

Kindergarten (WNCP 2006)	Grade 1 (WNCP 2006)	Grade 2 (WNCP 2006)	Grade 3 (WNCP 1995)
<p>Strand: Number</p> <p>General Outcome: Develop number sense.</p> <p>Specific Outcomes</p> <p><i>It is expected that students will:</i></p> <ol style="list-style-type: none"> 1. Say the number sequence by 1s starting anywhere from 1 to 10 and from 10 to 1. [C, CN, V] 2. Recognize, at a glance, and name familiar arrangements of 1 to 5 objects or dots. [C, CN, ME, V] 3. Relate a numeral, 1 to 10, to its respective quantity. [CN, R, V] 4. Represent and describe numbers 2 to 10, concretely and pictorially. [C, CN, ME, R, V] 5. Compare quantities, 1 to 10, using one-to-one correspondence. [C, CN, V] 	<p>Strand: Number</p> <p>General Outcome: Develop number sense.</p> <p>Specific Outcomes</p> <p><i>It is expected that students will:</i></p> <ol style="list-style-type: none"> 1. Say the number sequence, 0 to 100, by: <ul style="list-style-type: none"> • 1s forward and backward between any two given numbers • 2s to 20, forward starting at 0 • 5s and 10s to 100, forward starting at 0. [C, CN, V, ME] 2. Recognize, at a glance, and name familiar arrangements of 1 to 10 objects or dots. [C, CN, ME, V] 3. Demonstrate an understanding of counting by: <ul style="list-style-type: none"> • indicating that the last number said identifies “how many” • showing that any set has only one count • using the counting on strategy • using parts or equal groups to count sets. [C, CN, ME, R, V] 4. Represent and describe numbers to 20 concretely, pictorially and symbolically. [C, CN, V] 5. Compare sets containing up to 20 elements to solve problems using: <ul style="list-style-type: none"> • referents • one-to-one correspondence. [C, CN, ME, 	<p>Strand: Number</p> <p>Specific Outcomes</p> <p>It is expected that students will:</p> <ol style="list-style-type: none"> 1. Say the number sequence from 0 to 100 by: <ul style="list-style-type: none"> • 2s, 5s and 10s, forward and backward, using starting points that are multiples of 2, 5 and 10 respectively • 10s using starting points from 1 to 9 • 2s starting from 1. [C, CN, ME, R] 2. Demonstrate if a number (up to 100) is even or odd. [C, CN, PS, R] 3. Describe order or relative position using ordinal numbers (up to tenth). [C, CN, R] 4. Represent and describe numbers to 100, concretely, pictorially and symbolically. [C, CN, V] 5. Compare and order numbers up to 100. [C, CN, R, V] 6. Estimate quantities to 100 using referents. [C, ME, PS, R] 7. Illustrate, concretely and pictorially, the meaning of place value for numerals to 100. [C, CN, R, V] 8. Demonstrate and explain the 	<p>Number (Number Concepts)</p> <p><i>Students will:</i> • use numbers to describe quantities • represent numbers in multiple ways.</p> <p>General Outcome Develop a number sense for whole numbers 0 to 1000, and explore fractions (fifths and tenths).</p> <p>Specific Outcomes</p> <p><i>It is expected that students will:</i></p> <ol style="list-style-type: none"> 1. Count by 2s, 5s, 10s and 100s to 1000, using random starting points. [CN] 2. Count by 25s to 1000, using starting points that are multiples of 25. [C, CN] 3. Estimate, then count the number of objects in a set (0 to 1000), and compare the estimate with the actual number. [C, E] 4. Skip count backward by 2s, 5s, 10s and 100s, using starting points that are multiples of 2, 5, 10 and 100 respectively. [C, CN, T] 5. Demonstrate, concretely and pictorially, place value concepts to give meaning to numbers up to 1000. [C, R, V] 6. Recognize, build, compare and order sets that contain 0 to 1000 elements. [PS, R, V] 7. Round numbers to the nearest hundred. [E] 8. Read and write numerals to 1000. [C, CN, V] 9. Read and write number words to 100. [C, CN, V] 10. Use ordinal numbers to 100. [C] 11. Represent and describe numbers to 1000 in a

	<p>PS, R, V]</p> <p>6. Estimate quantities to 20 by using referents. [C, ME, PS, R, V]</p> <p>7. Demonstrate, concretely and pictorially, how a given number can be represented by a variety of equal groups with and without singles. [C, R, V]</p> <p>8. Identify the number, up to 20, that is one more, two more, one less and two less than a given number. [C, CN, ME, R, V]</p> <p>9. Demonstrate an understanding of addition of numbers with answers to 20 and their corresponding subtraction facts, concretely, pictorially and symbolically by:</p> <ul style="list-style-type: none"> • using familiar and mathematical language to describe additive and subtractive actions from their experience • creating and solving problems in context that involve addition and subtraction • modelling addition and subtraction using a variety of concrete and visual