

# CAT-4 Match to the Ontario Curriculum

Level 13 to Grade 3

Reading Ontario Curriculum, 2006 Specific Expectations	Canadian Achievement Tests, Fourth Edition (CAT-4)			
	Multiple-Choice Tests			Constructed-Response Tasks
	Reading	Word Analysis	Vocabulary	Response to Text
<b>1. Reading for Meaning</b>				
1.1 read a variety of literary, graphic and informational texts	1			
1.2 identify a variety of purposes for reading and choose reading materials appropriate for those purposes				
1.3 identify a variety of reading comprehension strategies and use them appropriately before, during, and after reading to understand texts	17, 30, 31, 33, 35, 40, 41, 44			
1.4 demonstrate understanding of a variety of texts by identifying important ideas and some supporting details	2, 7, 11, 20, 21, 26, 42			1, 4
1.5 make inferences about texts using stated and implied ideas from the texts as evidence	4, 8, 9, 10, 12, 18, 19, 27, 28, 43			3, 5
1.6 extend understanding of texts by connecting the ideas in them to their own knowledge and experience, to other familiar texts, and to the world around them	3, 34, 39			2, 4, 5, 6
1.7 identify specific elements of texts and explain how they contribute to the meaning of the texts	13, 22, 23, 36			
1.8 express personal opinions about ideas presented in texts	6, 16			2, 6
1.9 identify the point of view presented in a text and suggest some possible alternative perspectives	37			3, 5
<b>2. Understanding Form and Style</b>				
2.1 identify and describe the characteristics of a variety of text forms, with a focus on literary texts such as a fable or adventure story, graphic texts such as a comic book, and informational texts such as a nature magazine	24, 35, 38, 47, 48			
2.2 recognize a few organizational patterns in texts of different types, and explain how the patterns help readers understand the texts				
2.3 identify a variety of text features and explain how they help readers understand texts	22, 23, 25, 29, 32, 45, 46			1
2.4 identify some elements of style, including voice, word choice, and different types of sentences, and explain how they help readers understand texts	14, 15			

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	Reading	Word Analysis	Vocabulary	Response to Text
<b>3. Reading with Fluency</b>				
<b>3.1</b> automatically read and understand most high-frequency words, many regularly used words, and words of personal interest or significance, in a variety of reading contexts			1, 2, 10, 12, 14, 16, 18, 22, 23, 24	
<b>3.2</b> predict the meaning of and rapidly solve unfamiliar words using different types of cues, including: <ul style="list-style-type: none"> <li>• semantic (meaning) cues</li> <li>• syntactic (language structure) cues</li> <li>• graphophonic (phonological and graphic) cues</li> </ul>	5	1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12, 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24, 25, 26, 27, 28, 29, 30	3, 4, 5, 6, 7, 8, 9, 11, 13, 15, 17, 19, 20, 21, 25, 26, 27, 28, 29, 30, 31, 32, 33	
<b>3.3</b> read appropriate texts at a sufficient rate and with sufficient expression to convey the sense of the text readily to the reader and an audience				

