Assessment of Reading, Writing and Mathematics, Primary Division (Grades 1–3), Framework

This framework provides a detailed description of the EQAO primary-division Assessment of Reading, Writing and Mathematics, which is conducted once a year in Ontario. The framework also describes how the assessment aligns with the expectations in *The Ontario Curriculum*, *Grades 1–8: Language* (2023) and *The Ontario Curriculum*, *Grades 1–8: Mathematics* (2020).

Who Is This Framework For?

This framework has been prepared for

- educators;
- parents, guardians; and
- · members of the general public.

Contents

Language

- What Is Assessed?
- The Assessment Process and Design
- The Blueprint
- The Scoring and Reporting of Student Results

Mathematics

- What Is Assessed?
- The Assessment Process and Design
- The Blueprint
- The Scoring and Reporting of Student Results

Assessment of Reading, Writing and Mathematics, Primary Division (Grades 1–3)

LANGUAGE COMPONENT

WHAT IS ASSESSED?

What Is Assessed in the Reading and Writing Components of the Primary-Division Assessment?

EQAO's primary-division assessment is a standards-referenced large-scale assessment based on *Ontario Curriculum* expectations and standards (levels of achievement) for student proficiency.

The Ontario Curriculum, Grades 1–8: Language (2023) is grounded in the belief that all students can succeed when they develop knowledge and skills in language and literacy.

The following excerpts from the "<u>Vision and Goals</u>" and "<u>Strand A: Literacy Connections and Applications</u>" sections of *The Ontario Curriculum*, Grades 1–8 (2023) highlight the foundational value of language and literacy skills:

Literacy is essential for success: it affects all academic achievement and is associated with social, emotional, economic, and physical health. The Ontario language curriculum is designed to support students in developing the language and literacy knowledge and skills they need to succeed in education and in life, and to encourage students to experience the joy and possibility that literacy learning can ignite. The Ontario Curriculum, Grades 1–8: Language, 2023

Language is the basis for thinking, communicating, and learning. Students need language skills to comprehend ideas and information, to interact socially, to inquire into areas of interest and study, and to express themselves clearly and demonstrate their learning.

Students develop an understanding of diverse identities, experiences, perspectives, histories, and contributions, including those of First Nations, Métis, and Inuit individuals, communities, groups, and nations. They develop this knowledge and these skills while reading, listening to, and viewing culturally diverse texts, including digital and media texts, and while writing, speaking, and representing to demonstrate their learning.

For the purpose of the primary-division assessment, language constitutes the reading and writing skills required to comprehend and respond to reading texts, and to communicate through written forms as expected in *The Ontario Curriculum, Grades 1–8: Language* (2023) up to the end of Grade 3.

Reading and Writing

Strand B: Foundations of Language

"Strand B: Foundations of Language" is assessed in both reading and writing.

The primary-division assessment focuses on the mandatory learning associated with specific expectations within spelling, vocabulary, syntax and sentence structure, grammar, and capitalization and punctuation. In the blueprint section, the expectations or parts of expectations that cannot be measured appropriately by a large-scale assessment appear in italics.

Reading

Strand C: Comprehension: Understanding and Responding to Texts

The primary-division assessment focuses on three reading skills:

- 1. understanding explicitly stated information and ideas;
- 2. understanding implicitly stated information and ideas (making inferences); and
- 3. responding to a reading selection by making connections and integrating the reader's personal knowledge and experience with the information and ideas in a text.

Writing

Strand D: Composition: Expressing Ideas and Creating Texts

The primary-division assessment focuses on three writing skills:

- 1. developing a main idea with sufficient supporting details;
- 2. organizing information and ideas in a coherent manner; and
- 3. using conventions (spelling, syntax and sentence structure, grammar, cohesive ties, capitalization and punctuation) in a manner that does not distract from clear communication.

THE ASSESSMENT PROCESS AND DESIGN

What Is in the Language Component of the Primary-Division Assessment?

The language component of the primary-division assessment consists of various types of questions, including selected-response questions, such as drag and drop, drop-down menu, checklist, and single- and multiple-selection questions.



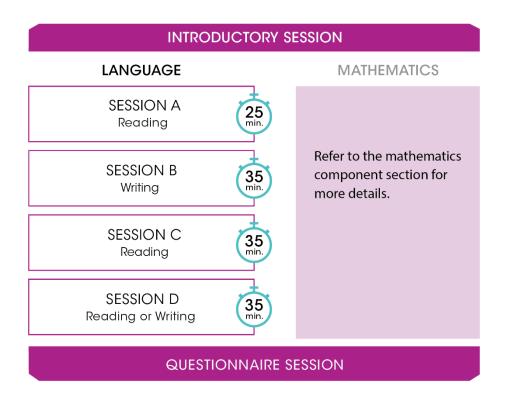
Introductory Session: Students have the opportunity to participate in an introductory session to familiarize them with the assessment. During this introductory session, students can access a sample test with both the language and mathematics components. The sample test for the language component consists of two sessions that gives students the opportunity to become familiar with the various types of questions that will be on the assessment. Students will also be able to try out the tools (e.g., text-to-speech, zoom in and zoom out, highlighter) available in the assessment. The sample test is also available on the EQAO public website.



Assessment Sessions: The language component of the assessment contains four sessions (Sessions A, B, C and D). The sessions contain operational questions which count toward a student's final result. The sessions also contain field-test questions that are embedded in the assessment. These questions are not used in determining a student's final result. Each session is designed to be completed within 35 minutes, depending on the session, and students complete each session in one sitting. The sessions can be completed back to back with breaks in between or on different dates and times.



Questionnaire Session: At the end of the primary-division assessment, a voluntary questionnaire is available to students. The questionnaire asks them about their attitudes and perceptions with respect to literacy, mathematics, transferrable skills and their learning environments. EQAO will use this data to provide schools, boards, teachers and parents/guardians with information on how student attitudes and perceptions are related to students' mathematics and language achievement.



