

# 201"-201#

# Elementary Mathematical Literacy Assessment

## **Information Guide**



Education Evaluation Services

#### **Table of Contents**

Introduction	
Overview of the Assessment	
Curriculum Links and Rationale	
Table of Specifications	
Distribution of Outcomes	
Assessment Structure and Components	
Administration of the Assessment	4
Security	
Role of the Principal	
Role of the School Assessment Coordinator	
Role of the Teacher Administering the Assessment	
Role of the Board Assessment Coordinator	
Eligibility	6
English Program	
French Immersion Program	
Students for whom English is an Additional Language	
International Students/Foreign Students/Exchange Students	
Students Being Schooled in Another Location	
Adaptations	7
Exemptions	Q
Individual Program Plan (IPP) in Mathematics	
Scoring and Reporting	
Appendix A: EMLA Overview	12
Appendix B: Key Messages	13
Appendix C: School Assessment Coordinator's Checklist	14
Appendix D: Teacher's Checklist	
Appendix E: Assessment Booklet Back Cover	18
Appendix F: Frequently Asked Questions	
Appendix G: Nova Scotia Assessment Development Model	23

#### Introduction

The purpose of this guide is to provide information about the Elementary Mathematical Literacy Assessment (EMLA). It has useful information for teachers as well as School Administrators, School Assessment Coordinators, and Board Assessment Coordinators. This document is available on the EMLA website (http:// plans.ednet.ns.ca/emla). This information guide is intended as a reference for you and does not have to be returned.

#### **Overview of the Assessment**

#### Purpose

The purpose of the EMLA is to:

- monitor the progress of individual students in meeting a representative number of outcomes of the *Atlantic Canada Mathematics Curriculum*: *Grades Primary*–6
- help build an accurate and detailed profile of a student's mathematical understanding
- inform instruction so that appropriate support can be provided to further assist students to strengthen their abilities

For the purposes of this assessment, mathematical literacy is best described in terms of what is expected of students. The mathematically literate student:

- uses and values mathematics
- demonstrates confidence and competence in his/her ability to do mathematics
- solves mathematical problems
- communicates mathematically
- reasons mathematically

#### **Administration Schedule**

The EMLA Administration Guide provides teachers with preparatory information, daily schedules, and assessment scripts. The assessment will be administered during the first hour-and-a-half on the mornings of May 23 and May 24, 2012. All grade 6 students in public schools in Nova Scotia will participate in the assessment, with the exception of students with a documented Individual Program Plan (IPP) in Mathematics. See page 9 of this guide for more information on eligibility and exemptions.

#### **Content and Marking**

Students will respond to a variety of assessment tasks representing the full range of topics in the curriculum. The assessment has been developed by elementary teachers representing all school boards in Nova Scotia and will be scored electronically. Student reports will be sent to schools and to parents/guardians.

#### **Curriculum Links and Rationale**

The EMLA is based on the *Atlantic Canada Mathematics Curriculum for Grades Primary*–6, which is organized into seven general curriculum outcomes (GCOs): Number, Operation, Patterns and Relationships, Measurement, Geometry, Data Management, and Probability. Within each GCO there are specific curriculum outcomes (SCOs) for each grade level. Questions will be distributed over three cognitive levels—knowledge and procedures, comprehension, application, and problem solving. The table of specifications gives the assessment components and weightings.

#### **Table of Specifications**

A table of specifications is derived from an analysis of the curriculum and provides a framework for the components and weightings of the assessment. During the development of the assessment, an advisory group of teachers determined the appropriate weightings for the assessment components based on the expectations of the curriculum.