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Level 13 to Grade 3

<b>Writing</b> Ontario Curriculum, 2006 Specific Expectations	<i>Canadian Achievement Tests, Fourth Edition (CAT-4)</i>		
	Multiple-Choice Tests		Constructed-Response Tasks
	Writing Conventions	Spelling	Writing
<b>1. Developing and Organizing Content</b>			
<b>1.1</b> identify the topic, purpose, audience, and form for writing (e.g., an original fable, modelled on the structures and conventions of fables read, to entertain the class; a scientific explanation demonstrating how some common levers make work easier, for a peer group; a labelled map with a legend identifying the key components of an early settlement in Upper Canada, to accompany a small-group project). Teacher prompts: “What is your writing about?” “Why are you writing?” “Whom are you writing for?”			
<b>1.2</b> generate ideas about a potential topic, using a variety of strategies and resources (e.g., formulate and ask questions to identify personal experiences, prior knowledge, and information needs and to guide searches for information; brainstorm and record ideas on the topic)			
<b>1.3</b> gather information to support ideas for writing in a variety of ways and/or from a variety of sources (e.g., from discussions with family and friends; from teacher read-alouds, mentor texts, shared-, guided-, and independent-reading texts, and media texts)			
<b>1.4</b> sort ideas and information for their writing in a variety of ways (e.g., by using graphs, charts, webs, outlines, or lists)			1, 2, 3, 4, 5
<b>1.5</b> identify and order main ideas and supporting details into units that could be used to develop a short, simple paragraph, using graphic organizers (e.g., a story grammar, a T-chart, a paragraph frame) and organizational patterns (e.g., comparison, chronological order)	25, 26, 32, 33, 34, 36		1, 2, 3, 4, 5
<b>1.6</b> determine whether the ideas and information they have gathered are relevant and adequate for the purpose, and gather new material if necessary (e.g., discuss the content with a peer or reading buddy; review material using a story map or web)	27, 28, 29, 30, 32		1, 2, 3, 4
<b>2. Using Knowledge of Form and Style</b>			
<b>2.1</b> write short texts using a variety of forms (e.g., a personal or factual recount of events or experiences that includes photographs or drawings and captions; a report comparing transportation in urban and rural communities; a paragraph explaining how physical geography and natural resources affected the development of early settler communities; a letter from the point of view of a settler, describing how First Nations people have taught the settlers to adapt to their new environment; a familiar story told from a new perspective; a patterned poem using rhyme or repetition)			1, 2, 3, 4

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Level 13 to Grade 3

<b>Writing</b> Ontario Curriculum, 2006 Specific Expectations	<i>Canadian Achievement Tests, Fourth Edition (CAT-4)</i>		
	Multiple-Choice Tests		Constructed-Response Tasks
	Writing Conventions	Spelling	Writing
<b>2.2</b> establish a personal voice in their writing, with a focus on using concrete words and images to convey their attitude or feeling towards the subject or audience (e.g., words used literally or figuratively to communicate intensity of feeling: a shiver of excitement; hot anger)			2, 4, 6
<b>2.3</b> use words and phrases that will help convey their meaning as specifically as possible (e.g., comparative adjectives such as smaller, smallest; adverbs)	16, 17, 18, 19		
<b>2.4</b> vary sentence structures and maintain continuity by using joining words (e.g., and, or) to combine simple sentences and using words that indicate time and sequence to link sentences (e.g., first, then, next, before, finally, later)	21		1, 2, 3, 4, 5
<b>2.5</b> identify their point of view and other possible points of view on the topic, and determine if their information supports their own view. Teacher prompt: "What supporting details have you included for your point of view? Would this point of view be accepted by others? Why, or why not?"			2, 4
<b>2.6</b> identify elements of their writing that need improvement, using feedback from the teacher and peers, with a focus on specific features (e.g., a strong opening or "lead"; the clarity of the main idea). Teacher prompts: "Can you think of another way you might get the attention of your audience at the beginning?" "Have you provided enough detail to support your main idea?"			
<b>2.7</b> make revisions to improve the content, clarity, and interest of their written work, using several types of strategies (e.g., reordering sentences, removing repetition or unnecessary information, adding material needed to clarify meaning, adding or substituting words to increase interest, adding linking words or phrases to highlight connections between ideas, using gender-neutral language as appropriate). Teacher prompts: "What similar words or phrases could you use instead of...?" "What time order words might help clarify the sequence of events in your story?"			
<b>2.8</b> produce revised, draft pieces of writing to meet identified criteria based on the expectations related to content, organization, style, and use of conventions			1, 2, 3, 4, 5
<b>3. Applying Knowledge of Language Conventions and Presenting Written Work Effectively</b>			
<b>3.1</b> spell familiar words correctly (e.g., words from their oral vocabulary, anchor charts, the class word wall, and shared-, guided-, and independent-reading texts)	7		1, 2, 3, 4, 5