The language component of the assessment contains 29 operational questions that count toward the student's final result. The following table provides information on the number of questions by type:



The Primary-Division Assessment Language Component: Number of Questions by Type

	Selected-Response Questions	Open-Response Questions	Number of Questions
Operational Reading	14	2	16
Operational Writing	12	1	13
Field Test	2 to 12	1	3 to 13
Total Number of Questions	28 to 38	4	32 to 42

The following table provides information on the number of raw score points and the percentage of total raw score points by question type:

Reading: Number of Raw Score Points and Percentage of Total Raw Score Points by Question Type

Question Type	Number of Raw Score Points	Percentage of Total Raw Score Points
Selected-Response	19	70%
Open-Response	8	30%
Total	27	100%

Writing: Number of Raw Score Points and Percentage of Total Raw Score Points by Question Type

Question Type Number of Raw Score Points		Percentage of Total Raw Score Points
Selected-Response	13	65%
Open-Response	7	35%
Total	20	100%

What Is the Design of the Language Component of the Primary-Division Assessment?

The language component of the primary-division assessment uses a linear test design. Several equivalent test forms of the assessment are assembled according to the same content and statistical specifications ahead of administration of the assessment. The test forms are fixed in length. The operational component of the assessment consists of questions from the following types of reading texts:

- **Informational Text**: a reading text, four selected-response reading questions and one open-response question
- Narrative Text: a reading text, 10 selected-response reading questions and one openresponse question
- **Writing:** 12 selected-response writing questions and one open-response question based on a prompt

Understanding Ontario's Student Achievement Levels

After all the questions in a student's assessment are scored, the data from the operational questions are used to determine the student's level of achievement. The Individual Student Report shows both the level and the range within the level at which the student performed. This may provide information for parents/guardians and teachers to use in planning for improvement.

EQAO uses the definitions from the Ontario Ministry of Education levels of achievement for the levels it reports: Level 1 represents achievement that falls much below the provincial standard. Level 2 identifies achievement that is approaching the provincial standard. Level 3 represents

achievement at the provincial standard. The characteristics given for Level 3 in the achievement charts in *The Ontario*Curriculum correspond to the provincial standard for achievement of the curriculum expectations. Parents/guardians of students achieving Level 3 can be confident that their children will be prepared for work in the next grade.

Level 4 identifies achievement that surpasses the provincial standard. It should be noted that achievement at Level 4 does not mean that the student has achieved expectations beyond those specified for a particular grade.

For more information, refer to the <u>Levels of Achievement</u> in the "Assessment and Evaluation" section of *The Ontario Curriculum*.

THE BLUEPRINT

How Are Curriculum Expectations Reflected in the Language Component of the Primary-Division Assessment?

The assessment blueprint was updated as a result of the release of the revised *Ontario Curriculum, Grades 1–8: Language* (2023). The assessment blueprint presents the expectations in clusters and gives the number and types of questions on the assessment.

Some expectations cannot be appropriately assessed within the limits of a large-scale assessment. For instance, on a large-scale assessment, reading expectations that require students to apply word-level reading and spelling skills to complex multisyllabic words, with increasing automaticity, are best assessed by the classroom teacher. Similarly, it is difficult to measure writing expectations that require students to identify the strategies that helped them develop ideas for texts and organize content.

Although the primary-division assessment focuses on the Grade 3 curriculum expectations, there may be questions from the curriculum from Grades 1 and 2.

In the blueprint, the expectations or parts of expectations that cannot be measured appropriately by a large-scale assessment appear in italics.



Reading Component Question Type by Reading Text Informational Narrative **Grade 3 Expectations Texts Texts** (450–500 words) (200–250 words) **B.** Foundations of Language Language Foundations for Reading and Writing demonstrate an understanding of foundational language knowledge and skills, and apply this understanding when reading and writing Specific Expectations for Overall B2 Word-Level Reading and Spelling: Using Phonics Knowledge use consolidated phonics knowledge, including phonemic blending to read words and set for variability to correct B2.1 approximations, and phonemic segmentation to spell phonetically regular monosyllabic and multisyllabic words, in isolation and various text contexts Word-Level Reading and Spelling: Using Orthographic Knowledge **B2.2** use consolidated orthographic knowledge, including position-3 selected-2 selectedbased tendencies, to make a spelling choice or accurately response response pronounce a word when reading auestions **auestions** Word-Level Reading and Spelling: Using Morphological Knowledge B2.3 use developing knowledge of the meanings of words and morphemes (i.e., bases, prefixes, and suffixes) to read and spell words Vocabulary demonstrate an understanding of a variety of words, acquire and **B2.4** use explicitly taught vocabulary in various contexts, including other subject areas, and use morphological knowledge to analyze and understand new words in context Reading Fluency: Accuracy, Rate, and Prosody read words, complex sentences, and paragraphs in a variety of texts fluently, with accuracy and appropriate pacing to support B2.5

comprehension, and read aloud using varied expression and intonation according to the purpose of reading

	Reading Component (continued)			
		Question Type by Reading Text		
	Grade 3 Expectations	Narrative Texts (450–500 words)	Informational Texts (200–250 words)	
B. Fou	undations of Language			
В3	Language Conventions for Reading and Writing			
	demonstrate an understanding of sentence structure, grammar, cohesive ties, and capitalization and punctuation, and apply this knowledge when reading and writing sentences, paragraphs, and a variety of texts			
	Specific Expectations for Overall B3			
B3.1	Syntax and Sentence Structure identify and construct various sentence types and forms, including simple sentences, compound sentences, and complex sentences containing adverbial clauses			
B3.2	Grammar demonstrate an understanding of the functions of parts of speech in sentences, including possessive nouns, linking verbs and the progressive tense, interrogative adjectives and adverbs, and prepositions and interjections, and use this knowledge to support comprehension and communicate meaning clearly	Continued from previous page	Continued from previous page	
B3.3	Capitalization and Punctuation use their understanding of the meaning and function of capitalization and punctuation to communicate meaning clearly, including the use of capital letters in dialogue and for words in titles, commas and quotation marks to mark direct speech and direct quotations from texts within sentences, and apostrophes to indicate contractions			