#### **Distribution of Outcomes**

The assessment reflects these approximate percentages of grade level outcomes:

Grade Level Outcomes	Percentage
SCOs: Primary–Grade 3	10
SCOs: Grade 4–Grade 6	90

The assessment reflects these approximate percentages for general curriculum outcomes (GCOs):

Strand	Percen	<u>tage</u>	
GCO A (Number)	ך 20		
GCO B (Operation)	25 }	GCOs A, B, C ~55%	
GCO C (Patterns/Relationships)	10		
GCO D (Measurement)	ן 12	GCOs D, E ~30%	,
GCO E (Geometry)	18 ∫		
GCO F (Data Management)	ן 10	GCOs F, G ~15%	J
GCO G (Probability)	5 }		

The assessment reflects these approximate percentages for *levels of complexity*, or cognitive level, of questions:

Cognitive Level	Percentage
1 (Knowledge/Procedures)	30–35
2 (Comprehension)	40-50
<b>3</b> (Application/Problem Solving)	15-20

All questions will be selected response for 2011–2012 school year.

#### **Assessment Structure and Components**

The EMLA provides indicators of student understanding of mathematical ideas; student ability to use mathematical procedures; and student beliefs and attitudes about mathematics. Selected response (multiple choice) questions at three cognitive levels are used. Some assessment tasks are teacher led and other sections are completed independently by students.

**Part 1** of the assessment each day deals with a variety of skills and fact knowledge. These questions assess the expectations of the curriculum for students to perform procedures flexibly, and to demonstrate accurate and efficient use of computation, estimation and reasoning skills. Some of the curriculum focal points being assessed in this section are:

- **Mental Math:** activities done mentally (versus paper and pencil), dealing with basic facts for multiplication and division, and the mental manipulation and visualization of number, shape, and pattern
- **Number Sense**: multiple understandings of number meanings, relationships among numbers, and an understanding of our numeration system including place value concepts
- **Rounding and Estimation**: strategies used to predict amounts, computations and measurements and to check the reasonableness of answers
- **Quantitative Reasoning:** using the language and symbols for less than, greater than or equal to for comparing amounts
- **Paper and Pencil Computation**: whole number and decimal addition, subtraction, multiplication and division proficiency with facts and algorithms, assessed in a variety of formats

**Part 2** of the assessment each day deals with the conceptual knowledge the students are expected to have by the end of grade 6. They will have the opportunity to demonstrate and apply their understanding of the foundational mathematical ideas, operations and relationships they have been studying in the elementary mathematics program.

In addition, the assessment will provide teachers with information about their students' ability to engage successfully with questions at a variety of cognitive levels. These components are described below.

#### **Cognitive Levels of Questions**

This assessment requires a student to complete tasks that require fact and procedural knowledge, conceptual knowledge, as well as strategic reasoning. Level one questions may require recall of information, names, definitions, or the steps in a procedure. Level two questions require some degree of comprehension to answer correctly. Level three questions go beyond comprehension to higher order thinking skills, such as applications and problem solving.

#### Administration of the Assessment

#### Security

EMLA is a secure form. This means that all assessment materials must be returned to the Department of Education after student work is completed. The materials include the student booklets both used and unused, and teacher Administration Guides.

The Elementary Mathematical Literacy Assessment is a secure form; therefore:

- no part of the assessment, including student work, is to be copied electronically or by any other means
- teachers should not make use of any specific assessment items in their teaching
- there will be no copies of the assessment provided for teachers to keep
- every copy of the assessment sent to the school must be returned to the Department of Education
- non-grade 6 students in multi-grade classes will not participate in the assessment

#### **Role of the Principal**

The general role of the principal is to support and facilitate the administration of the assessment at the school level. This includes the following:

- Become familiar with the policies and administration procedures of the EMLA (see Appendices/EMLA website).
- Facilitate distribution of parent/guardians pamphlets.
- Be sure all staff involved in the assessment understand all of their responsibilities.
- Provide the necessary support to facilitate scheduling and any other logistical arrangements, including arranging alternate settings for some students, make-up sessions and the necessary proctors.
- Avoid interruptions to grade six classrooms during the assessment, e.g. announcements and bells.
- If possible, communicate a reminder to parents/guardians, perhaps through a newsletter, regarding the importance of students arriving on time on the assessment days. As well, remind parents/guardians to try to avoid scheduling out of school appointments on these days.
- Prepare for unforeseen disruptions and absences.
- Verify the security of all assessment materials throughout the assessment period.
- Verify the return of all assessment materials to the Department of Education by the specified date (May 25, 2012).
- Refer any questions regarding the EMLA to your Board Assessment Coordinator.