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Level 13 to Grade 3

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	Multiple-Choice Tests		Constructed-Response Tasks
	Writing Conventions	Spelling	Writing
<b>3.2</b> spell unfamiliar words using a variety of strategies that involve understanding sound-symbol relationships, word structures, word meanings, and generalizations about spelling (e.g., pronounce a word as it is spelled: Wed-nes-day; make analogies to rhyming words; apply knowledge of short-vowel and long-vowel patterns; cluster words by visual similarities; follow rules for changing base words when adding common endings: hope/hoping, slam/slammed; use memory aids such as visualization)			
<b>3.3</b> confirm spellings and word meanings or word choice using several different types of resources (e.g., locate words in an alphabetized personal word book or dictionary using first, second, third, and fourth letters, entry words, or pronunciation; use a variety of dictionaries, such as a rhyming dictionary or a dictionary of synonyms and antonyms; use a thesaurus to find alternative words)			
<b>3.4</b> use punctuation to help communicate their intended meaning, with a focus on the use of: quotation marks to indicate direct speech; commas to mark grammatical boundaries within sentences; capital letters and final punctuation to mark the beginning and end of sentences	2, 4, 6, 8, 9, 11, 12		1, 2, 3, 4, 5
<b>3.5</b> use parts of speech appropriately to communicate their meaning clearly, with a focus on the use of: proper nouns for titles (e.g., of businesses, teams); the possessive pronouns my, mine, your, yours, his, her, hers, its; action verbs in the present and simple past tenses; adjectives and adverbs; question words (e.g., when, where, why, how)	1, 3, 5, 10, 13, 14, 15, 20, 23, 24		1, 2, 3, 4, 5
<b>3.6</b> proofread and correct their writing using guidelines developed with peers and the teacher (e.g., a checklist modified in a teacher-student conference to support individual writing strengths and indicate next steps; a posted class writing guideline)			
<b>3.7</b> use some appropriate elements of effective presentation in the finished product, including print, script, different fonts, graphics, and layout (e.g., use legible printing and some cursive writing; use different font sizes and colours on a poster to attract attention; use proper paragraph form including spacing and margins; supply captions for photographs)			
<b>3.8</b> produce pieces of published work to meet identified criteria based on the expectations related to content, organization, style, use of conventions, and use of presentation strategies			

# CAT-4 Match to the Ontario Curriculum

Level 13 to Grade 3

<b>Mathematics</b> Ontario Curriculum, 2005 Number Sense and Numeration	Canadian Achievement Tests, Fourth Edition (CAT-4)		
	Multiple-Choice Tests		Constructed-Response Tasks
	Mathematics	Computation and Estimation	Math Processes
<i>Quantity Relationships</i>			
By the end of Grade 3, students will: <ul style="list-style-type: none"> <li>represent, compare, and order whole numbers to 1000, using a variety of tools (e.g., base ten materials or drawings of them, number lines with increments of 100 or other appropriate amounts);</li> </ul>	1, 4, 8, 9, 20		
<ul style="list-style-type: none"> <li>read and print in words whole numbers to one hundred, using meaningful contexts (e.g., books, speed limit signs);</li> </ul>			
<ul style="list-style-type: none"> <li>identify and represent the value of a digit in a number according to its position in the number (e.g., use base ten materials to show that the 3 in 324 represents 3 hundreds);</li> </ul>	11		
<ul style="list-style-type: none"> <li>compose and decompose three-digit numbers into hundreds, tens, and ones in a variety of ways, using concrete materials (e.g., use base ten materials to decompose 327 into 3 hundreds, 2 tens, and 7 ones, or into 2 hundreds, 12 tens, and 7 ones);</li> </ul>			
<ul style="list-style-type: none"> <li>round two-digit numbers to the nearest ten, in problems arising from real-life situations;</li> </ul>		29	
<ul style="list-style-type: none"> <li>represent and explain, using concrete materials, the relationship among the numbers 1, 10, 100, and 1000, (e.g., use base ten materials to represent the relationship between a decade and a century, or a century and a millennium);</li> </ul>			
<ul style="list-style-type: none"> <li>divide whole objects and sets of objects into equal parts, and identify the parts using fractional names (e.g., one half; three thirds; two fourths or two quarters), without using numbers in standard fractional notation;</li> </ul>	25, 48		
<ul style="list-style-type: none"> <li>represent and describe the relationships between coins and bills up to \$10 (e.g., "There are eight quarters in a toonie and ten dimes in a loonie.");</li> </ul>			
<ul style="list-style-type: none"> <li>estimate, count, and represent (using the \$ symbol) the value of a collection of coins and bills with a maximum value of \$10;</li> </ul>	3, 15, 37	33, 36	
<ul style="list-style-type: none"> <li>solve problems that arise from real-life situations and that relate to the magnitude of whole numbers up to 1000</li> </ul>	40		
<i>Specific Expectations Counting</i>			
By the end of Grade 3, students will: <ul style="list-style-type: none"> <li>count forward by 1's, 2's, 5's, 10's, and 100's to 1000 from various starting points, and by 25's to 1000 starting from multiples of 25, using a variety of tools and strategies (e.g., skip count with and without the aid of a calculator; skip count by 10's using dimes);</li> </ul>			
<ul style="list-style-type: none"> <li>count backwards by 2's, 5's, and 10's from 100 using multiples of 2, 5, and 10 as starting points, and count backwards by 100's from 1000 and any number less than 1000, using a variety of tools (e.g., number lines, calculators, coins) and strategies.</li> </ul>			

