Assessment of Reading, Writing and Mathematics, Junior Division (Grades 4–6), Framework

This framework provides a detailed description of the EQAO junior-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.

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- What Is Assessed?
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Assessment of Reading, Writing and Mathematics, Junior Division (Grades 4–6)

LANGUAGE COMPONENT

WHAT IS ASSESSED?

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

EQAO's junior-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</u> <u>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 junior-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 6.

Reading and Writing

Strand B: Foundations of Language

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

The junior-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 junior-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 junior-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 Junior-Division Assessment?

The language component of the junior-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.





Questionnaire Session: At the end of the junior-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 31 operational questions that count toward the student's final result. The following table provides information on the number of questions by type:

The J	inior-Division Assessment Language Component: Number of Questions by Type			
	Selected-Response Questions	Open-Response Questions	Number of Questions	
Operational Reading	16	2	18	
Operational Writing	12	1	13	
Field Test	2 to 13	1	3 to 14	
Total Number of Questions	30-41	4	34-45	

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	23	74%
Open-Response	8	26%
Total	31	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 Junior-Division Assessment?

The language component of the junior-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, five selected-response reading questions and one open-response question
- **Narrative Text:** a reading text, 11 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</u> <u>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 Junior-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 junior-division assessment focuses on the Grade 6 curriculum expectations, there may be questions from the curriculum from Grades 4 and 5.

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

EĮ.	Reading Component		
		Question Type	by Reading Text
	Grade 6 Expectations	Narrative Texts (650–700 words)	Informational Texts (300–350 words)
B. For	undations 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 Morphological Knowledge use generalized knowledge of the meanings of words and morphemes (i.e., bases, prefixes, and suffixes) to read and spell complex words with accuracy and automaticity	ng Morphological ags of words and ffixes) to read and spell aticity y of words, acquire and contexts, including morphological w words in context	1 selected- response question
B2.2	Vocabulary demonstrate an understanding of a variety of words, acquire and use explicitly taught vocabulary in various contexts, including other subject areas, and use generalized morphological knowledge to analyze and understand new words in context		
B2.3	Reading Fluency: Accuracy, Rate, and Prosody read a variety of texts fluently, with accuracy and appropriate pacing to support comprehension, and when reading aloud, adjust expression and intonation according to the purpose of reading		

	Reading Component (continued)			
		Question Type by Reading Text		
	Grade 6 Expectations	Narrative Texts (650–700 words)	Informational Texts (300–350 words)	
B. Fou	undations of Language			
B3	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 use their knowledge of sentence types and forms to construct sentences that communicate ideas effectively, including using and creating complex sentences with adjective or relative clauses to express relationships among ideas	Continued from	Continued from	
B3.2	Grammar demonstrate an understanding of the functions of parts of speech in sentences, including nouns that are gerunds, distinguishing and converting between active and passive voice, and use this knowledge to support comprehension and communicate meaning clearly	previous page	previous page	
B3.3	Capitalization and Punctuation use their understanding of the meaning and function of capitalization and punctuation to communicate meaning clearly and coherently, including the use of colons in formal letters and memo salutations and to indicate a new speaker in script dialogue, and commas after transitional words or phrases			

	Reading Component (continued)			
		Question Type	by Reading Text	
	Grade 6 Expectations	Narrative Texts (650–700 words)	Informational Texts (300–350 words)	
C. Co	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 analyze a variety of text forms and genres, including cultural text forms, and explain how their characteristics help communicate meaning			
C1.3	Text Patterns and Features analyze text patterns, such as problem-solution in a report, and text features, such as subheadings and pull-down menus, associated with various text forms, including cultural texts, 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 analyze and compare how images, graphics, and visual design create, communicate, and contribute to meaning in a variety of texts			
C1.5	Elements of Style identify various elements of style in texts, including voice, word choice, word patterns, and sentence structure, and analyze how each element helps create meaning and is appropriate for the text form and genre			
C1.6	Point of View identify the narrator's point of view, including first, second, or third person, in a variety of texts, providing evidence, and explain how using an alternative point of view would change 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 to make meaning through Indigenous Storywork about First Nations, Métis, and Inuit histories, cultures, relationships, communities, groups, nations, and lived experiences			