representations, and recording the process symbolically. [C, CN, ME, PS, R, V] <p>10. Describe and use mental mathematics strategies (memorization not intended), such as:</p> <ul style="list-style-type: none"> • counting on and counting back • making 10 • doubles • using addition to subtract to determine the basic addition facts to 18 and related subtraction facts. [C, CN, ME, PS, R, V] 	<p>effect of adding zero to or subtracting zero from any number. [C, R]</p> <p>9. Demonstrate an understanding of addition (limited to 1 and 2-digit numerals) with answers to 100 and the corresponding subtraction by:</p> <ul style="list-style-type: none"> • using personal strategies for adding and subtracting with and without the support of manipulatives • creating and solving problems that involve addition and subtraction • explaining that the order in which numbers are added does not affect the sum • explaining that the order in which numbers are subtracted may affect the difference. [C, CN, ME, PS, R, V] <p>10. Apply mental mathematics strategies, such as:</p> <ul style="list-style-type: none"> • using doubles • making 10 • one more, one less • two more, two less • building on a known double • addition for subtraction to determine basic addition facts to 18 and related subtraction facts. [C, CN, ME, R, V] 	<p>variety of ways. [C, PS, R, T, V]</p> <p>12. Recognize and explain if a number is divisible by 2, 5 or 10. [C, CN, R]</p> <p>13. Illustrate and explain fifths and tenths as part of a region or a set. [C, R, V]</p> <p>Strand: Number (Number Operations)</p> <p><i>Students will:</i> • demonstrate an understanding of and proficiency with calculations • decide which arithmetic operation or operations can be used to solve a problem and then solve the problem</p> <p>General Outcome: Apply an arithmetic operation (addition, subtraction, multiplication or division) on whole numbers, and illustrate its use in creating and solving problems.</p> <p>Specific Outcomes</p> <p><i>It is expected that students will:</i></p> <p>14. Use manipulatives, diagrams and symbols, in a problem-solving context, to demonstrate and describe the processes of addition and subtraction to 1000, with and without regrouping. [C, PS, R, V]</p> <p>15. Use manipulatives, diagrams and symbols with maximum products and dividends to 50, to demonstrate and describe the processes of multiplication and division. [C, PS, V]</p> <p>16. Recall addition /subtraction facts to 18 and multiplication facts to 49 (7×7 on a multiplication grid). [E]</p> <p>General Outcome: Use and justify an appropriate calculation strategy or technology to solve problems.</p> <p>Specific Outcomes</p>
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Kindergarten	Grade One	Grade Two	Grade 3
<p>Strand: Patterns and Relations (Patterns)</p> <p>General Outcome: Use patterns to describe the world and solve problems.</p> <p>Specific Outcomes</p> <p><i>It is expected that students will:</i></p> <p>1. Demonstrate an understanding of repeating patterns (two or three elements) by:</p> <ul style="list-style-type: none"> • identifying • reproducing • extending • creating patterns using manipulatives, sounds and actions. [C, CN, PS, V] 	<p>Strand: Patterns and Relations (Patterns)</p> <p>General Outcome: Use patterns to describe the world and solve problems.</p> <p>Specific Outcomes</p> <p><i>It is expected that students will:</i></p> <p>1. Demonstrate an understanding of repeating patterns (two to four elements) by:</p> <ul style="list-style-type: none"> • describing • reproducing • extending • creating patterns using manipulatives, diagrams, sounds and actions. [C, PS, R, V] <p>2. Translate repeating patterns from one representation to another. [C, R, V]</p> <p>General Outcome: Represent algebraic expressions in multiple ways</p> <p>Specific Outcomes</p> <p><i>It is expected that students will:</i></p> <p>3. Describe equality as a balance and inequality as an imbalance, concretely and pictorially (0 to 20). [C, CN, R, V]</p> <p>4. Record equalities using the equal symbol. [C, CN, PS, V]</p>	<p>Strand: Patterns and Relations (Patterns)</p> <p>1. Demonstrate an understanding of repeating patterns (three to five elements) by:</p> <ul style="list-style-type: none"> • describing • extending • comparing • creating patterns using manipulatives, diagrams, sounds and actions. [C, CN, PS, R, V] <p>2. Demonstrate an understanding of increasing patterns by:</p> <ul style="list-style-type: none"> • describing • reproducing • extending • creating patterns using manipulatives, diagrams, sounds and actions (numbers to 100). [C, CN, PS, R, V] <p>Strand: Patterns and Relations (Variables and Equations)</p> <p>Specific Outcomes</p> <p><i>It is expected that students will:</i></p> <p>3. Demonstrate and explain the meaning of equality and inequality by using manipulatives and diagrams (0 to 100). [C, CN, R, V]</p> <p>4. Record equalities and inequalities symbolically using the equal symbol or the not equal symbol. [C, CN, R, V]</p>	<p>Strand: Patterns and Relations (Patterns)</p> <p><i>Students will:</i> • use patterns to describe the world and to solve problems</p> <p>General Outcome: Investigate, establish and communicate rules for numerical and non-numerical patterns, including those found in the home, and use these rules to make predictions.