	Reading Component (continued)			
		Question Type by Reading Text		
	Grade 3 Expectations	Narrative Texts (450–500 words)	Informational Texts (200–250 words)	
C. Cor	mprehension: Understanding and Responding to Texts			
C1	Knowledge about Texts			
	apply foundational knowledge and skills to understand a variety of texts, including digital and media texts, by creators with diverse identities, perspectives, and experience, and demonstrate an understanding of the patterns, features, and elements of style associated with various text forms and genres			
	Specific Expectations for Overall C1			
C1.1	Using Foundational Knowledge and Skills to Comprehend Texts read and comprehend various texts, using knowledge of words, grammar, cohesive ties, sentence structures, and background knowledge			
C1.2	Text Forms and Genres identify and describe some characteristics of literary and informational text forms and their associated genres			
C1.3	Text Patterns and Features identify some text patterns, such as order of importance and cause and effect, and text features, such as headings and an index, associated with various text forms, and explain how they help readers, listeners, and viewers understand the meaning	3 selected- response questions	1 selected- response question	
C1.4	Visual Elements of Texts describe ways in which images, graphics, and visual design are used in a given text, and demonstrate an understanding of their purpose and connection to the content of the text			
C1.5	Elements of Style identify some elements of style in texts, including voice, word choice, word patterns, and sentence structure, and explain how they help communicate meaning			
C1.6	Point of View identify the narrator's point of view, including first person or third person, in a variety of texts, and suggest alternative points of view to tell each story			
C1.7	Indigenous Context of Various Text Forms read, listen to, and view various forms of texts by diverse First Nations, Métis, and Inuit creators and demonstrate understanding of various aspects of First Nations, Métis, and Inuit histories, cultures, relationships, communities, groups, nations, and lived experiences			

l	Reading Component (continued)			
		Question Type by Reading Text		
	Grade 3 Expectations	Narrative Texts (450–500 words)	Informational Texts (200–250 words)	
C. Co	mprehension: Understanding and Responding to Texts			
C2	Comprehension Strategies			
	apply comprehension strategies before, during, and after reading, listening to, and viewing a variety of texts, including digital and media texts, by creators with diverse identities, perspectives, and experience, in order to understand and clarify the meaning of texts			
	Specific Expectations for Overall C2			
C2.1	Prereading: Activating Prior Knowledge activate prior knowledge, including knowledge gained from personal and text experiences, that they can use to make connections and understand the topic and form of new texts	4 selected- response questions 1 open-response question	1 selected- response question 1 open- response question	
C2.2	Prereading: Identifying the Purpose for Reading, Listening, and Viewing identify specific purposes for engaging with texts, including learning facts or information, or to gain insight or new perspectives			
C2.3	Monitoring of Understanding: Making and Confirming Predictions make predictions using background knowledge, text features, and evidence from the text, and adjust their understanding based on new information			
C2.4	Monitoring of Understanding: Ongoing Comprehension Check use strategies such as rereading, visualizing, and asking questions, to monitor and confirm their understanding of various texts			
C2.5	Monitoring of Understanding: Making Connections identify connections between ideas expressed in texts and their knowledges and lived experiences, the ideas in other texts, and the world around them			
C2.6	Summarizing: Identifying Relevant Information and Drawing Conclusions identify the main idea in a simple text, and relate important details in sequence			
C2.7	Reflecting on Learning describe how strategies, such as visualizing, making predictions, and connecting to their experiences, have helped them comprehend various texts			

	Reading Component (continued)			
		Question Type by Reading Text		
	Grade 3 Expectations	Narrative Texts (450–500 words)	Informational Texts (200–250 words)	
C. Co	mprehension: Understanding and Responding to Texts			
С3	Critical Thinking in Literacy			
	apply critical thinking skills to deepen understanding of texts, and analyze how various perspectives and topics are communicated and addressed in a variety of texts, including digital, media, and cultural texts			
	Specific Expectation for Overall C3			
C3.1	Literary Devices identify literary devices, including metaphor and assonance, and describe how they help communicate meaning			
C3.2	Making Inferences make inferences using stated and implied information and ideas to understand texts			
C3.3	Analyzing Texts analyze various texts, including literary and informational texts, by identifying main and supporting ideas, sequencing information, and comparing and contrasting elements			
C3.4	Analyzing Cultural Elements of Texts identify some cultural elements represented in various texts, including symbols, language, and values, and pose questions and share ideas about how these elements contribute to the meaning			Continued from previous page
C3.5	Perspectives within Texts identify explicit and implicit perspectives communicated in texts, providing evidence, and explain how these perspectives could influence an audience			
C3.6	Analysis and Response describe personal thoughts and feelings about ideas presented in texts, such as ideas about diversity, inclusion, and accessibility			
C3.7	Indigenous Contexts identify some ways in which texts created by First Nations, Métis, and Inuit individuals, communities, groups, or nations communicate about historical periods, cultural experiences, and events, and how they relate to current lived experiences			
C3.8	Reflecting on Learning identify thinking skills that have helped them analyze and better understand various texts			

Reading Component Question Totals		
Narrative Texts Informational Texts (450–500 words) (200–250 words)		
10 selected-response questions 1 open-response question	4 selected-response questions 1 open-response question	

22	Writing Component	
	Grade 3 Expectations	Question Types
B. Fou	ındations of Language	
B2	Language Foundations for Reading and Writing	
	demonstrate an understanding of foundational language knowledge and skills, and apply this understanding when reading and writing	
	Specific Expectations for Overall B2	
B2.1	Word-Level Reading and Spelling: Using Phonics Knowledge use consolidated phonics knowledge, including phonemic blending to read words and set for variability to correct approximations, and phonemic segmentation to spell phonetically regular monosyllabic and multisyllabic words, in isolation and various text contexts	Selected-
B2.2	Word-Level Reading and Spelling: Using Orthographic Knowledge use consolidated orthographic knowledge, including position-based tendencies, to make a spelling choice or accurately pronounce a word when reading	response questions and open- response question
B2.3	Word-Level Reading and Spelling: Using Morphological Knowledge use developing knowledge of the meanings of words and morphemes (i.e., bases, prefixes, and suffixes) to read and spell words	
B2.4	Vocabulary demonstrate an understanding of a variety of words, acquire and use explicitly taught vocabulary in various contexts, including other subject areas, and use morphological knowledge to analyze and understand new words in context	
B2.5	Reading Fluency: Accuracy, Rate, and Prosody read words, complex sentences, and paragraphs in a variety of texts fluently, with accuracy and appropriate pacing to support comprehension, and read aloud using varied expression and intonation according to the purpose of reading	