	Reading Component (continued)			
		Question Type	by Reading Text	
	Grade 6 Expectations	Narrative Texts (650–700 words)	Informational Texts (300–350 words)	
C. Co	nprehension: 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 identify and explain prior knowledge from various sources, including personal experiences and learning in other subject areas, that they can use to make connections and understand new texts			
C2.2	Prereading: Identifying the Purpose for Reading, Listening, and Viewing identify a variety of purposes for engaging with texts, select texts from diverse creators that are suitable for the purposes, and explain why the selections are appropriate			
C2.3	Monitoring of Understanding: Making and Confirming Predictions make predictions using background knowledge and textual information, pose questions to check whether their predictions were correct, and, if not, adjust their understanding	5 selected- response questions	3 selected- response questions	
C2.4	<i>Monitoring of Understanding: Ongoing Comprehension</i> <i>Check</i> <i>use strategies such as visualizing, reading ahead, asking</i> <i>questions, and consulting references and other texts or sources</i> <i>of information, to monitor and confirm their understanding of</i> <i>various texts</i>	1 open-response question	1 open-response question	
C2.5	Monitoring of Understanding: Making Connections explain how the ideas expressed in texts connect to their knowledges and lived experiences, the ideas in other texts, and the world around them			
C2.6	Summarizing: Identifying Relevant Information and Drawing Conclusions summarize and record the main idea and supporting details in various texts, and draw well-supported conclusions			
C2.7	Reflecting on Learning explain and compare how various strategies, such as visualizing, making predictions, summarizing, and connecting to their experiences, have helped them comprehend various texts, and set goals to improve their comprehension			

	Reading Component (continued)			
		Question Type	by Reading Text	
	Grade 6 Expectations	Narrative Texts (650–700 words)	Informational Texts (300–350 words)	
C. Co	mprehension: Understanding and Responding to Texts			
C3	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 Expectations for Overall C3			
C3.1	Literary Devices describe literary devices, including hyperbole and idioms, in a variety of texts, and explain how they help create meaning and are appropriate for the intended purpose and audience			
C3.2	Making Inferences make local and global inferences, using explicit and implicit evidence, to develop interpretations about various texts and to extend their understanding			
C3.3	Analyzing Texts analyze various texts, including literary and informational texts, by identifying main and supporting ideas, evaluating the quality of information and its relevance for a specific purpose, and formulating conclusions			
C3.4	Analyzing Cultural Elements of Texts analyze cultural elements that are represented in various texts, including values, rituals and ceremonies, architecture, art, and dance, by investigating the meanings of these elements, making connections to their lived experience and culture, and sharing their interpretations with others	Continued from previous page	Continued from previous page	
C3.5	Perspectives Within Texts explain explicit and implicit perspectives communicated in various texts, including narrative texts, provide any evidence that could suggest bias in these perspectives, and suggest ways to avoid any such bias			
C3.6	Analysis and Response explain how various topics, such as diversity, inclusion, and accessibility, are addressed in texts, analyze the insights or messages conveyed, and identify different positions presented			
C3.7	Indigenous Contexts assess the influence of historical periods, cultural experiences, and/or socio-political conditions and events on texts created by First Nations, Métis, and Inuit individuals, communities, groups, or nations, and how they relate to current lived experiences			
C3.8	Reflecting on Learning compare the critical thinking skills they used when analyzing and evaluating various texts, identify the skills that best supported their understanding, and explain why they were effective			

Reading Component Question Totals		
Narrative Texts (650–700 words)	Informational Texts (300–350 words)	
11 selected-response questions 1 open-response question	5 selected-response questions 1 open-response question	

n	Writing Component	
	Grade 6 Expectations	Question Types
Β. Fοι	Indations 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 Morphological Knowledge use generalized knowledge of the meanings of words and morphemes (i.e., bases, prefixes, and suffixes) to read and spell complex words with accuracy and automaticity	Selected- response questions
B2.2	Vocabulary demonstrate an understanding of a variety of words, acquire and use explicitly taught vocabulary in various contexts, including other subject areas, and use generalized morphological knowledge to analyze and understand new words in context	and open- response question
B2.3	Reading Fluency: Accuracy, Rate, and Prosody read a variety of texts fluently, with accuracy and appropriate pacing to support comprehension, and when reading aloud, adjust expression and intonation according to the purpose of reading	