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Level 13 to Grade 3

<b>Mathematics</b> Ontario Curriculum, 2005 Number Sense and Numeration	Canadian Achievement Tests, Fourth Edition (CAT-4)		
	Multiple-Choice Tests		Constructed-Response Tasks
	Mathematics	Computation and Estimation	Math Processes
<i>Operational Sense</i>			
By the end of Grade 3, students will: <ul style="list-style-type: none"> <li>solve problems involving the addition and subtraction of two-digit numbers, using a variety of mental strategies (e.g., to add <math>37 + 26</math>, add the tens, add the ones, then combine the tens and ones, like this: <math>30 + 20 = 50</math>, <math>7 + 6 = 13</math>, <math>50 + 13 = 63</math>);</li> </ul>	34	31, 32	
<ul style="list-style-type: none"> <li>add and subtract three-digit numbers, using concrete materials, student generated algorithms, and standard algorithms;</li> </ul>		1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 11, 12 13, 14, 15, 16, 17, 18, 19, 20, 21, 22, 23, 24	
<ul style="list-style-type: none"> <li>use estimation when solving problems involving addition and subtraction, to help judge the reasonableness of a solution;</li> </ul>		30	
<ul style="list-style-type: none"> <li>add and subtract money amounts, using a variety of tools (e.g., currency manipulatives, drawings), to make simulated purchases and change for amounts up to \$10 (<b>Sample problem:</b> You spent 5 dollars and 75 cents on one item and 10 cents on another item. How much did you spend in total?);</li> </ul>	37	33, 36	
<ul style="list-style-type: none"> <li>relate multiplication of one-digit numbers and division by one-digit divisors to real life situations, using a variety of tools and strategies (e.g., place objects in equal groups, use arrays, write repeated addition or subtraction sentences) (<b>Sample problem:</b> Give a real-life example of when you might need to know that 3 groups of 2 is <math>3 \times 2</math>.);</li> </ul>	28	34, 35	
<ul style="list-style-type: none"> <li>multiply to <math>7 \times 7</math> and divide to <math>49 \div 7</math>, using a variety of mental strategies (e.g., doubles, doubles plus another set, skip counting).</li> </ul>	29	25, 26, 27, 28	