ı	Writing Component (continued)			
l	Grade 3 Expectations	Question Types		
B. Fo	undations of Language			
В3	Language Conventions for Reading and Writing			
	demonstrate an understanding of sentence structure, grammar, cohesive ties, and capitalization and punctuation, and apply this knowledge when reading and writing sentences, paragraphs, and a variety of texts			
	Specific Expectations for Overall B3			
B3.1	Syntax and Sentence Structure identify and construct various sentence types and forms, including simple sentences, compound sentences, and complex sentences containing adverbial clauses	Selected- response questions		
B3.2	Grammar demonstrate an understanding of the functions of parts of speech in sentences, including possessive nouns, linking verbs and the progressive tense, interrogative adjectives and adverbs, and prepositions and interjections, and use this knowledge to support comprehension and communicate meaning clearly	and open- response question		
B3.3	Capitalization and Punctuation use their understanding of the meaning and function of capitalization and punctuation to communicate meaning clearly, including the use of capital letters in dialogue and for words in titles, commas and quotation marks to mark direct speech and direct quotations from texts within sentences, and apostrophes to indicate contractions			
D. Co	mposition: Expressing Ideas and Creating Texts			
D1	Developing Ideas and Organizing Content			
	plan, develop ideas, gather information, and organize content for creating texts of various forms, including digital and media texts, on a variety of topics			
	Specific Expectations for Overall D1			
D1.1	Purpose and Audience identify the topic, purpose, and audience for various texts they plan to create, and describe how the chosen text form and genre will help communicate their intended meaning	Selected- response		
D1.2	Developing Ideas generate and develop ideas about given and chosen topics, using various strategies, and drawing on various resources, including their own lived experiences, and learning from other subject areas	questions and open- response		
D1.3	Research gather information and content relevant to a topic, using three or more sources	question		
D1.4	Organizing Content sort and sequence ideas and information, using appropriate strategies and tools, taking into account the text form and genre to be used			
D1.5	Reflecting on Learning identify the strategies that helped them develop ideas for texts and organize content			

Writing Component (continued)			
	Grade 3 Expectations	Question Types	
D. Co	mposition: Expressing Ideas and Creating Texts		
D2	Creating Texts		
	apply knowledge and understanding of various text forms and genres to create, revise, edit, and proofread their own texts, using a variety of media, tools, and strategies, and reflect critically on created texts		
	Specific Expectations for Overall D2		
D2.1	Producing Drafts draft short texts of various forms and genres, including narrative, persuasive, and informational texts, using a variety of media, tools, and strategies		
D2.2	Printing and Handwriting begin to write in cursive, forming letters with appropriate formation patterns, size, placement, and spacing		
D2.3	Voice demonstrate a personal voice in their texts, using descriptive words and sentence patterns to express their thoughts, feelings, and opinions about the topic		
D2.4	Point of View identify the point of view, including first person or third person, used in their texts	Selected- response	
D2.5	Revision make simple revisions to draft texts, including replacing words and adding sentences, to improve content and clarity, using feedback from others	questions and open- response	
D2.6	Editing and Proofreading edit draft texts to improve accuracy and style, checking for errors in spelling, punctuation, grammar, and text conventions, and proofread edited texts to make corrections	question	
D3	Publishing, Presenting, and Reflecting		
	select suitable and effective media, techniques, and tools to publish and present final texts, and critically analyze how well the texts address various topics		
	Specific Expectations for Overall D3		
D3.1	Producing Final Texts produce final texts using simple techniques, to achieve the intended effect		
D3.2	Publishing and Presenting Texts present the texts they have created using appropriate strategies, including by reading aloud with expression		
D3.3	Reflecting on Learning identify the strategies that helped them present and communicate their message, and explain how they helped them improve as a text creator		

Writing Component Question Totals		
Selected-Response Questions Open-Response Questions		
12 selected-response questions	1 open-response question based on a prompt	

Specific Expectations

Please note that the conventions (syntax and sentence structure, grammar, cohesive ties, and capitalization and punctuation) of writing are assessed in both selected-response and open-response answers.

THE SCORING AND REPORTING OF STUDENT RESULTS

How Are the Questions in the Language Component of the Primary-Division Assessment Scored?

The selected-response questions are scored automatically (computer-scored), while open-response questions are scored by qualified educators who are trained to follow the principles of clear and consistent rubrics. Each open-response question on the assessment is scored according to a guide called an "item-specific rubric." The following are the general (or "generic") rubrics from which the item-specific rubrics are developed.

How Is a Student's Overall Level of Achievement Determined?

The Individual Student Report provides a level for reading and writing for each student. This information enables students, parents/guardians and teachers to plan for improvement. A student's outcome is assigned using a statistical procedure that takes into account the student's responses to the questions on the assessment *and* the characteristics of each question, such as difficulty. This procedure, known as Item Response Theory, assumes a continuum of reading and writing ability (as reflected by the achievement levels 1 to 4), and locates the student's outcome along that continuum.

The Individual Student Report provides this outcome by indicating the overall level of achievement for reading, writing and mathematics for the student, and the student report shows where on the continuum the student's results are located for each.

Individual Student Reports are provided to school administrators to provide to parents/guardians in the fall of the school year following the assessment. The following is a sample Individual Student Report.



Assessment of Reading, Writing and Mathematics, Primary Division (Grades 1–3)

Individual Student Report, YEAR

SAMPLE NAME

Ontario Education Number: 000-000-000
School: Sample School
School Board: Sample Board

STUDENT RESULTS

EQAO's primary-division assessment tests the reading, writing and mathematics skills students are expected to have gained by the end of Grade 3.

	NE 1 Not enough evidence to be assigned a Level 1	Level 1 Much below the provincial standard	Level 2 Approaches the provincial standard	Level 3 Meets the provincial standard	Level 4 Surpasses the provincial standard
Reading:					
Writing:					
Mathematics:					

Each level represents a range of achievement. The position of the shows where, within the range, the student's result is located (from low to high).

These results are an objective indicator of the student's reading, writing and mathematics achievement in relation to the provincial standard. The provincial standard is Level 3, which corresponds to a B- to B+. The four achievement levels are the same levels teachers use in the classroom and on report cards to evaluate students' progress.

Students completed four language sessions and four mathematics stages. The students were asked to do the following:

Language—Reading

Read two types of texts (narrative and informational) and answer questions related to the expectations in the reading strand of the language curriculum.

Question types* included checklist, drag and drop, drop-down menu, single- and multiple-selection and open-response.

Language—Writing

Answer questions related to the expectations in the writing strand of the language curriculum. Question types* included drag and drop, drop-down menu, single-selection and open-response.

Mathematics

Answer questions related to the expectations in the strands of the mathematics curriculum. Question types" included ordering, drag and drop, and single- and multiple-selection.

"Note: The alternative version of the assessment did not include all the types of questions.

For a detailed description of the design of the assessment and how it aligns with the expectations in The Ontario Curriculum, please see the Assessment of Reading, Writing and Mathematics, Primary Division, Framework, available on the EQAO website at www.eqao.com.