</p> <p>Specific Outcomes</p> <p><i>It is expected that students will:</i></p> <p>1. Sort, concretely and pictorially, using two or more attributes. [CN, PS, V]</p> <p>2. Use objects and concrete models to explain the rule for a pattern, such as those found on addition and multiplication charts. [C, R, V]</p> <p>3. Make predictions based on addition and multiplication patterns. [PS, R]</p>

Kindergarten	Grade One	Grade Two	Grade Three
<p>Strand: Shape and Space (Measurement)</p> <p>General Outcome: Use direct or indirect measurement to solve problems.</p> <p>Specific Outcomes</p> <p><i>It is expected that students will:</i></p> <p>1. Use direct comparison to compare two objects based on a single attribute, such as length (height), mass (weight) and volume (capacity). [C, CN, PS, R, V]</p>	<p>Strand: Shape and Space (Measurement)</p> <p>General Outcome: Use direct or indirect measurement to solve problems.</p> <p>Specific Outcomes</p> <p><i>It is expected that students will:</i></p> <p>1. Demonstrate an understanding of measurement as a process of comparing by:</p> <ul style="list-style-type: none"> • identifying attributes that can be compared • ordering objects • making statements of comparison • filling, covering or matching. [C, CN, PS, R, V] 	<p>Strand: Shape and Space (Measurement)</p> <p>Specific Outcomes</p> <p><i>It is expected that students will:</i></p> <ol style="list-style-type: none"> 1. Relate the number of days to a week and the number of months to a year in a problem-solving context. [C, CN, PS, R] 2. Relate the size of a unit of measure to the number of units (limited to non-standard units) used to measure length and mass (weight). [C, CN, ME, R, V] 3. Compare and order objects by length, height, distance around and mass (weight) using nonstandard units, and make statements of comparison. [C, CN, ME, R, V] 4. Measure length to the nearest non-standard unit by: <ul style="list-style-type: none"> • using multiple copies of a unit • using a single copy of a unit (iteration process). [C, ME, R, V] 5. Demonstrate that changing the orientation of an object does not alter the measurements of its attributes. [C, R, V] 	<p>Strand: Shape and Space (Measurement) <i>Students will:</i> • describe and compare everyday phenomena, using either direct or indirect measurement</p> <p>General Outcome Estimate, measure and compare, using whole numbers and primarily standard units of measure</p> <p>Specific Outcomes</p> <p><i>It is expected that students will:</i></p> <ol style="list-style-type: none"> 1. Select the most appropriate standard unit, including km, to measure length. [E, R, V] 2. Describe the relationships among cm, dm and m. [C] 3. Estimate, measure, record, compare and order objects by length, height and perimeter, using standard units. [E, PS] 4. Select an appropriate nonstandard unit to measure area. [E, V] 5. Estimate, measure, record, compare and order shapes by area, using nonstandard units. [E, PS] 6. Construct a variety of shapes given a specific area in nonstandard units. [PS, V] 7. Select an appropriate object or nonstandard unit to measure capacity or volume of a container. [E, V] 8. Estimate, measure, record, compare and order containers by volume/capacity, using: <ul style="list-style-type: none"> • nonstandard units • litres. [E, PS] 9. Estimate, measure, record, compare and order the mass (weight) of objects, using standard units (g, kg). [E, PS] 10. Construct objects to equal a given mass (weight). [PS] 11. Estimate and measure the passage of time, using standard units; seconds, minutes, hours, days, weeks, months, years. [E] 12. Read and write the days of the week and months of the year. [C] 13. Relate days to years. [CN]

			<p>14. Read digital clocks and write time to the nearest minute, using 12-hour notation. [C]</p> <p>15. Estimate, read and record temperature to the nearest degree C. [E]</p> <p>16. Relate temperature to everyday situations. [CN]</p> <p>17. Create and recognize that a given value of money can be represented in many different ways. [PS, R]</p> <p>18. Estimate, count and record collections of coins and bills up to \$10. [E]</p> <p>19. Make purchases and change up to \$10. [PS]</p> <p>20. Read and write both money notations (89¢ and \$0.89). [C]</p> <p>21. Recognize the value of bills up to \$100. [C]</p>