Writing Component (continued)		
	Grade 6 Expectations	Question Types
B. For	undations of Language	
B3	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 use their knowledge of sentence types and forms to construct sentences that communicate ideas effectively, including using and creating complex sentences with adjective or relative clauses to express relationships among ideas	Selected- response questions
B3.2	Grammar demonstrate an understanding of the functions of parts of speech in sentences, including nouns that are gerunds, distinguishing and converting between active and passive voice, 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 and coherently, including the use of colons in formal letters and memo salutations and to indicate a new speaker in script dialogue, and commas after transitional words or phrases	

Writing Component (continued)		
	Grade 6 Expectations	Question Types
D. Co	nposition: 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 explain why the chosen text form, genre, and medium suit the purpose and audience, and how they will help communicate the intended meaning	
D1.2	Developing Ideas generate and develop ideas and details about various topics, such as topics related to diversity, equity, and inclusion and to other subject areas, using a variety of strategies, and drawing on various resources, including their own lived experiences	Selected- response questions and
D1.3	Research gather information and content relevant to a topic, using multiple textual sources; summarize the information; verify the reliability of sources; and record the creator and source of all content created by others	open- response question
D1.4	Organizing Content classify and sequence ideas and collected information, using appropriate strategies and tools, and identify and organize relevant content, taking into account the chosen text form, genre, and medium	
D1.5	Reflecting on Learning explain and compare how the strategies and tools used helped them develop ideas and organize content for texts of the chosen forms, genres, and media, and how they helped them improve as a text creator	

	Writing Component (continued)	
	Grade 6 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 complex texts of various forms and genres, including narrative, expository, and informational texts, using a variety of media, tools, and strategies	
D2.2	Printing, Handwriting, and Word Processing write in fluent cursive, and apply keyboarding skills with increasing fluency, automaticity, and proficiency to improve the accuracy and effect of texts	Selected-
D2.3	Voice establish a personal voice in their texts, using varied language and elements of style to express their thoughts, feelings, and opinions about a topic, and using a tone appropriate to the form and genre	questions and open- response
D2.4	Point of View and Perspective identify the point of view, perspectives, and bias conveyed in their texts, and explain how their message might be interpreted by audiences with different perspectives	question
D2.5	Revision make revisions to the content, elements of style, patterns, and features of draft texts, and add and delete sentences to improve clarity, focus, and coherence, <i>using various</i> <i>strategies and seeking and selectively using feedback</i>	
D2.6	Editing and Proofreading edit draft texts to improve accuracy and style, checking for errors in spelling, punctuation, grammar, and format; <i>edit digital texts using word-processing software,</i> <i>including spell- and grammar-checkers</i>	

	Writing Component (continued)			
	Grade 6 Expectations	Question Types		
D. Co	mposition: Expressing Ideas and Creating Texts			
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, selecting a variety of suitable techniques and tools, including digital design and production tools, to achieve the intended effect	response questions and		
D3.2	Publishing and Presenting Texts publish and present texts they have created, using selected media and tools, and analyze how their choices helped them communicate their intended message	open- response question		
D3.3	Reflecting on Learning compare how various strategies and tools helped them communicate their intended message when publishing and presenting texts, and suggest future steps for improvement 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 Junior-Division Assessment Scored?

The selected-response questions are scored automatically (computer-scored), while openresponse 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, Junior Division (Grades 4–6)

Individual Student Report, YEAR

SAMPLE NAME

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

STUDENT RESULTS

EQAO's junior-division assessment tests the reading, writing and mathematics skills students are expected to have gained by the end of Grade 6

	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 (Comprehension*):					
Writing (Composition*):					
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 (Comprehension*)

Read two types of texts (narrative and informational) and answer questions related to the expectations in the Foundations of checklist, drag and drop, drop-down menu, single- single-selection and open-response. and multiple-selection and open-response.

Language: Writing (Composition*)

Answer questions related to the expectations in the Foundations of Language and Composition strands of included drag and drop, drop-down menu, Mathematics

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

'Reading (Comprehension) and writing (Composition) assess applicable expectations in the following strands: B. Foundations of Language, C. Comprehension: Understanding and Responding to Texts and D. Composition: Expressing Ideas and Creating Texts.