#### **Role of the School Assessment Coordinator**

The role of the School Assessment Coordinator is to receive information and materials related to the assessment and forward these to teachers. The school coordinator provides information as requested by the Department of Education, such as numbers of students and teachers who will require assessment materials, along with alternate formats, such as large print. The coordinator will serve as the point of contact with Department of Education staff. See Appendix C for detailed information and checklist.

The School Assessment Coordinator will plan with the teachers and principal all the steps required for the EMLA. This includes arranging room locations, ensuring a sufficient number of desks or tables, and distributing materials. The coordinator will verify that teachers have gathered and organized required materials: manipulatives in baggies (specified base–10 blocks and pattern blocks), 8 linking cubes (e.g. cube-a-links), a sufficient supply of pencils, erasers, and metric rulers for each grade 6 student.

#### **Role of the Teacher Administering the Assessment**

The role of the teacher is to administer the assessment using the guidelines and procedures needed to ensure consistency and fairness for all students. It is important for teachers to become familiar with the Administration Guide and the teacher scripts prior to the assessment. A detailed list of materials is provided in Appendix D and should be organized prior to assessment activities.

#### **Role of the Board Assessment Coordinator**

The role of the Board Assessment Coordinator is to have overall knowledge of all provincial assessments and examinations taking place within the board. The coordinator responds to board and school level questions regarding provincial assessments and is the liaison with the Department of Education, Evaluation Services Division.

#### Eligibility

The back cover of the assessment booklet is for recording information about students who participated in the assessment with adaptations and students who did not participate in any part of the assessment. **The back cover of all other assessment booklets will remain blank.** 

The following students are eligible to participate in the EMLA:

- **English Program:** All English program students are to write the assessment with the exception of those students who have a documented IPP in mathematics.
- **French Immersion Program:** All French Immersion students are to write the assessment with the exception of those students who have a documented IPP in mathematics. French Immersion students write a translated version of the English assessment.
- Students for whom English is an Additional Language: If the student is considered an English Second Language student, the student is expected to participate in the assessment. Though it is expected that the English Second Language student participate in the assessment, if the student's English language skills are not sufficiently developed, then a school-based decision involving, at minimum, the student's parent or guardian, the student's teacher, and an administrator at the school may be made to *exempt* the student from participating in the assessment. This must be recorded on the back cover of the Student Assessment Booklet. See Appendix E for sample booklet back cover.
- International Students/Foreign Students/Exchange Students: International, foreign or exchange students who are temporarily enrolled in a school are expected to participate in the assessment. If the student's English language skills are not sufficiently developed, then a school-based decision involving, at minimum, the student's parent or guardian, the student's teacher, and an administrator at the school may be made to *exempt* the student from participating in the assessment. This must be recorded on the back cover of the Student Assessment Booklet. See Appendix E for sample booklet back cover.
- Students Being Schooled in Another Location: If specific accommodation has been made for a student to be at home rather than in the school setting due to <u>disciplinary factors</u> such as suspension, provision should be made for that student to participate in the assessment. School administrators should schedule and provide a setting for that student to do the assessment. Students who are <u>home schooled</u> or <u>attending an alternate school</u> are to participate in the assessment provided they are following the Public School Program (PSP). The assessment booklets will be sent to the location where the student is registered.

#### Adaptations

Adaptations used to support the student during instruction should be provided during the assessment if such adaptations do not compromise or alter the validity of the assessment. It is important that the results of the Elementary Mathematical Literacy Assessment accurately reflect the independent abilities of students. Adaptations made available to the student during the EMLA **must be in place as of May 2012** and **must be documented** in the student's cumulative record file (Policy 2.2 of the *Special Education Policy Manual*, Department of Education). A photocopy of that documentation must be inserted in the front of the student's assessment booklet when the booklet is returned. See Appendix E for sample booklet back.