# CAT-4 Match to the Ontario Curriculum

Level 13 to Grade 3

<b>Mathematics</b> Ontario Curriculum, 2005 Measurement	<i>Canadian Achievement Tests, Fourth Edition (CAT-4)</i>		
	Multiple-Choice Tests		Constructed-Response Tasks
	Mathematics	Computation and Estimation	Math Processes
<i>Attributes, Units, and Measurement Sense</i>			
By the end of Grade 3, students will: <ul style="list-style-type: none"> <li>estimate, measure, and record length, height, and distance, using standard units (i.e., centimetre, metre, kilometre) (<b>Sample problem:</b> While walking with your class, stop when you think you have travelled one kilometre.);</li> </ul>			
<ul style="list-style-type: none"> <li>draw items using a ruler, given specific lengths in centimetres (Sample problem: Draw a pencil that is 5 cm long);</li> </ul>			
<ul style="list-style-type: none"> <li>read time using analogue clocks, to the nearest five minutes, and using digital clocks (e.g., 1:23 means twenty-three minutes after one o'clock), and represent time in 12-hour notation;</li> </ul>			
<ul style="list-style-type: none"> <li>estimate, read (i.e., using a thermometer), and record positive temperatures to the nearest degree Celsius (i.e., using a number line; using appropriate notation)</li> </ul>			
<ul style="list-style-type: none"> <li>identify benchmarks for freezing, cold, cool, warm, hot, and boiling temperatures as they relate to water and for cold, cool, warm, and hot temperatures as they relate to air (e.g., water freezes at 0°C; the air temperature on a warm day is about 20°C, but water at 20°C feels cool);</li> </ul>			
<ul style="list-style-type: none"> <li>estimate, measure, and record the perimeter of two-dimensional shapes, through investigation using standard units (<b>Sample problem:</b> Estimate, measure, and record the perimeter of your notebook.);</li> </ul>			
<ul style="list-style-type: none"> <li>estimate, measure (i.e., using centimetre grid paper, arrays), and record area (e.g., if a row of 10 connecting cubes is approximately the width of a book, skip counting down the cover of the book with the row of cubes [i.e., counting 10, 20, 30, ...] is one way to determine the area of the book cover);</li> </ul>			
<ul style="list-style-type: none"> <li>choose benchmarks for a kilogram and a litre to help them perform measurement tasks;</li> </ul>			
<ul style="list-style-type: none"> <li>estimate, measure, and record the mass of objects (e.g., can of apple juice, bag of oranges, bag of sand), using the standard unit of the kilogram or parts of a kilogram (e.g., half, quarter);</li> </ul>			
<ul style="list-style-type: none"> <li>estimate, measure, and record the capacity of containers (e.g., juice can, milk bag), using the standard unit of the litre or parts of a litre (e.g., half, quarter).</li> </ul>			
<i>Measurement Relationships</i>			
By the end of Grade 3, students will: <ul style="list-style-type: none"> <li>compare standard units of length (i.e., centimetre, metre, kilometre) (e.g., centimetres are smaller than metres), and select and justify the most appropriate standard unit to measure length;</li> </ul>	42		

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Level 13 to Grade 3

<b>Mathematics</b> Ontario Curriculum, 2005 Measurement	Canadian Achievement Tests, Fourth Edition (CAT-4)		
	Multiple-Choice Tests		Constructed-Response Tasks
	Mathematics	Computation and Estimation	Math Processes
<ul style="list-style-type: none"> <li>compare and order objects on the basis of linear measurements in centimetres and/or metres (e.g., compare a 3 cm object with a 5 cm object; compare a 50 cm object with a 1 m object) in problem-solving contexts;</li> </ul>			
<ul style="list-style-type: none"> <li>compare and order objects on the basis of linear measurements in centimetres and/or metres (e.g., compare a 3 cm object with a 5 cm object; compare a 50 cm object with a 1 m object) in problem-solving contexts;</li> </ul>	32		
<ul style="list-style-type: none"> <li>compare and order various shapes by area, using congruent shapes (e.g., from a set of pattern blocks or Power Polygons) and grid paper for measuring (<b>Sample problem:</b> Does the order of the shapes change when you change the size of the pattern blocks you measure with?);</li> </ul>			
<ul style="list-style-type: none"> <li>describe, through investigation using grid paper, the relationship between the size of a unit of area and the number of units needed to cover a surface</li> </ul>			
<ul style="list-style-type: none"> <li>compare and order a collection of objects, using standard units of mass (i.e., kilogram) and/or capacity (i.e., litre);</li> </ul>			
<ul style="list-style-type: none"> <li>solve problems involving the relationships between minutes and hours, hours and days, days and weeks, and weeks and years, using a variety of tools (e.g., clocks, calendars, calculators).</li> </ul>	26		

