, PS, R, V]	2. Solve problems involving single-variable, one-step equations with whole number coefficients and whole number solutions. [C, CN, PS, R]

Grade 7 WNCP outcomes	Math Focus 7	Math Makes Sense 7	MathLinks 7	Leaps and Bounds 7/8 Topics	Grade 6 WNCP outcomes	Grade 5 WNCP outcomes
7. Model and solve problems that can be represented by linear equations of the form: • $ax + b = c$ • $ax = b$ • $x/a = b, a \neq 0$ concretely, pictorially and symbolically, where $a, b,$ and $c$ are whole numbers. [CN, PS, R, V]	Chapter 9: Lessons 9.3, 9.5, 9.6, 9.7, 9.8	Unit 1, Lesson 1.8, Unit Problem Unit 6, Lessons 6.1, 6.2, 6.4, 6.5, Unit Problem	Chapter 11: 11.3–11.4 Math Games Challenge in Real Life Task	<b>Algebra</b> <i>Pathway 1: Solving Problems Using Equations</i> <i>Pathway 2: Solving Simple Equations</i> <i>Pathway 3: Using Variables</i>	3. Represent generalizations arising from number relationships using equations with letter variables. [C, CN, PS, R, V]  4. Demonstrate and explain the meaning of preservation of equality concretely, pictorially and symbolically. [C, CN, PS, R, V]	2. Solve problems involving single-variable, one-step equations with whole number coefficients and whole number solutions. [C, CN, PS, R]
<b>Shape and Space (Measurement)</b>						
1. Demonstrate an understanding of circles by: • describing the relationships among radius, diameter and circumference of circles • relating circumference to pi • determining the sum of the central angles • constructing circles with a given radius or diameter • solving problems involving the radii, diameters and circumferences of circles. [C, CN, R, V]	Chapter 5: Lessons 5.3, 5.4, 5.5, 5.6, 5.7, Chapter Task	Unit 4, Lessons 4.1, 4.2, Unit Problem	Chapter 8: 8.1, 8.2, 8.5 Challenge in Real Life Task	<b>Geometric Drawings</b> <i>Pathway 3: Drawing Circles</i>  <b>Area and Perimeter</b> <i>Pathway 1: Area of Circles</i> <i>Pathway 2: Circumference of Circles</i>  <b>Angles</b> <i>Pathway 2: Drawing Angles</i> <i>Pathway 3: Measuring Angles</i>  <b>Metric Units</b> <i>Pathway 1: Renaming Units</i> <i>Pathway 2: Selecting a Unit</i>	1. Demonstrate an understanding of angles by: • identifying examples of angles in the environment • classifying angles according to their measure • estimating the measure of angles using $45^\circ, 90^\circ$ and $180^\circ$ as reference angles • determining angle measures in degrees • drawing and labelling angles when the measure is specified. [C, CN, ME, V]  2. Demonstrate that the sum of interior angles is: • $180^\circ$ in a triangle • $360^\circ$ in a quadrilateral. [C, R]	
2. Develop and apply a formula for determining the area of: • triangles • parallelograms • circles. [CN, PS, R, V]	Chapter 5: Lessons 5.1, 5.2, 5.5, 5.6, 5.7, Curious Math, Math Game, Chapter Task	Unit 4, Lessons 4.3, 4.4, 4.5, Game, Unit Problem	Chapter 3: 3.4, 3.5 Task Chapter 8: 8.3	<b>Area and Perimeter</b> <i>Pathway 1: Area of Circles</i> <i>Pathway 4: Area of Parallelograms and Triangles</i> <i>Pathway 5: Area and Perimeter of Rectangles</i>  <b>Metric Units</b> <i>Pathway 1: Renaming Units</i> <i>Pathway 2: Selecting a Unit</i>	3. Develop and apply a formula for determining the: • perimeter of polygons • area of rectangles • volume of right rectangular prisms. [C, CN, PS, R, V]	1. Design and construct different rectangles given either perimeter or area, or both (whole numbers) and draw conclusions. [C, CN, PS, R, V] 2. Demonstrate an understanding of measuring length (mm) by: • selecting and justifying referents for the unit mm • modelling and describing the relationship between mm and cm units, and between mm and m units. [C, CN, ME, PS, R, V]

Grade 7 WNCP outcomes	Math Focus 7	Math Makes Sense 7	MathLinks 7	Leaps and Bounds 7/8 Topics	Grade 6 WNCP outcomes	Grade 5 WNCP outcomes