EQAO conducts province-wide assessments at the primary, junior and secondary levels to measure student achievement against curriculum expectations. The data are widely used as an additional tool to guide improvements in education at the individual, school and provincial levels. For additional information and useful resources, visit www.eqao.com.

This report contains personal information that is protected under the Freedom of Information and Protection of Privacy Act.

Generic EQAO Scoring Rubrics for the Primary-Division Assessment



Generic Primary Reading Rubric—Open-Response

Code	Descriptor
В	Blank: nothing written or drawn (paper version only) or typed in the space provided
I	The response is one of the following:
	 a restatement of the question illegible: cannot be read; completely crossed out or erased (paper version only); not written in English irrelevant: does not attempt to answer the question or the topic of the question (e.g., has drawings, "I don't know," random characters, a comment about the task) off topic: unrelated to the text or question
10	The response attempts to explain
	 The response answers an aspect of the question, or provides inaccurate support from the text, or makes no reference to the text.
20	The response indicates a partial understanding of
	 The response provides vague support from the text and/or limited support from the text and/or irrelevant support from the text.
	The response requires the reader to connect the support to what it is intended to prove.
30	The response indicates an understanding by explaining
	 The response includes some accurate and relevant support and may also contain some vague or underdeveloped support.
	The response requires the reader to make some connections between the support and what it is intended to prove.
40	The response indicates an understanding by explaining fully how and provides specific and relevant support.



Generic Primary Writing Rubric—Topic Development

Code	Descriptor				
В	Blank: nothing written, drawn (paper version only) or typed in the space provided				
ı	The response is/has one of the following:				
	 illegible: cannot be read; completely crossed out or erased (paper version only); not written in English 				
	 irrelevant: does not attempt the assigned prompt (e.g., has drawings, "I don't know," random characters, a comment about the task) 				
	 off topic: there is no relationship between the written work and the prompt errors in conventions that prevent communication 				
10	The response is not developed; the ideas and information are limited and unclear. Organization* is random with few or no links between ideas. The response has a limited relationship to the assigned task.**				
20	The response is minimally developed with few ideas and little information. Organization* is minimal with weak links between ideas. The response is partly related to the assigned task.**				
30	The response has a clear focus and is adequately developed with ideas and supporting details. Organization* is simple or mechanical with adequate links between ideas. The response is clearly related to the assigned task.**				
40	The response has a clear focus and is well-developed with sufficient specific and relevant ideas and supporting details. Organization* is logical and coherent with effective links between ideas. The response has a thorough relationship to the assigned task.**				

^{*}Organization refers to the sequencing of information and events. The links may be explicit (e.g., transition words) or implicit (the right information at the right time).

^{**}Task refers to form, purpose and audience.



Generic Primary Writing Rubric—Conventions*

Code	Descriptor				
В	Blank: nothing typed, written or drawn (paper version only) in the space provided				
I	The response is/has one of the following:				
	 illegible: cannot be read; random characters; completely crossed out or erased (paper version only); not written in English 				
	 insufficient evidence to assess the use of conventions 				
	errors in conventions that prevent communication				
10	Errors in conventions interfere with communication				
20	Errors in conventions do not interfere with communication				
30	Conventions are used appropriately to communicate				

^{*} Conventions refers to spelling, syntax and sentence structure, grammar, cohesive ties, and capitalization and punctuation.

Assessment of Reading, Writing and Mathematics, Primary Division (Grades 1–3)

MATHEMATICS COMPONENT

WHAT IS ASSESSED?

What Is Assessed in the Mathematics Component of the Primary-Division Assessment?

Students in Grade 3 learn the knowledge and skills that are defined in the expectations found in *The Ontario Curriculum, Grades 1–8: Mathematics* (2020). The Grade 3 mathematics curriculum includes a focus on coding, financial literacy and mathematical modelling. The curriculum also emphasizes fundamental mathematics concepts and skills, and making connections between related mathematics concepts and between mathematics and everyday life. Mathematics spans several content strands. The strands in the elementary mathematics curriculum are the following:

- A. Social-Emotional Learning (SEL) Skills in Mathematics and the Mathematical Processes
- B. Number
- C. Algebra
- D. Data
- E. Spatial Sense
- F. Financial Literacy

EQAO's primary-division assessment is a standards-referenced large-scale assessment based on the Ontario Grade 3 mathematics curriculum expectations and standards (levels of achievement) for student proficiency. The assessment will consist of questions that cover students' knowledge and skills in the following strands: Number, Algebra, Data, Spatial Sense, and Financial Literacy. Although the assessment does not measure the content in the Social-Emotional Learning (SEL) Skills in Mathematics and the Mathematical Processes strand, students may be required to apply mathematical processes while completing the assessment.

Mathematics Content Descriptors: Grade 3

The following are highlights of student learning in Grade 3 mathematics from *The Ontario Curriculum*, listed by strand.

Number

- Number Sense
 - Whole Numbers
 - Fractions
- Operations
 - Properties and Relationships
 - Math Facts
 - Mental Math
 - Addition and Subtraction
 - Multiplication and Division

Algebra

- Patterns and Relationships
 - o Patterns
- Equations and Inequalities
 - Variables
 - Equalities and Inequalities
- Coding
 - Coding Skills
- Mathematical Modelling

Data

- Data Literacy
 - Data Collection and Organization
 - o Data Visualization
 - Data Analysis
- Probability
 - Probability

Spatial Sense

- · Geometric and Spatial Reasoning
 - Geometric Reasoning
 - Location and Movement
- Measurement
 - Length, Mass, and Capacity
 - o Time
 - o Area

Financial Literacy

- Money and Finances
 - Money Concepts

Categories of Knowledge and Skills

Each question on the mathematics component of EQAO's Assessment of Reading, Writing and Mathematics is mapped to an expectation in the Ontario Grade 3 mathematics curriculum and to one of three of the categories of knowledge and skills: Knowledge and Understanding, Application or Thinking. Questions in the mathematics component of the assessment are not mapped to the fourth category of knowledge and skills: Communication. EQAO has adapted the definitions of the three categories from the achievement chart found in *The Ontario Curriculum*. The following outlines EQAO's definitions that are used to determine the category for each assessment question.

Knowledge and Understanding

A question is mapped to the category Knowledge and Understanding if in order to answer the question, students must demonstrate only

- subject-specific content (knowledge) and/or
- comprehension of its meaning and significance (understanding).

These questions assess basic knowledge and/or understanding of concepts.