# CAT-4 Match to the Ontario Curriculum

Level 13 to Grade 3

<b>Mathematics</b> Ontario Curriculum, 2005 Geometry and Spatial Sense	<i>Canadian Achievement Tests, Fourth Edition (CAT-4)</i>		
	Multiple-Choice Tests		Constructed-Response Tasks
	Mathematics	Computation and Estimation	Math Processes
<i>Geometric Properties</i>			
By the end of Grade 3, students will: <ul style="list-style-type: none"> <li>use a reference tool (e.g., paper corner, pattern block, carpenter’s square) to identify right angles and to describe angles as greater than, equal to, or less than a right angle</li> </ul>			
<ul style="list-style-type: none"> <li>identify and compare various polygons (i.e., triangles, quadrilaterals, pentagons, hexagons, heptagons, octagons) and sort them by their geometric properties (i.e., number of sides; side lengths; number of interior angles; number of right angles);</li> </ul>	46		
<ul style="list-style-type: none"> <li>compare various angles, using concrete materials and pictorial representations, and describe angles as bigger than, smaller than, or about the same as other angles (e.g., “Two of the angles on the red pattern block are bigger than all the angles on the green pattern block.”);</li> </ul>			
<ul style="list-style-type: none"> <li>compare and sort prisms and pyramids by geometric properties (i.e., number and shape of faces, number of edges, number of vertices), using concrete materials;</li> </ul>	24, 31, 39		
<ul style="list-style-type: none"> <li>construct rectangular prisms (e.g., using given paper nets; using Polydrons), and describe geometric properties (i.e., number and shape of faces, number of edges, number of vertices) of the prisms.</li> </ul>			
<i>Geometric Relationships</i>			
By the end of Grade 3, students will: <ul style="list-style-type: none"> <li>solve problems requiring the greatest or least number of two-dimensional shapes (e.g., pattern blocks) needed to compose a larger shape in a variety of ways (e.g., to cover an outline puzzle)</li> </ul>			
<ul style="list-style-type: none"> <li>explain the relationships between different types of quadrilaterals (e.g., a square is a rectangle because a square has four sides and four right angles; a rhombus is a parallelogram because opposite sides of a rhombus are parallel);</li> </ul>			
<ul style="list-style-type: none"> <li>identify and describe the two-dimensional shapes that can be found in a three dimensional figure</li> </ul>	31		
<ul style="list-style-type: none"> <li>describe and name prisms and pyramids by the shape of their base (e.g., rectangular prism, square-based pyramid);</li> </ul>			
<ul style="list-style-type: none"> <li>identify congruent two-dimensional shapes by manipulating and matching concrete materials (e.g., by translating, reflecting, or rotating pattern blocks).</li> </ul>			
<i>Location and Movement</i>			
By the end of Grade 3, students will: <ul style="list-style-type: none"> <li>describe movement from one location to another using a grid map (e.g., to get from the swings to the sandbox, move three squares to the right and two squares</li> </ul>			

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Level 13 to Grade 3

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	Multiple-Choice Tests		Constructed-Response Tasks
	Mathematics	Computation and Estimation	Math Processes
<ul style="list-style-type: none"> <li>flips, slides, and turns, through investigation using concrete materials and physical motion, and name flips, slides, and turns as reflections, translations, and rotations (e.g., a slide to the right is a translation; a turn is a rotation);</li> </ul>			
<ul style="list-style-type: none"> <li>complete and describe designs and pictures of images that have a vertical, horizontal, or diagonal line of symmetry (Sample problem: Draw the missing portion of the given butterfly on grid paper.).</li> </ul>	22, 45		