				<b>Volume and Surface Area</b> <i>Pathway 3: Volume of Rectangular Prisms</i>  <b>Metric Units</b> <i>Pathway 1: Renaming Units</i> <i>Pathway 2: Selecting a Unit</i>		3. Demonstrate an understanding of volume by: <ul style="list-style-type: none"> <li>• selecting and justifying referents for <math>\text{cm}^3</math> or <math>\text{m}^3</math> units</li> <li>• estimating volume by using referents for <math>\text{cm}^3</math> or <math>\text{m}^3</math></li> <li>• measuring and recording volume (<math>\text{cm}^3</math> or <math>\text{m}^3</math>)</li> <li>• constructing rectangular prisms for a given volume.</li> </ul> [C, CN, ME, PS, R, V]  4. Demonstrate an understanding of capacity by: <ul style="list-style-type: none"> <li>• describing the relationship between mL and L</li> <li>• selecting and justifying referents for mL or L units</li> <li>• estimating capacity by using referents for mL or L</li> <li>• measuring and recording capacity (mL or L).</li> </ul> [C, CN, ME, PS, R, V]
<b>Shape and Space (3-D Objects and 2-D Shapes)</b>						
3. Perform geometric constructions, including: <ul style="list-style-type: none"> <li>• perpendicular line segments</li> <li>• parallel line segments</li> <li>• perpendicular bisectors</li> <li>• angle bisectors.</li> </ul> [CN, R, V]	Chapter 7: Lessons 7.6, 7.7, 7.8, Curious Math, Chapter Task	Unit 8, Lessons 8.1, 8.2, 8.3, 8.4, Unit Problem	Chapter 3: 3.1–3.3 Math Games Challenge in Real Life	<b>Geometric Drawings</b> <i>Pathway 1: Bisecting Angles and Line Segments</i> <i>Pathway 2: Drawing Lines and Polygons</i> <i>Pathway 3: Drawing Circles</i> <i>Pathway 4: Drawing Triangles</i>	4. Construct and compare triangles, including: <ul style="list-style-type: none"> <li>• scalene</li> <li>• isosceles</li> <li>• equilateral</li> <li>• right</li> <li>• obtuse</li> <li>• acute</li> </ul> in different orientations. [C, PS, R, V]	5. Describe and provide examples of edges and faces of 3-D objects and sides of 2-D shapes that are: <ul style="list-style-type: none"> <li>• parallel</li> <li>• intersecting</li> <li>• perpendicular</li> <li>• vertical</li> <li>• horizontal.</li> </ul> [C, CN, R, T, V]
				<b>2-D Shapes</b> <i>Pathway 3: Sorting and Classifying Polygons</i>	5. Describe and compare the sides and angles of regular and irregular polygons. [C, PS, R, V]	6. Identify and sort quadrilaterals, including: <ul style="list-style-type: none"> <li>• rectangles</li> <li>• squares</li> <li>• trapezoids</li> <li>• parallelograms</li> <li>• rhombuses according to their attributes. [C, R, V]</li> </ul>

Grade 7 WNCP outcomes	Math Focus 7	Math Makes Sense 7	MathLinks 7	Leaps and Bounds 7/8 Topics	Grade 6 WNCP outcomes	Grade 5 WNCP outcomes
<b>Shape and Space (Transformations)</b>						
4. Identify and plot points in the four quadrants of a Cartesian plane using integral ordered pairs. [C, CN, V]	Chapter 7: Lessons 7.1, 7.2, 7.3	Unit 8, Lessons 8.5, 8.6, 8.7, Unit Problem	Chapter 1: 1.1–1.2 Math Games Challenge in Real Life	<b>Location</b> <i>Pathway 1:</i> Plotting Points in 4 Quadrants <i>Pathway 2:</i> Plotting Points on a Grid	8. Identify and plot points in the first quadrant of a Cartesian plane using whole number ordered pairs. [C, CN, V]	
5. Perform and describe transformations (translations, rotations or reflections) of a 2-D shape in all four quadrants of a Cartesian plane (limited to integral number vertices). [C, CN, PS, T, V]	Chapter 7: Lessons 7.1, 7.2, 7.3, 7.4, 7.5, Math Game	Unit 8, Lessons 8.6, 8.7 Unit 8, Technology Lesson, Unit Problem	Chapter 1: 1.3–1.4 Challenge in Real Life	<b>Transformations</b> <i>Pathway 3:</i> Combining Transformations <i>Pathway 4:</i> Performing Single Transformations	6. Perform a combination of translation(s), rotation(s) and/or reflection(s) on a single 2-D shape, with and without technology, and draw and describe the image. [C, CN, PS, T, V]  7. Perform a combination of successive transformations of 2-D shapes to create a design, and identify and describe the transformations. [C, CN, T, V]  9. Perform and describe single transformations of a 2-D shape in the first quadrant of a Cartesian plane (limited to whole number vertices). [C, CN, PS, T, V]	7. Perform a single transformation (translation, rotation or reflection) of a 2-D shape, (with and without technology) and draw and describe the image. [C, CN, T, V]  8. Identify a single transformation including a translation, a rotation and a reflection of 2-D shapes. [C, T, V]
