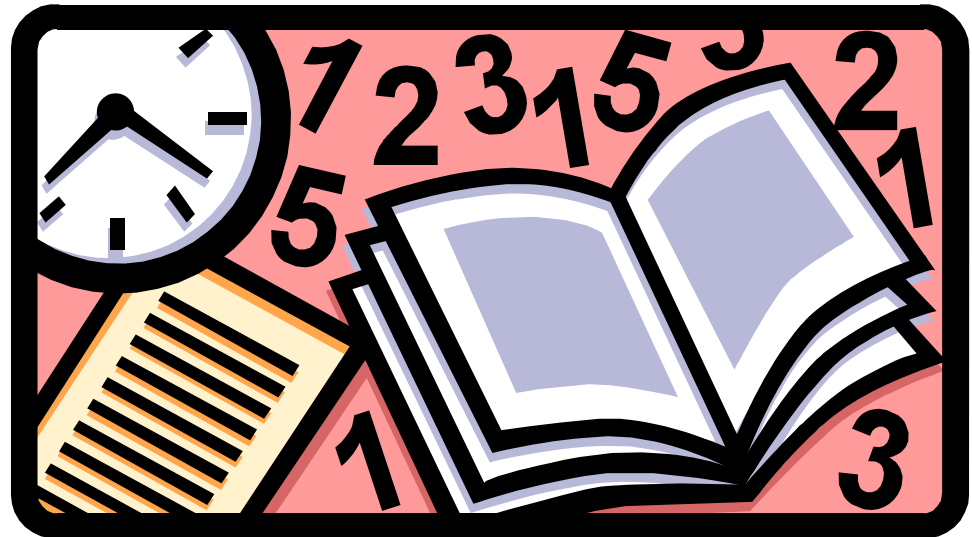
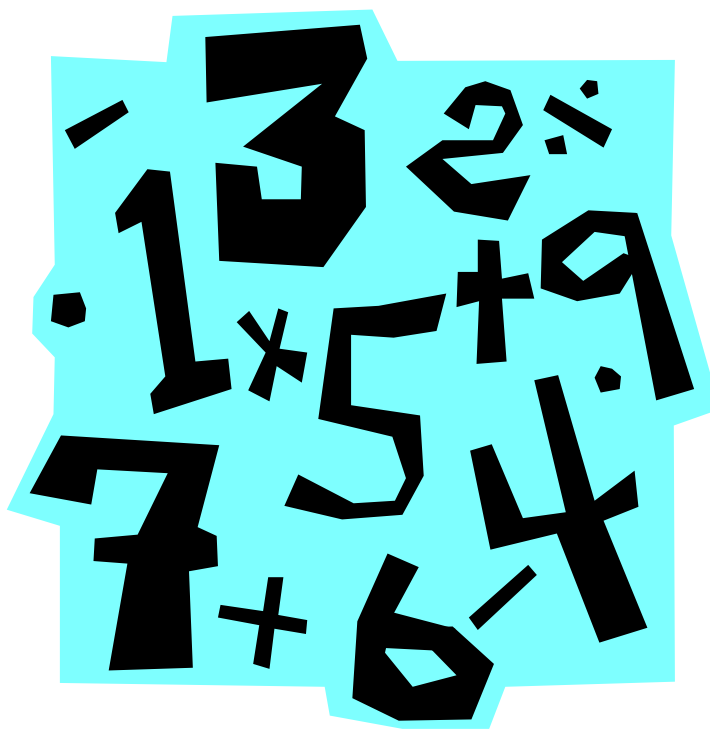