Adaptations are strategies and/or resources to accommodate the learning needs of an individual student. They are planned, implemented, and evaluated to enable the student to achieve prescribed curriculum outcomes. Adaptations, strategies, and/or resources are documented in the student's cumulative record folder. Further information about adaptations may be found in *Supporting Student Success: Resource Programming and Services*, Nova Scotia Department of Education.

Please refer to Section 1 of the back cover of the assessment booklet for the following documented adaptations and fill in the appropriate circle:

#### • Additional time

Fill in this circle for a student for whom "additional time" is a documented adaptation, *if* that student was given the additional time during the assessment as per the adaptation. Note: this does not refer to the additional 15 minutes per day that, at the teacher's discretion, may be given to an individual or the entire class; "additional time" refers to a documented adaptation that is given to an individual student beyond these 15 minutes (25 minutes for immersion students).

#### • Verbatim scribing

Fill in this circle for a student with a visual or physical impairment, injury, or learning disability, and for whom "verbatim scribing" is a documented adaptation, if that student had a scribe (note taker) made available to him or her during the assessment. If a scribe is required, the scribe writes exactly what the student dictates. Scribes do not edit or proof-read student responses, nor do they advise, suggest, or imply that changes are required. The **name of the scribe** as well as their position must be specified on the lines provided.

#### • Alternate setting

Fill in this circle for a student for whom "alternate setting" is a documented adaptation, if that student completed any part of the assessment in a setting different from that of the other students in the class. Ideally, the assessment should be proctored by the student's mathematics teacher, even in the alternate setting. However, if this is not possible, and someone other than the student's teacher proctors the assessment for the student in the alternate setting, then this proctor must know the parameters of the assessment, and the integrity of the assessment must be maintained. The alternate location must be specified on the line provided. The name and role of the proctor must also be noted on the photocopy of the documented adaptation that is inserted to the student's assessment booklet when the booklet is returned.

#### • Alternate format

Fill in this circle for a student for whom "alternate format" is a documented adaptation, if that student was provided with an alternate format of the assessment. Alternate format includes large-print, Braille, and black-and-white versions of the assessment. The type of alternate format must be specified on the line provided.

#### • Reading to student

Fill in this circle for a student for whom "reading to student" is a documented adaptation, if that student was read to for most or all of the assessment. The questions are to be read verbatim, and are not to be interpreted, summarized, or paraphrased. No explanations are permitted. The **name of the reader** as well as their position must be specified on the lines provided.

#### • Assistive technology

Fill in this circle for a student with a visual or physical impairment, injury, or learning disability, for whom "assistive technology" is a documented adaptation, if that student was provided with assistive technology during the assessment. In this case, the student may use assistive technology if it does not compromise the validity of the assessment. Any assistive technology used must be specified on the lines provided. Please contact the Department of Education if you are unsure if the type of assistive technology may invalidate the results of the assessment.

#### • Other

Fill in this circle for a student for whom there is a documented adaptation, not listed on the back cover of the assessment booklet, if that adaptation was provided to the student during the assessment. The adaptation should be specified on the lines provided, and a photocopy of the documentation should be provided in the same manner as with the other listed adaptations.

Please note: the use of cognitive credit cards during provincial math assessments is not permitted and would compromise the validity of the math assessments for our students.

The Department of Education may contact the school for further clarification regarding the use of certain adaptations. Additional information on adaptations and the provincial assessments is available online at <a href="http://plans.ednet.ns.ca/files/PLANS/PLANS\_Adaptations.pdf">http://plans.ednet.ns.ca/files/PLANS/PLANS\_Adaptations.pdf</a>.

#### Exemptions

If a student did not participate in the assessment, please fill in the appropriate bubble. The following information clarifies which students qualify for an exemption.