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Kindergarten	Grade One	Grade Two	Grade Three
<p>Strand: Shape and Space (3-D Objects and 2-D Shapes)</p> <p>General Outcome: Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.</p> <p>Specific Outcomes <i>It is expected that students will:</i></p> <p>2. Sort 3-D objects using a single attribute. [C, CN, PS, R, V]</p> <p>3. Build and describe 3-D objects. [CN, PS, V]</p>	<p>Strand: Shape and Space (3-D Objects and 2-D Shapes)</p> <p>General Outcome: Describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them.</p> <p>Specific Outcomes <i>It is expected that students will:</i></p> <p>2. Sort 3-D objects and 2-D shapes using one attribute, and explain the sorting rule. [C, CN, R, V]</p> <p>3. Replicate composite 2-D shapes and 3-D objects. [CN, PS, V]</p> <p>4. Compare 2-D shapes to parts of 3-D objects in the environment. [C, CN, V]</p>	<p>Strand: Shape and Space (3-D Objects and 2-D Shapes)</p> <p>Specific Outcomes <i>It is expected that students will:</i></p> <p>6. Sort 2-D shapes and 3-D objects using two attributes, and explain the sorting rule. [C, CN, R, V]</p> <p>7. Describe, compare and construct 3-D objects, including: • cubes • spheres • cones • cylinders • pyramids. [C, CN, R, V]</p> <p>8. Describe, compare and construct 2-D shapes, including: • triangles • squares • rectangles • circles. [C, CN, R, V]</p> <p>9. Identify 2-D shapes as parts of 3-D objects in the environment. [C, CN, R, V]</p>	<p>Strand: Shape and Space (3-D Objects and 2-D Shapes) <i>Students will:</i></p> <ul style="list-style-type: none"> describe the characteristics of 3-D objects and 2-D shapes, and analyze the relationships among them. <p>General Outcome Describe, classify, construct and relate 3-D objects and 2-D shapes.</p> <p>22. Identify and count faces, vertices and edges of 3-D objects. [E]</p> <p>23. Identify and name faces of a 3-D object with appropriate 2-D names. [C, V]</p> <p>24. Describe and name pyramids and prisms by the shape of the base. [C]</p> <p>25. Demonstrate that a rectangular solid has more than one net. [PS, V]</p> <p>26. Compare and contrast two 3-D objects. [C, CN]</p> <p>27. Recognize congruent (identical) 3-D objects and 2-D shapes. [CN]</p> <p>28. Explore, concretely, the concepts of perpendicular, parallel and intersecting lines on 3-D objects. [R, V]</p> <p>Strand: Shape and Space (Transformations) <i>Students will:</i></p> <ul style="list-style-type: none"> perform, analyze and create transformations. <p>General Outcome Use numbers and direction words to describe the relative positions of objects in one dimension, using everyday contexts.</p> <p>29. Communicate and apply terms of direction, such as north or south and east or west, and relate to maps. [C, CN, T]</p> <p>30. Graph whole number points on a horizontal number line or a vertical number line. [CN, V]</p> <p>31. Trace a path, using oral or written instructions. [C, PS]</p>

Kindergarten	Grade One	Grade Two	Grade Three
		<p>Strand: Statistics and Probability (Data Analysis)</p> <p>Specific Outcomes <i>It is expected that students will:</i></p> <ol style="list-style-type: none"> 1. Gather and record data about self and others to answer questions. [C, CN, PS, V] 2. Construct and interpret concrete graphs and pictographs to solve problems. [C, CN, PS, R, V] 	<p>Strand: Statistics and Probability (Data Analysis) <i>Students will:</i> · collect, display and analyze data to make predictions about a population.</p> <p>General Outcome Collect first- and second-hand data, display the results in more than one way, and interpret the data to make predictions.</p> <ol style="list-style-type: none"> 1. Collect data, using measuring devices and printed/technology resources. [PS, T] 2. Display data, using rank ordering. [C,V] 3. Display the same data in more than one way. [PS] 4. Make predictions and inferences when solving similar problems. [CN, E, PS] 5. Obtain new information by performing arithmetic operations on the data. [E, PS, T] <p>General Outcome Use simple probability experiments, designed by others, to explain outcomes.</p> <ol style="list-style-type: none"> 6. Describe the likelihood of an outcome, using such terms as more likely, less likely, chance. [C, R] 7. Conduct a probability experiment, choose an appropriate recording method, and draw conclusions from the results. [C, E, PS]