"Note: The alternative version of the assessment was made up of single-selection and open-response questions for language and single-selection questions for mathematics

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, Junior 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 Junior-Division Assessment

	Generic Junior 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.



Code	Descriptor
В	Blank: nothing written, drawn (paper version only) or typed in the space provided
I	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.

22	Generic Junior 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, Junior Division (Grades 4–6)

MATHEMATICS COMPONENT

WHAT IS ASSESSED?

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

Students in Grade 6 learn the knowledge and skills that are defined in the expectations found in *The Ontario Curriculum, Grades 1–8: Mathematics* (2020). The Grade 6 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 junior-division assessment is a standards-referenced large-scale assessment based on the Ontario Grade 6 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 6

The following are highlights of student learning in Grade 6 from *The Ontario Curriculum*, listed by strand.

Number

- Number Sense
 - o Rational Numbers
 - o Fractions, Decimals, and Percents
- Operations
 - Properties and Relationships
 - Math Facts
 - o Mental Math
 - Addition and Subtraction
 - Multiplication and Division

Algebra

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

Data

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

Spatial Sense

- Geometric and Spatial Reasoning
 - Geometric Reasoning
 - Location and Movement
- Measurement
 - o The Metric System
 - o Angles
 - Area and Surface Area

Financial Literacy

- Money and Finances
 - o Money Concepts
 - o Financial Management
 - Consumer and Civic Awareness

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 6 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 6 mathematics curriculum, as the EQAO assessment is completed toward the end of Grade 6.

THE ASSESSMENT PROCESS AND DESIGN

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

The mathematics component of the junior-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 that will familiarize them with the assessment. During this introductory session, students have access to a sample test for both the language and mathematics components. The sample test for the mathematics component consists of two stages (12 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 (12 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 48 questions (44 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.

	Junior-Division Assessment Mathematics Component: Number of Questions		
Question Type		Number of Questions	
Operational		44	
Field Test		4	
Total Number of Questions		48	



Questionnaire Session: At the end of the junior-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 Junior-Division Assessment?

The mathematics component of the junior-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</u> <u>Testing for Large-Scale Assessments—EQAO</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</u> <u>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 Junior-Division Assessment?

The blueprint for the mathematics component of the junior-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.

Although the junior-division assessment focuses on the Grade 6 curriculum expectations, there may be questions that involve the curriculum from Grades 4 and 5.



	Grade 6 Mathematics Expectations	Number of Questions	Percentage of Questions on the Assessment
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		
	Rational Numbers		
B1.1	read and represent whole numbers up to and including one million, using appropriate tools and strategies, and describe various ways they are used in everyday life		$\frac{14}{11} = 32\%$
B1.2	read and represent integers, using a variety of tools and strategies, including horizontal and vertical number lines		
B1.3	compare and order integers, decimal numbers, and fractions, separately and in combination, in various contexts		
	Fractions, Decimals, and Percents		
B1.4	read, represent, compare, and order decimal numbers up to thousandths, in various contexts		
B1.5	round decimal numbers, both terminating and repeating, to the nearest tenth, hundredth, or whole number, as applicable, in various contexts		
B1.6	describe relationships and show equivalences among fractions and decimals numbers up to thousandths, using appropriate tools and drawings, in various contexts		
B2	Operations	14	44 of the questions
	use knowledge of numbers and operations to solve mathematical problems encountered in everyday life	14	on the assessment
	Specific Expectations for Overall B2		
	Properties and Relationships		
B2.1	use the properties of operations, and the relationships between operations, to solve problems involving whole numbers, decimal numbers, fractions, ratios, rates, and whole number percents, including those requiring multiple steps or multiple operations		
	Math Facts		
B2.2	understand the divisibility rules and use them to determine whether numbers are divisible by 2, 3, 4, 5, 6, 8, 9, and 10		
	Mental Math		
B2.3	use mental math strategies to calculate percents of whole numbers, including 1%, 5%, 10%, 15%, 25%, and 50%, and explain the strategies used		
	Addition and Subtraction		
B2.4	represent and solve problems involving the addition and subtraction of whole numbers and decimal numbers, using estimation and algorithms		
B2.5	add and subtract fractions with like and unlike denominators, using appropriate tools, in various contexts		