Refer to the "Student did not participate in any part of the assessment" section on the back cover of the student assessment booklet for the following exemptions:

#### • Individual Program Plan (IPP) in Mathematics

Fill in this circle if the student has an Individual Program Plan in Mathematics in place as of **May, 2012**. The student is *ineligible* to participate in the assessment. The entire booklet for those students must be returned to the Department of Education with documentation attached, i.e., a photocopy of the front page of the IPP. Insert the documentation to the front cover.

#### • Bereavement

With approval from the principal, fill in this circle for a student who, due to a significant loss, was not able to participate in the assessment during May 23–24, nor during the make-up period of May 24–May 25. Make-up period during the afternoon of May 24<sup>th</sup> and all day May 25<sup>th</sup>.

#### • Long-term illness

Fill in this circle for a student who, due to a long-term illness, was not able to write the assessment during May 23–May 24, nor during the make-up period of May 24–May 25. A student absent for part of the assessment due to illness does not receive a "long term illness" exemption. The student should complete the assessment when he or she returns.

#### • Student is not enrolled in Grade 6 at this school

#### • Other

Fill in this circle for a student who, due to some other circumstance not listed above, was not able to write the assessment during May 23–24, nor during the make-up period of May 24–May 25. The nature of the circumstance must be specified, i.e., ESL/International student (only if English language skills are insufficient).

#### **Scoring and Reporting**

The assessment was developed by elementary teachers representing all school boards in Nova Scotia and will be scored electronically. This process is facilitated by the Evaluation Services Division of the Department of Education. There will be individual student reports for parents/guardians and a detailed report for teachers and schools. Board and provincial results will also be reported. Student results will be reported according to the categories/expectations aligned to the curriculum. Individual student reports will be sent to schools, and then reports distributed to parents/guardians. Certain adaptations may result in a report of insufficient evidence and will be decided on a case by case basis.

#### **Requests for Re-scoring**

- A request for the re-scoring of a provincial assessment booklet is to be made to the school principal by a parent/guardian of the student within the timeframe given in the accompanying timeline on the next page.
- The principal will explain to the person making the request, in person or by telephone conversation, that the student booklet will not be made available for viewing. The principal will explain the reasoning for this: that the assessment is a secured assessment instrument, and that there is no evidence on the student paper itself of how the assessment was scored. The principal will further convey to the person(s) requesting the re-scoring information pertaining to:
  - the tracking of the assessment from the point of student writing to the receipt of the assessment report by the school;
  - the procedures used in the scoring of the assessment booklet to ensure reliable, accurate and fair scoring of student work;
  - the outcome of the re-scoring request (that being the determination of the outcome of the rescoring) will be final and the results will replace those of the original scoring of the assessment booklet.
- The principal will then have the person requesting the re-scoring confirm their request for and their acceptance of the outcomes of the re-scoring by their signing in the required space the Request for Re-scoring form. The principal will complete the Request for Re-scoring form with all requisite information.
- The principal will forward the completed Request for Re-scoring forms to the Board Assessment Coordinator according to the timeframe given in the accompanying timeline for this assessment (see next page).
- The Board Assessment Coordinator will forward all requests from his/her board for this assessment to the appropriate coordinator in Evaluation Services according to the timeframe given in the accompanying table for this assessment.
- An expert panel of three teachers will re-score the assessment. The score determined by this expert panel will be final even if the result is lower than the original score.
- Evaluation Services will return to the school principal (by email attachment, copied to the BAC) the results of the re-scoring of the assessment according to the timeframe outlined. (page 11)
- The school principal will convey to the person who made the request the results of the re-scoring of the assessment booklet according to the timeframe for this assessment.
- The school principal will ensure that the student's cumulative record folder is updated with the new assessment report (in the case of a provincial assessment). This will be accomplished according to the timeframe given in the accompanying table for this assessment.
- Evaluation Services will update the master data file with any results that differ from the original results. However, data files that have previously been distributed to boards and data files uploaded to dataPLANS will not be altered.