Application

A question is mapped to the category Application if in order to answer the question, students must either

- select the appropriate tool or
- get the necessary information and "fit" it to the problem.

A question may change from Knowledge and Understanding to Application if a context is added or if a tool required to answer the question is not provided.

Thinking

A question is mapped to the category Thinking if in order to answer the question, students must either

- select and sequence a variety of tools or
- demonstrate a critical thinking process (e.g., reasoning).

Students may need to make a plan to answer these questions.

There may be more than one way to answer a mathematics question. EQAO does not assess the process or tools students may use to determine their answer on selected-response questions. Each stage of the assessment has questions mapped to each of the three categories of knowledge and skills assessed. The category assigned to each question assumes that students have been taught the knowledge and skills outlined in the Grade 3 mathematics curriculum, as the EQAO assessment is completed toward the end of Grade 3.

THE ASSESSMENT PROCESS AND DESIGN

What Is in the Mathematics Component of the Primary-Division Assessment?

The mathematics component of the primary-division assessment consists of various types of selected-response questions, such as drag and drop, ordering, drop-down menu, checklist and single- and multiple-selection questions.



Introductory Session: Students have the opportunity to participate in an introductory session to familiarize them with the assessment. During this introductory session, students have access to a sample test with both the language and mathematics components. The sample test for the mathematics component consists of two stages (11 questions per stage) that give students the opportunity to become familiar with the various types of questions that may be on the assessment. Students will be able to try out the tools (e.g., text-to-speech, zoom in and zoom out, calculator) available in the assessment. The sample test is also available on the EQAO public website.



Assessment Stages: The mathematics component of the assessment contains four stages (11 questions per stage). Each stage is designed to be completed in approximately 30 minutes, and students complete each stage in one sitting. The stages can be completed back to back with breaks in between or on different dates and times.

The mathematics component of the assessment contains 44 questions (40 operational and four field-test questions) that are from all of the content strands that are assessed (Number, Algebra, Data, Spatial Sense, and Financial Literacy). The operational questions count toward a student's final result. The four embedded field-test questions are not considered when determining a student's result and are fewer than 10% of the total number of mathematics questions that are completed by students.

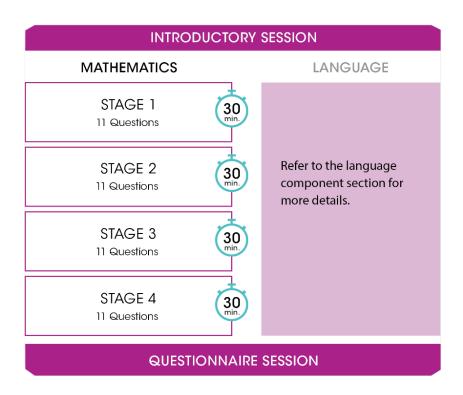


Primary-Division Assessment Mathematics Component: Number of Questions

Question Type	Number of Questions
Operational	40
Field Test	4
Total Number of Questions	44



Questionnaire Session: At the end of the primary-division assessment, a voluntary questionnaire is available to students. The questionnaire asks them about their attitudes and perceptions with respect to literacy, mathematics, transferable skills and their learning environment. EQAO will use this data to provide schools, boards, teachers and parents/guardians with information on how student attitudes and perceptions are related to students' mathematics and language achievement.



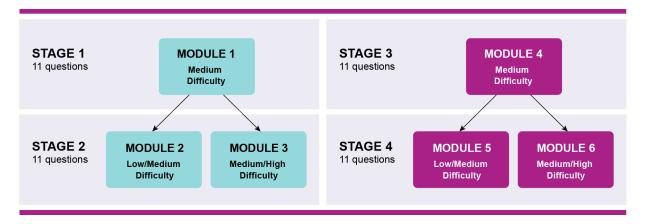
What Is the Design of the Mathematics Component of the Primary-Division Assessment?

The mathematics component of the primary-division assessment uses a multi-stage computer adaptive testing model that adapts to the individual student's performance as the student progresses through the stages.

Each stage is made up of modules that contain questions of a specific overall level of difficulty (medium, low/medium, or medium/high). The module that is presented to students in Stage 2 and Stage 4 is based on their achievement in the previous stage.

Each student begins Stage 1 by completing a set of questions with a medium overall level of difficulty contained in the module (Module 1 of Stage 1, as illustrated in the diagram below). Based on their performance on the operational questions in this first module, students are presented with a new module in Stage 2 with an overall level of difficulty of low/medium (Module 2) or medium/high (Module 3). The same process repeats for Stage 3 and Stage 4.

For more information, refer to the literature review: <u>Leveraging Multi-Stage Computer Adaptive Testing for Large-Scale Assessments</u>.



Any field-test questions in Stage 1 and Stage 3 are not considered when determining the module the student will be routed to in the next stage.

Understanding Ontario's Student Achievement Levels

After all the questions in a student's assessment are scored, the data from the operational questions are used to determine the student's level of achievement. The Individual Student Report shows both the level and the range within the level at which the student performed. This may provide information for parents/guardians and teachers to use in planning for improvement.

EQAO uses the definitions from the Ontario Ministry of Education levels of achievement for the levels it reports: Level 1 represents achievement that falls much below the provincial standard. Level 2 identifies achievement that is approaching the provincial standard. Level 3 represents

achievement at the provincial standard. The characteristics given for Level 3 in the achievement charts in *The Ontario Curriculum* correspond to the provincial standard for achievement of the curriculum expectations. Parents/guardians of students achieving Level 3 can be confident that their children will be prepared for work in the next grade.

Level 4 identifies achievement that surpasses the provincial standard. It should be noted that achievement at Level 4 does not mean that the student has achieved expectations beyond those specified for a particular grade.

For more information, refer to the <u>Levels of Achievement</u> in the "Assessment and Evaluation" section of *The Ontario Curriculum*.

THE BLUEPRINT

How Are Curriculum Expectations Reflected in the Mathematics Component of the Primary-Division Assessment?

The blueprint for the mathematics component of the primary-division assessment includes the overall and specific expectations from Strands B to F in *The Ontario Curriculum, Grades 1–8: Mathematics* (2020). The blueprint also provides the number of operational questions and the percentage of questions from each strand on the assessment that count toward the student's result. The Financial Literacy strand has been combined with the Number strand, as the Financial Literacy strand has only one specific expectation.

Although the primary-division assessment focuses on the Grade 3 curriculum expectations, there may be questions that involve the curriculum from Grades 1 and 2.