Mathematics Component of the Junior-Division Assessment Blueprint

	Grade 6 Mathematics Expectations	Number of Questions	Percentage of Questions on the Assessment
B. Num	ber (continued)		
	Multiplication and Division		
B2.6	represent composite numbers as a product of their prime factors, including through the use of factor trees		
B2.7	represent and solve problems involving the multiplication of three-digit whole numbers by decimal tenths, using algorithms		
B2.8	represent and solve problems involving the division of three- digit whole numbers by decimal tenths, using appropriate tools, strategies, and algorithms, and expressing remainders as appropriate	Continued from previous page	Continued from previous page
B2.9	multiply whole numbers by proper fractions, using appropriate tools and strategies		
B2.10	divide whole numbers by proper fractions, using appropriate tools and strategies		
B2.11	represent and solve problems involving the division of decimal numbers up to thousandths by whole numbers up to 10, using appropriate tools and strategies		
B2.12	solve problems involving ratios, including percents and rates, using appropriate tools and strategies		
C. Alge	bra		
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		
C1.1	identify and describe repeating, growing, and shrinking patterns, including patterns found in real-life contexts, and specify which growing patterns are linear		$\frac{9}{44}$ = 20% of the questions on the assessment
C1.2	create and translate repeating, growing, and shrinking patterns using various representations, including tables of values, graphs, and, for linear growing patterns, algebraic expressions and equations	9	
C1.3	determine pattern rules and use them to extend patterns, make and justify predictions, and identify missing elements in repeating, growing, and shrinking patterns, and use algebraic representations of the pattern rules to solve for unknown values in linear growing patterns		
C1.4	whole numbers and decimal numbers		

	Grade 6 Mathematics Expectations	Number of Questions	Percentage of Questions on the Assessment
C. Alge	ebra (continued)		
C2	Equations and Inequalities		
	demonstrate an understanding of variables, expressions,		
	equalities, and inequalities, and apply this understanding in		
	various contexts		
	Specific Expectations for Overall C2		
	Variables and Expressions		
C2.1	add monomials with a degree of 1 that involve whole numbers, using tools		
C2.2	evaluate algebraic expressions that involve whole numbers and decimal tenths		
	Equalities and Inequalities		
C2.3	solve equations that involve multiple terms and whole numbers in various contexts, and verify solutions		
C2.4	solve inequalities that involve two operations and whole		
	numbers up to 100, and verify and graph the solutions	Continued	O antinua 11
C3	Coding	from	Continued from
	solve problems and create computational representations of	previous	previous page
	mathematical situations using coding concepts and skills	page	
	Specific Expectations for Overall C3		
	Coding Skills		
C3.1	solve problems and create computational representations of mathematical situations by writing and executing efficient code, including code that involves conditional statements and other control structures		
C3.2	read and alter existing code, including code that involves conditional statements and other control structures, and describe how changes to the code affect the outcomes and the efficiency of the code		
C4	Mathematical Modelling	ļ	
	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		

Grade 6 Mathematics Expectations		Number of Questions	Percentage of Questions on the Assessment
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		
D1.1	describe the difference between discrete and continuous data, and provide examples of each		
D1.2	collect qualitative data and discrete and continuous quantitative data to answer questions of interest about a population, and organize the sets of data as appropriate, including using intervals		
	Data Visualization		
D1.3	select from among a variety of graphs, including histograms and broken-line graphs, the type of graph best suited to represent various sets of data; display the data in the graphs with proper sources, titles, and labels, and appropriate scales; and justify their choice of graphs		
D1.4	create an infographic about a data set, representing the data in appropriate ways, including in tables, histograms, and broken- line graphs, and incorporating any other relevant information that helps to tell a story about the data	8	$\frac{8}{44} = 18\%$
	Data Analysis		on the
D1.5	determine the range as a measure of spread and the measures of central tendency for various data sets, and use this information to compare two or more data sets		assessment
D1.6	analyse different sets of data presented in various ways, including in histograms and broken-line graphs and in misleading graphs, by asking and answering questions about the data, challenging preconceived notions, and drawing conclusions, then make convincing arguments and informed decisions		
D2	Probability		
	describe the likelihood that events will happen, and use that information to make predictions		
	Specific Expectations for Overall D2		
D2.1	use fractions, decimals, and percents to express the probability of events happening, represent this probability on a probability line, and use it to make predictions and informed decisions		
D2.2	determine and compare the theoretical and experimental probabilities of two independent events happening		