Grade 4 Mathematics

Correlation
between
1996 Curriculum
and
2008 Curriculum



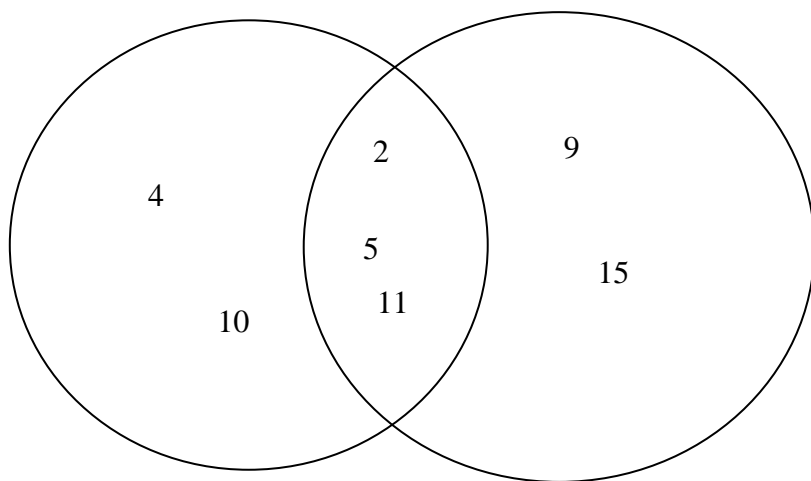


NUMBER

1996 Curriculum	2008 Curriculum
<p>Uses skip counting (forward and backward) to support understanding of multiplication and division; estimates, then counts the number of objects in a set (0-1000), comparing the estimate to the actual number; and uses ordinal numbers to 1000 (N-I.1.4)</p>	<p>4.N.2. Compare and order numbers to 10 000. [C, CN]</p> <p>4.N.5. Describe and apply mental mathematics strategies such as</p> <ul style="list-style-type: none"> • skip counting from a known fact • using doubling or halving • using doubling and adding or subtracting one more group • using patterns in the 9s facts • using repeated doubling <p>to develop recall of basic multiplication facts to 9×9 and related division facts. [C, CN, ME, PS, R]</p>
<p>Reads and writes numerals to 10 000 and number words to 1000 (N-I.2.4)</p>	<p>4.N.1. Represent and describe whole numbers to 10 000, pictorially and symbolically. [C, CN, V]</p>
<p>Represents and describes numbers to 10 000 in a variety of ways; demonstrates concretely, pictorially, and symbolically, place value concepts to give meaning to numbers up to 10 000; rounds numbers to the nearest thousand; and compares and orders whole numbers up to 10 000 (N-I.4.4)</p>	<p>4.N.1. Represent and describe whole numbers to 10 000, pictorially and symbolically. [C, CN, V]</p> <p>4.N.2. Compare and order numbers to 10 000. [C, CN]</p>
<p>Sorts numbers into categories by one or more attributes (N-I.5.4)</p>	
<p>Illustrates and explains hundredths as part of a region or set (N-II.1.4)</p>	<p>4.N.9. Describe and represent decimals (tenths and hundredths) concretely, pictorially, and symbolically. [C, CN, R, V]</p>
<p>Connects proper fractions to decimals, (tenths and hundredths) using manipulatives, diagrams, and symbols (N-II.2.4)</p>	<p>4.N.10. Relate decimals to fractions (to hundredths). [CN, R, V]</p>

1996 Curriculum	2008 Curriculum
<p>Uses manipulatives, diagrams, and symbols in problem-solving contexts, to demonstrate and describe multiple strategies for determining sums and differences to 10 000, and uses manipulatives and diagrams to add and subtract decimals (tenths and hundredths) (N-V.1.4)</p>	<p>4.N.3. Demonstrate an understanding of addition of numbers with answers to 10 000 and their corresponding subtractions (limited to 3- and 4-digit numerals) by</p> <ul style="list-style-type: none"> • using personal strategies for adding and subtracting • estimating sums and differences • solving problems involving addition and subtraction. <p>[C, CN, ME, PS, R]</p> <p>4.N.11. Demonstrate an understanding of addition and subtraction of decimals (limited to hundredths) by</p> <ul style="list-style-type: none"> • using compatible numbers • estimating sums and differences • using mental math strategies to solve problems. <p>[C, ME, PS, R, V]</p>
<p>Uses manipulatives, diagrams, and symbols to demonstrate and describe the processes of multiplication and division in problem-solving contexts (3 digit by 1 digit for multiplication and 2 digit by 1 digit for division); Recalls multiplication and division facts to 81 (9x9) on a multiplication grid) (N-V.2.4)</p>	<p>4.N.5. Describe and apply mental mathematics strategies, such as</p> <ul style="list-style-type: none"> • skip counting from a known fact • using doubling or halving • using doubling and adding one more group • using patterns in the 9s facts • using repeated doubling <p>to develop recall of basic multiplication facts to 9x9 and related division facts.</p> <p>[C, CN, ME, PS, R]</p> <p>4.N.6. Demonstrate an understanding of multiplication (2- or 3-digit numerals by 1-digit numerals)-to solve problems by</p> <ul style="list-style-type: none"> • using personal strategies for multiplication with and without concrete materials • using arrays to represent multiplication • connecting concrete representations to symbolic representations • estimating products <p>[C, CN, ME, PS, R, V]</p>