The Mathematical Processes

Although the primary-division assessment does not measure the mathematical processes, these are the processes through which students apply mathematical knowledge, concepts and skills.

Problem Solving

Reasoning and Proving

Reflecting

Connecting

Communicating

Representing

Selecting Tools and Strategies

Mathematics Component of the Primary-Division Assessment Blueprint

	Grade 3 Mathematics Expectations	Number of Questions	Percentage of Questions on the Assessment
B. Num	ber and F. Financial Literacy		
B. Num	ıber		
B1	Number Sense		
	demonstrate an understanding of numbers and make connections to the		
	way numbers are used in everyday life		
	Specific Expectations for Overall B1		
	Whole Numbers		
B1.1	read, represent, compose, and decompose whole numbers up to and including 1000, using a variety of tools and strategies, and describe various ways they are used in everyday life		
B1.2	compare and order whole numbers up to and including 1000, in various contexts		
B1.3	round whole numbers to the nearest ten or hundred, in various contexts		
B1.4	count to 1000, including by 50s, 100s, and 200s, using a variety of tools and strategies		
B1.5	use place value when describing and representing multi-digit numbers in a variety of ways, including with base ten materials		
	Fractions		
B1.6	use drawings to represent, solve, and compare the results of fair-share problems that involve sharing up to 20 items among 2, 3, 4, 5, 6, 8, and 10 sharers, including problems that result in whole numbers, mixed numbers, and fractional amounts		14
B1.7	represent and solve fair-share problems that focus on determining and using equivalent fractions, including problems that involve halves, fourths, and eighths; thirds and sixths; and fifths and tenths	14	$\frac{14}{40} = 35\%$ of the questions on the
B2	Operations		assessment
	use knowledge of numbers and operations to solve mathematical problems encountered in everyday life		
	Specific Expectations for Overall B2		
	Properties and Relationships		
B2.1	use the properties of operations, and the relationships between multiplication and division, to solve problems and check calculations		
B2.2	Math Facts recall and demonstrate multiplication facts of 2, 5, and 10, and related division facts		
	Mental Math		
B2.3	use mental math strategies, including estimation, to add and subtract whole numbers that add up to no more than 1000, and explain the strategies used		
	Addition and Subtraction		
B2.4	demonstrate an understanding of algorithms for adding and subtracting whole numbers by making connections to and describing the way other tools and strategies are used to add and subtract		
B2.5	represent and solve problems involving the addition and subtraction of whole numbers that add up to no more than 1000, using various tools and algorithms		

	Grade 3 Mathematics Expectations	Number of Questions	Percentage of Questions on the Assessment
B. Nun	nber (continued)		
	Multiplication and Division		
B2.6	represent multiplication of numbers up to 10 x 10 and division up to 100 ÷ 10, using a variety of tools and drawings, including arrays		
B2.7	represent and solve problems involving multiplication and division, including problems that involve groups of one half, one fourth, and one third, using tools and drawings		
B2.8	represent the connection between the numerator of a fraction and the repeated addition of the unit fraction with the same denominator using various tools and drawings, and standard fractional notation	Continued from	Continued from
B2.9	use the ratios of 1 to 2, 1 to 5, and 1 to 10 to scale up numbers and to solve problems	previous page	previous page
F. Fina	ncial Literacy	_	
F1	Money and Finances		
F1.1	demonstrate an understanding of the value and use of Canadian currency Specific Expectations for Overall F1 estimate and calculate the change required for various simple cash transactions involving whole-dollar amounts and amounts of less than		
	one dollar		
C. Alge		I	
C1	Patterns and Relationships		
	identify, describe, extend, create, and make predictions about a variety of		
	patterns, including those found in real-life contexts		
	Specific Expectations for Overall C1 Patterns		
	identify and describe repeating elements and operations in a variety of		
C1.1	patterns, including patterns found in real-life contexts		
C1.2	create and translate patterns that have repeating elements, movements, or operations using various representations, including shapes, numbers and tables of values		$\frac{8}{40} = 20\%$ of the questions
C1.3	determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in patterns that have repeating elements, movements, or operations		
C1.4	create and describe patterns to illustrate relationships among whole numbers up to 1000	8	
C2	Equations and Inequalities		on the assessment
	demonstrate an understanding of variables, expressions, equalities, and inequalities, and apply this understanding in various contexts.		สรรธรรกาษาเ
	Specific Expectations for Overall C2		
	Variables	1	
C2.1	describe how variables are used, and use them in various contexts as appropriate		
	Equalities and Inequalities		
C2.2	determine whether given sets of addition, subtraction, multiplication, and division expressions are equivalent or not		
C2.3	identify and use equivalent relationships for whole numbers up to 1000, in various contexts		

	Grade 3 Mathematics Expectations	Number of Questions	Percentage of Questions on the Assessment
C. Alge	ebra (continued)		
C3	Coding		
	solve problems and create computational representations of		
	mathematical situations using coding concepts and skills		
	Specific Expectations for Overall C3		
	Coding Skills		
	solve problems and create computational representations of	Continued	
C3.1	mathematical situations by writing and executing code, including code	from	Continued from
	that involves sequential, concurrent, and repeating events	previous	previous page
	read and alter existing code, including code that involves sequential,	-	previous page
C3.2	concurrent, and repeating events, and describe how changes to the code	page	
	affect the outcomes		
C4	Mathematical Modelling		
	apply the process of mathematical modelling to represent, analyse, make		
	predictions, and provide insight into real-life situations		
	There are no specific expectations for Overall C4.		
D. Data			
D1	Data Literacy		
	manage, analyse, and use data to make convincing arguments and		
	informed decisions, in various contexts drawn from real life		
	Specific Expectations for Overall D1		
	Data Collection and Organization		
	sort sets of data about people or things according to two and three		
D1.1	attributes, using tables and logic diagrams, including Venn, Carroll, and		
	tree diagrams, as appropriate		
	collect data through observations, experiments, and interviews to answer		
D1.2	questions of interest that focus on qualitative and quantitative data, and		
	organize the data using frequency tables		
	Data Visualization		
	display sets of data, using many-to-one correspondence, in pictographs		
D1.3	and bar graphs with proper sources, titles, and labels, and appropriate		
	scales	1	
	Data Analysis	-	8 200/
D4.4	determine the mean and identify the mode(s), if any, for various data sets		$\frac{6}{40}$ = 20%
D1.4	involving whole numbers, and explain what each of these measures	8	of the questions
<u> </u>	indicates about the data analyse different sets of data presented in various ways, including in	-	on the
	frequency tables and in graphs with different scales, by asking and		assessment
D1.5	answering questions about the data and drawing conclusions, then make		
	convincing arguments and informed decisions		
D2	Probability	1	
	describe the likelihood that events will happen, and use that information	1	
	to make predictions		
	Specific Expectations for Overall D2	1	
	Probability	1	
	use mathematical language, including the terms "impossible," "unlikely,"	1	
D0 1	"equally likely," "likely," and "certain," to describe the likelihood of events		
D2.1	happening, and use that likelihood to make predictions and informed		
	decision		
	make and test predictions about the likelihood that the mean and the	1	
D2.2	mode(s) of a data set will be the same for data collected from different		
	populations		