	Grade 6 Mathematics Expectations	Number of Questions	Percentage of Questions on the Assessment
E. Spa	atial 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	create lists of the geometric properties of various types of quadrilaterals, including the properties of the diagonals, rotational symmetry, and line symmetry		
E1.2	construct three-dimensional objects when given their top, front, and side views		
	Locomotion and Movement		
E1.3	plot and read coordinates in all four quadrants of a Cartesian plane, and describe the translations that move a point from one coordinate to another		
E1.4	describe and perform combinations of translations, reflections, and rotations up to 360 degrees on a grid, and predict the results of these transformations		
E2	Measurement		
	compare, estimate, and determine measurements in various contexts		$\frac{9}{44} = 20\%$
	Specific Expectations for Overall E2	9	of the questions
	The Metric System		on the
E2.1	measure length, area, mass, and capacity using the appropriate metric units, and solve problems that require converting smaller units to larger ones and vice versa		assessment
	Angles		
E2.2	use a protractor to measure and construct angles up to 360 degrees, and state the relationship between angles that are measured clockwise and those that are measured counterclockwise		
E2.3	use the properties of supplementary angles, complementary angles, opposite angles, and interior and exterior angles to solve for unknown angle measures		
	Area and Surface Area		
E2.4	determine the areas of trapezoids, rhombuses, kites, and composite polygons by decomposing them into shapes with known areas		
E2.5	create and use nets to demonstrate the relationship between the faces of prisms and pyramids and their surface areas		
E2.6	determine the surface areas of prisms and pyramids by calculating the areas of their two-dimensional faces and adding them together		

Grade 6 Mathematics Expectations		Number of Questions	Percentage of Questions on the Assessment
F. Fin	ancial Literacy		
F1	Money and Finances		
	demonstrate the knowledge and skills needed to make informed financial decisions		
	Specific Expectations for Overall F1		
	Money Concepts		
F1.1	describe the advantages and disadvantages of various methods of payment that can be used to purchase goods and services		
	Financial Management	1	4
F1.2	identify different types of financial goals, including earning and saving goals, and outline some key steps in achieving them	4	$\overline{44} = 9\%$ of the questions
F1.3	identify and describe various factors that may help or interfere with reaching financial goals		on the assessment
	Consumer and Civic Awareness		
F1.4	explain the concept of interest rates, and identify types of interest rates and fees associated with different accounts and loans offered by various banks and other financial institutions		
F1.5	describe trading, lending, borrowing, and donating as different ways to distribute financial and other resources among individuals and organizations		

THE SCORING AND REPORTING OF STUDENT RESULTS

How Are the Questions in the Mathematics Component of the Junior-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, Junior Division (Grades 4–6)

Individual Student Report, YEAR

SAMPLE NAME

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

STUDENT RESULTS

EQAO's junior-division assessment tests the reading, writing and mathematics skills students are expected to have gained by the end of Grade 6

	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 (Comprehension*):					
Writing (Composition*):					
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 (Comprehension*)

Read two types of texts (narrative and informational) and answer questions related to the expectations in the Foundations of Language and Comprehension strands of the language curriculum. Question types** included checklist, drag and drop, drop-down menu, single- single-selection and open-response. and multiple-selection and open-response.

Language: Writing (Composition*)

Answer questions related to the expectations in the Foundations of Language and Composition strands of the language curriculum. Question types** included drag and drop, drop-down menu,

Mathematics

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

*Reading (Comprehension) and writing (Composition) assess applicable expectations in the following strands: B. Foundations of Language, C. Comprehension: Understanding and Responding to Texts and D. Composition: Expressing Ideas and Creating Texts.

"Note: The alternative version of the assessment was made up of single-selection and open-response questions for language and single-selection questions for mathematics.

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, Junior 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.egao.com,

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



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