1996 Curriculum	2008 Curriculum
<p>Justifies the method used to calculate products and quotients, choosing from estimation strategies, mental mathematics strategies, manipulatives, algorithms, and calculator; and uses estimation and inverse operations or calculators to verify solutions for problems involving multiplication and division (N-VI.1.4)</p>	<p>4.N.6. Demonstrate an understanding of multiplication (2- or 3-digit numerals by 1-digit numerals) to solve problems by</p> <ul style="list-style-type: none"> • using personal strategies for multiplication with and without concrete materials • using arrays to represent multiplication • connecting concrete representations to symbolic representations • estimating products <p>[C, CN, ME, PS, R, V]</p> <p>4.N.7. Demonstrate an understanding of division (1-digit divisor and up to 2-digit dividend) to solve problems by</p> <ul style="list-style-type: none"> • using personal strategies for dividing with and without concrete materials • estimating quotients • relating division to multiplication. <p>[C, CN, ME, PS, R, V]</p>
	<p>4.N.4. Explain the properties of 0 and 1 for multiplication and the property of 1 for division. [C, CN, R]</p>
	<p>4.N.8. Demonstrate an understanding of fractions less than or equal to one by using concrete and pictorial representations to</p> <ul style="list-style-type: none"> • name and record fractions for the parts of a whole or a set • compare and order fractions • model and explain that for different wholes, two identical fractions may not represent the same quantity • provide examples of where fractions are used <p>[C, CN, PS, R, V]</p>



Patterns and Relations

1996 Curriculum	2008 Curriculum
<p>Identifies and explains mathematical patterns and relationships using:</p> <ul style="list-style-type: none"> ▪ objects/models ▪ charts/grids ▪ Venn/Carroll/tree diagrams ▪ graphs ▪ technology <p>(PR-II.2.4)</p>	<p>4.PR 1. Identify and describe patterns found in tables and charts, including a multiplication chart. [C, CN, PS, V]</p> <p>4.PR 2. Reproduce a pattern shown in a table or chart using concrete materials. [C, CN, V]</p> <p>4.PR 3. Represent and describe patterns and relationships using charts and tables to solve problems. [C, CN, PS, R, V]</p> <p>4.PR 4. Identify and explain mathematical relationships using charts and diagrams to solve problems. [CN, PS, R, V]</p>
<p>Makes and justifies predictions, using numerical and non-numerical patterns (PR-III.1.4)</p>	
	<p>4.PR 5. Express a problem as an equation in which a symbol is used to represent an unknown number. [CN, PS, R]</p>
	<p>4.PR.6. Solve one-step equations involving a symbol to represent an unknown number. [C, CN, PS, R, V]</p>



Shape and Space

1996 Curriculum	2008 Curriculum
Selects the most appropriate standard unit, including mm, and estimates, measures, records, compares, and order objects by length, height, perimeter, and circumference (SS-I.1.4)	
Constructs items of specific lengths, including mm (SS-I.2.4)	
Describes the relationships among mm, dm, dm, m, and km, and relates the size of a unit to the number of units used to measure length (SS-I.3.4)	
Selects the most appropriate standard unit, and estimates, measures, records, compares, and orders shapes by area, using cm^2 and m^2 (SS-II.1.4)	<p>4.SS.3. Demonstrate an understanding of area of regular and irregular 2-D shapes by</p> <ul style="list-style-type: none"> • recognizing that area is measured in square units • selecting and justifying referents for the units cm^2 or m^2 • estimating area by using referents for cm^2 or m^2 • determining and recording area (cm^2 or m^2) • constructing different rectangles for a given area (cm^2 or m^2) in order to demonstrate that many rectangles may have the same area. <p>[C, CN, ME, PS, R, V]</p>
Constructs a number of shapes given a specific area (cm^2) (SS-II.2.4)	<p>4.SS.3. Demonstrate an understanding of area of regular and irregular 2-D shapes by</p> <ul style="list-style-type: none"> • recognizing that area is measured in square units • selecting and justifying referents for the units cm^2 or m^2 • estimating area by using referents for cm^2 or m^2 • determining and recording area (cm^2 or m^2) • constructing different rectangles for a given area (cm^2 or m^2) in order to demonstrate that many rectangles may have the same area. <p>[C, CN, ME, PS, R, V]</p>