Grade 3 Mathematics Expectations			Percentage of Questions on the Assessment
E. Spat	ial Sense		
E1	Geometry and Spatial Reasoning		
	describe and represent shape, location, and movement by applying geometric properties and spatial relationships in order to navigate the world around them		
	Specific Expectations for Overall E1		
	Geometric Reasoning		
E1.1	sort, construct, and identify cubes, prisms, pyramids, cylinders, and cones by comparing their faces, edges, vertices, and angles		
E1.2	compose and decompose various structures, and identify the two- dimensional shapes and three-dimensional objects that these structures contain		
E1.3	identify congruent lengths, angles, and faces of three-dimensional objects by mentally and physically matching them, and determine if the objects are congruent		
E1.4	give and follow multistep instructions involving movement from one location to another, including distances and half- and quarter-turns		
E2	Measurement		
	compare, estimate, and determine measurements in various contexts		
	Specific Expectations for Overall E2		
	Length, Mass, and Capacity		
E2.1	use appropriate units of length to estimate, measure, and compare the perimeters of polygons and curved shapes, and construct polygons with a given perimeter	10	$\frac{10}{40} = 25\%$ of the questions
E2.2	explain the relationships between millimetres, centimetres, metres, and kilometres as metric units of length, and use benchmarks for these units to estimate lengths	10	on the assessment
E2.3	use non-standard units appropriately to estimate, measure, and compare capacity, and explain the effect that overfilling or underfilling, and gaps between units, have on accuracy		
E2.4	compare, estimate, and measure the mass of various objects, using a pan balance and non-standard units		
E2.5	use various units of different sizes to measure the same attribute of a given item, and demonstrate that even though using different-sized units produces a different count, the size of the attribute remains the same		
	Time		
E2.6	use analog and digital clocks and timers to tell time in hours, minutes, and seconds		
	Area		
E2.7	compare the areas of two-dimensional shapes by matching, covering, or decomposing and recomposing the shapes, and demonstrate that different can shapes have the same area		
E2.8	use appropriate non-standard units to measure area, and explain the effect that gaps, and overlaps have on accuracy		
E2.9	use square centimetres (cm²) and square metres (m²) to estimate, measure, and compare the areas of various two-dimensional shapes, including those with curved sides		

THE SCORING AND REPORTING OF STUDENT RESULTS

How Are the Questions in the Mathematics Component of the Primary-Division Assessment Scored?

All the questions in the mathematics component are scored automatically (computer-scored).

How Is a Student's Overall Level of Achievement Determined?

The Individual Student Report provides a level for each student. This information enables students, parents/guardians and teachers to plan for improvement. A student's outcome is assigned using a statistical procedure that takes into account the student's responses to all the operational questions on the assessment *and* the difficulty of each of these questions, regardless of how the student is routed. This procedure, known as Item Response Theory, assumes a continuum of ability in mathematics knowledge and skills (as reflected by the achievement levels 1 to 4), and locates the student's outcome along that continuum.

The Individual Student Report provides this outcome by indicating the overall level of achievement for reading, writing and mathematics for the student, and the student report shows where on the continuum the student's results are located for each.

Individual Student Reports are provided to school administrators to provide to parents/guardians in the fall of the school year following the assessment. The following is a sample Individual Student Report.



Assessment of Reading, Writing and Mathematics, Primary Division (Grades 1–3)

Individual Student Report, YEAR

SAMPLE NAME

Ontario Education Number: 000-000-000

School: Sample School

School Board: Sample Board

STUDENT RESULTS

EQAO's primary-division assessment tests the reading, writing and mathematics skills students are expected to have gained by the end of Grade 3.

	NE 1 Not enough evidence to be assigned a Level 1	Level 1 Much below the provincial standard	Level 2 Approaches the provincial standard	Level 3 Meets the provincial standard	Level 4 Surpasses the provincial standard
Reading:					
Writing:					
Mathematics:					

Each level represents a range of achievement. The position of the shows where, within the range, the student's result is located (from low to high).

These results are an objective indicator of the student's reading, writing and mathematics achievement in relation to the provincial standard. The provincial standard is Level 3, which corresponds to a B- to B+. The four achievement levels are the same levels teachers use in the classroom and on report cards to evaluate students' progress.

Students completed four language sessions and four mathematics stages. The students were asked to do the following:

Language—Reading

Read two types of texts (narrative and informational) and answer questions related to the expectations in the reading strand of the language curriculum.

Question types' included checklist, drag and drop, drop-down menu, single- and multiple-selection and open-response.

Language—Writing

Answer questions related to the expectations in the writing strand of the language curriculum. Question types" included drag and drop, drop-down menu, single-selection and open-response.

Mathematics

Answer questions related to the expectations in the strands of the mathematics curriculum. Question types* included ordering, drag and drop, and single- and multiple-selection.

*Note: The alternative version of the assessment did not include all the types of questions.

For a detailed description of the design of the assessment and how it aligns with the expectations in The Ontario Curriculum, please see the Assessment of Reading, Writing and Mathematics, Primary Division, Framework, available on the EQAO website at www.eqao.com.

EQAO conducts province-wide assessments at the primary, junior and secondary levels to measure student achievement against curriculum expectations. The data are widely used as an additional tool to guide improvements in education at the individual, school and provincial levels. For additional information and useful resources, visit www.eqao.com.

This report contains personal information that is protected under the Freedom of Information and Protection of Privacy Act.



Education Quality and Accountability Office Information Centre: 1-888-327-7377 (Ontario) or 416-916-0708 (outside Ontario) | e-mail | eqao.com © 2024 King's Printer for Ontario