# CAT-4 Match to the Ontario Curriculum

Level 13 to Grade 3

<b>Mathematics</b> Ontario Curriculum, 2005 Patterning and Algebra	<i>Canadian Achievement Tests, Fourth Edition (CAT-4)</i>		
	Multiple-Choice Tests		Constructed-Response Tasks
	Mathematics	Computation and Estimation	Math Processes
<i>Specific Expectations Patterns and Relationships</i>			
By the end of Grade 3, students will: <ul style="list-style-type: none"> <li>identify, extend, and create a repeating pattern involving two attributes (e.g., size, colour, orientation, number), using a variety of tools (e.g., pattern blocks, attribute blocks, drawings)</li> </ul>	5, 12, 27		
<ul style="list-style-type: none"> <li>identify and describe, through investigation, number patterns involving addition, subtraction, and multiplication, represented on a number line, on a calendar, and on a hundreds chart (e.g., the multiples of 9 appear diagonally in a hundreds chart);</li> </ul>	14, 38		
<ul style="list-style-type: none"> <li>extend repeating, growing, and shrinking number patterns</li> </ul>	7, 36, 43, 47		
<ul style="list-style-type: none"> <li>create a number pattern involving addition or subtraction, given a pattern represented on a number line or a pattern rule expressed in words</li> </ul>	30		
<ul style="list-style-type: none"> <li>represent simple geometric patterns using a number sequence, a number line, or a bar graph (e.g., the given growing pattern of toothpick squares can be represented numerically by the sequence 4, 7, 10, ..., which represents the number of toothpicks used to make each figure);</li> </ul>			
<ul style="list-style-type: none"> <li>demonstrate, through investigation, an understanding that a pattern results from repeating an action (e.g., clapping, taking a step forward every second), repeating an operation (e.g., addition, subtraction), using a transformation (e.g., slide, flip, turn), or making some other repeated change to an attribute (e.g., colour, orientation).</li> </ul>	16		
<i>Specific Expectations Expressions and Equality</i>			
By the end of Grade 3, students will: <ul style="list-style-type: none"> <li>determine, through investigation, the inverse relationship between addition and subtraction (e.g., since <math>4 + 5 = 9</math>, then <math>9 - 5 = 4</math>; since <math>16 - 9 = 7</math>, then <math>7 + 9 = 16</math>);</li> </ul>			
<ul style="list-style-type: none"> <li>determine, the missing number in equations involving addition and subtraction of one- and two-digit numbers, using a variety of tools and strategies (e.g., modelling with concrete materials, using guess and check with and without the aid of a calculator) (Sample problem: What is the missing number in the equation <math>25 - 4 = 15 + \_?</math>);</li> </ul>	33		
<ul style="list-style-type: none"> <li>identify, through investigation, the properties of zero and one in multiplication (i.e., any number multiplied by zero equals zero; any number multiplied by 1 equals the original number) (<b>Sample problem:</b> Use tiles to create arrays that represent <math>3 \times 3</math>, <math>3 \times 2</math>, <math>3 \times 1</math>, and <math>3 \times 0</math>. Explain what you think will happen when you multiply any number by 1, and when you multiply any number by 0.);</li> </ul>			
<ul style="list-style-type: none"> <li>identify, through investigation, and use the associative property of addition to facilitate computation with whole numbers (e.g., "I know that <math>17 + 16</math> equals <math>17 + 3 + 13</math>. This is easier to add in my head because I get <math>20 + 13 = 33</math>.")</li> </ul>			

# CAT-4 Match to the Ontario Curriculum

Level 13 to Grade 3

<b>Mathematics</b> Ontario Curriculum, 2005 Data Management and Probability	Canadian Achievement Tests, Fourth Edition (CAT-4)		
	Multiple-Choice Tests		Constructed-Response Tasks
	Mathematics	Computation and Estimation	Math Processes
<i>Specific Expectations Collection and Organization of Data</i>			
By the end of Grade 3, students will:			
<ul style="list-style-type: none"> <li>demonstrate an ability to organize objects into categories, by sorting and classifying objects using two or more attributes simultaneously</li> </ul>			
<ul style="list-style-type: none"> <li>collect data by conducting a simple survey about themselves, their environment, issues in their school or community, or content from another subject;</li> </ul>			
<ul style="list-style-type: none"> <li>collect and organize categorical or discrete primary data and display the data in charts, tables, and graphs (including vertical and horizontal bar graphs), with appropriate titles and labels and with labels ordered appropriately along horizontal axes, as needed, using many-to-one correspondence (e.g., in a pictograph, one car sticker represents 3 cars; on a bar graph, one square represents 2 students)</li> </ul>	13, 18, 19		
<i>Data Relationships</i>			
By the end of Grade 3, students will:			
<ul style="list-style-type: none"> <li>read primary data presented in charts, tables, and graphs (including vertical and horizontal bar graphs), then describe the data using comparative language, and describe the shape of the data (e.g., “Most of the data are at the high end.”; “All of the data values are different.”);</li> </ul>	17, 41, 44		
<ul style="list-style-type: none"> <li>interpret and draw conclusions from data presented in charts, tables, and graphs;</li> </ul>	2, 6, 21, 23, 35		
<ul style="list-style-type: none"> <li>demonstrate an understanding of mode (e.g., “The mode is the value that shows up most often on a graph.”), and identify the mode in a set of data.</li> </ul>			
<i>Probability</i>			
By the end of Grade 3, students will:			
<ul style="list-style-type: none"> <li>predict the frequency of an outcome in a simple probability experiment or game (e.g., “I predict that an even number will come up 5 times and an odd number will come up 5 times when I roll a number cube 10 times.”), then perform the experiment, and compare the results with the predictions, using mathematical language;</li> </ul>	10		
<ul style="list-style-type: none"> <li>demonstrate, through investigation, an understanding of fairness in a game and relate this to the occurrence of equally likely outcomes.</li> </ul>			