1996 Curriculum	2008 Curriculum
Relates the size of a unit and the number of units needed to measure area (SS-II.3.4)	4.SS.3. Demonstrate an understanding of area of regular and irregular 2-D shapes by <ul style="list-style-type: none"> • recognizing that area is measured in square units • selecting and justifying referents for the units cm^2 or m^2 • estimating area by using referents for cm^2 or m^2 • determining and recording area (cm^2 or m^2) • constructing different rectangles for a given area (cm^2 or m^2) in order to demonstrate that many rectangles may have the same area. [C, CN, ME, PS, R, V]
Estimates, measures, records, compares, and orders containers, by capacity, using mL and L (SS-III.1.4)	
Relates the size of the unit to the number of units needed to measure volume and capacity (SS-III.3.4)	
Solves problems involving mass/weight using g or kg (SS-IV.1.4)	
Relates g and kg, and the size of a unit to the number of units used to measure the mass (SS-IV.3.4)	
Reads and writes time using am and pm, and reads an analogue clock to the nearest minute (SS-VI.1.4)	4.SS.1. Read and record time using digital and analog clocks, including 24-hour clocks. [C, CN, V]
Relates years to decades, decades to centuries and centuries to millenniums (SS-VI.3.4)	
Estimates, counts, and records collections of coins and bills up to \$50 (SS-VII.1.4)	
Makes purchases and change up to \$50 (SS-VII.2.4)	
Compares and contrasts <ul style="list-style-type: none"> ▪ pyramids ▪ prisms ▪ pyramids and prisms (SS-IX.1.4)	4.SS.5. Describe and construct rectangular and triangular prisms. [C, CN, R, V]
Identifies and sorts specific quadrilaterals, including squares, rectangles, parallelograms, and trapezoids (SS-X.1.4)	
Designs and constructs nets for pyramids and prisms (SS-X.2.4)	

1996 Curriculum	2008 Curriculum
Relates nets to 3-D objects (SS-X.3.4)	
Recognises from everyday experience, and identifies: point, line, angle, parallel lines, intersecting lines, perpendicular lines, vertical lines, horizontal lines (SS-XI.1.4)	
Visualises and describes angles in a variety of orientations according to whether they are a right angle, significantly less than a right angle, or significantly greater than a right angle (SS-XI.2.4)	
Communicates and applies terms of direction such as north, south, east, and west, relates them to maps and grids, and places an object on a grid, using columns and rows (SS-XII.1.4)	
Traces a path, using oral or written instructions, and writes instructions for a given path (SS-XII.2.4)	
Creates and verifies symmetrical 2-D shapes by drawing lines of symmetry (SS-XII.3.4)	4.SS.6. Demonstrate an understanding of line symmetry by <ul style="list-style-type: none"> • identifying symmetrical 2-D shapes • creating symmetrical 2-D shapes • drawing one or more lines of symmetry in a 2-D shape [C, CN, V]
	4.SS.2. Read and record calendar dates in a variety of formats. [C, V]
	4.SS.4. Solve problems involving 2-D shapes and 3-D objects. [CN, PS, V]

Statistics and Probability



1996 Curriculum	2008 Curriculum
Selects a sample or population, and organises the collection of data (SP-I.2.4)	
Discusses the process by which the data was collected (SP-II.2.4)	
Manipulates the data to create intervals for both tables and graphs (SP-III.1.4)	4.SP.1. Demonstrate an understanding of many-to-one correspondence. [C, R, T, V]
Constructs a bar graph and a pictograph, using many to one correspondence, and justifies the choice of intervals and correspondence used (SP-III.2.4)	4.SP.2. Construct and interpret pictographs and bar graphs involving many-to-one correspondence to draw conclusions. [C, PS, R, V]
Identifies an outcome as possible, impossible, certain, uncertain, and compares outcomes as equally likely, more likely, less likely (SP-V.1.4)	
Designs and conducts experiments to answer one's own questions (SP-V.2.4)	