<b>Statistics and Probability (Data Analysis)</b>						
1. Demonstrate an understanding of central tendency and range by: • determining the measures of central tendency (mean, median, mode) and range • determining the most appropriate measures of central tendency to report findings. [C, PS, R, T]	Chapter 8: Lessons 8.1, 8.2, 8.3, 8.4, 8.5, 8.6, Curious Math, Math Game, Chapter Task	Unit 7, Lessons 7.1, 7.2, 7.4, Technology Lesson, Unit Problem	Chapter 12: 12.1–12.3, 12.5 Math Games Challenge in Real Life Task	<b>Summarizing Data</b> <i>Pathway 1:</i> Effects of Changing Data <i>Pathway 2:</i> Using mean, Median, and Mode <i>Pathway 3:</i> Calculating the Mean	2. Select, justify and use appropriate methods of collecting data, including: • questionnaires • experiments • databases • electronic media. [C, PS, T]	1. Differentiate between first-hand and second-hand data. [C, R, T, V]



Grade 7 WNCP outcomes	Math Focus 7	Math Makes Sense 7	MathLinks 7	Leaps and Bounds 7/8 Topics	Grade 6 WNCP outcomes	Grade 5 WNCP outcomes
2. Determine the effect on the mean, median and mode when an outlier is included in a data set. [C, CN, PS, R]	Chapter 8: Lessons 8.4, 8.5, 8.6	Unit 7, Lesson 7.3, Technology Lesson	Chapter 12: 12.3–12.4	<b>Summarizing Data</b> <i>Pathway 1:</i> Effects of Changing Data <i>Pathway 2:</i> Using mean, Median, and Mode <i>Pathway 3:</i> Calculating the Mean		
3. Construct, label and interpret circle graphs to solve problems. [C, CN, PS, R, T, V]	Chapter 11: Lessons 11.1, 11.2, 11.3, 11.4, Math Game, Curious Math, chapter Task	Unit 4, Lessons 4.6, 4.7, Technology Lesson	Chapter 8: 8.4, 8.5 Math Games	<b>Displaying Data</b> <i>Pathway 1:</i> Using Circle Graphs and Line Graphs <i>Pathway 3:</i> Interpreting Graphs	1. Create, label and interpret line graphs to draw conclusions. [C, CN, PS, R, V]  2. Select, justify and use appropriate methods of collecting data, including: • questionnaires • experiments • databases • electronic media. [C, PS, T]  3. Graph collected data and analyze the graph to solve problems. [C, CN, PS]	1. Differentiate between first-hand and second-hand data. [C, R, T, V]  2. Construct and interpret double bar graphs to draw conclusions. [C, PS, R, T, V]
<b>Statistics and Probability (Chance and Uncertainty)</b>						
4. Express probabilities as ratios, fractions and percents. [C, CN, R, T, V]  5. Identify the sample space (where the combined sample space has 36 or fewer elements) for a probability experiment involving two independent events.[C, ME, PS]  6. Conduct a probability experiment to compare the theoretical probability (determined using a tree diagram, table or another graphic organizer) and experimental probability of two independent events. [C, PS, R, T]	Chapter 10	Unit 7	Chapter 5	<b>Probability</b> <i>Pathway 1:</i> Probability: Independent Events <i>Pathway 2:</i> Theoretical Probability <i>Pathway 3:</i> Experimental Probability	4. Demonstrate an understanding of probability by: • identifying all possible outcomes of a probability experiment • differentiating between experimental and theoretical probability • determining the theoretical probability of outcomes in a probability experiment • determining the experimental probability of outcomes in a probability experiment • comparing experimental results with the theoretical probability for an experiment. [C, ME, PS, T]	3. Describe the likelihood of a single outcome occurring using words, such as: • impossible • possible • certain. [C, CN, PS, R]  4. Compare the likelihood of two possible outcomes occurring using words, such as: • less likely • equally likely • more likely. [C, CN, PS, R]