#### **Re-scoring Requests Schedule of Dates (tentative)**

Parent/guardian contacts Principal to request a re-score - no later than 4 weeks from the date the individual student results are released

Principal forwards parent re-score request to Board Assessment Coordinator - no later than 6 weeks from the date the individual student results are released

Board Assessment Coordinator forwards parent request to Department of Education - no later than 7 weeks from the date the individual student results are released

Department of Education returns the re-score results to the Principal - no later than 9 weeks from the date the individual student results are released

Principal conveys the re-score results to the parent/guardian - no later than 10 weeks from the date the individual student results are released

Principal will update the student's Cumulative Records File - no later than 10 weeks from the date the individual student results are released

Note: The specific dates for re-scoring requests will be provided to principals when the individual student assessment results are posted to the Student Records website.

#### Appendix A: EMLA Overview

#### Purpose

The Elementary Mathematical Literacy Assessment (EMLA) provides for a consistent province-wide mathematical assessment for the purpose of reporting on student achievement. The assessment gathers information about and reports on individual student learning in relation to the outcomes of the *Atlantic Canada Mathematics Curriculum*: *Grades Primary*–6. The assessment generates information for classroom teachers to develop strategies to further assist their students to become mathematically literate. Finally, the results of the assessment assist educators to evaluate the effectiveness of our educational system and to plan for improvement.

#### **Participants**

Grade 6 students in public schools in Nova Scotia participate in the assessment. There are two versions of the EMLA; an English version, translated for French Immersion students, and a French First Language (CSAP) version. Students with an Individual Program Plan (IPP) in Mathematics do not participate in the assessment. Individual student reports are sent to schools and then distributed to parents/guardians.

#### Background

Between 2001 and 2004, the Department of Education conducted program assessments in elementary and junior high mathematics. The findings of these assessments led to a province-wide mathematics strategy to ensure the delivery of a coherent program from grades P–12. It was also determined that a provincial individual student assessment be initiated at the elementary level to help teachers support their students.

The EMLA, as with other provincial assessments, is developed by teachers representing all school boards in Nova Scotia. The Evaluation Services Division of the Nova Scotia Department of Education facilitates the assessment processes outlined in the Nova Scotia Assessment Development Model.

#### **Description of Assessment**

Students respond to a variety of assessment tasks representing the outcomes of the mathematics curriculum for grades primary to six. The assessment tasks include mental math, computation, and problem solving. The assessment is administered to students by their teachers for up to 1.5 hours each day over two days in May. The EMLA is an indicator of student abilities in mathematics. The results are not used to determine student promotion to grade seven. In 2012, the EMLA is scheduled for administration on May 23 and 24.

#### **Supporting Resources**

This assessment is part of the Program of Learning Assessment of Nova Scotia (PLANS). Additional information can be found on the PLANS website (http://plans.ednet.ns.ca). Teachers receive assessment support materials prior to the assessment. Assessment samplers and general comments about what was learned from the field tests and program assessments can be found at <a href="http://plans.ednet.ns.ca/emla">http://plans.ednet.ns.ca/emla</a>

#### **Contact Information**

For further information please contact your board's assessment coordinator.

#### **Appendix B: Key Messages**

The Elementary Mathematical Literacy Assessment (EMLA) provides for a consistent province-wide assessment for the purpose of reporting on student achievement.

- The assessment gathers information about, and reports on, individual student learning in relation to the outcomes of the *Atlantic Canada Mathematics Curriculum: Grades Primary*–6. It provides reliable information to parents/guardians and teachers about student achievement of the required learning outcomes.
- The assessment generates information for classroom teachers to develop strategies to further assist their students to become mathematically literate. The results of the assessment assist educators to evaluate the effectiveness of our educational system and to plan for improvement.
- Information from multiple sources of assessment evidence should be used when making judgments and decisions in student evaluation.

The student results may be used, in conjunction with other assessment information, for a range of purposes. Examples of these purposes are outlined below:

- Provide evidence of student understanding of mathematical ideas; student ability to use mathematical procedures; and student beliefs and attitudes about mathematics.
- Help build an accurate and detailed profile of a student's mathematical understanding.
- Help to plan learning experiences and instruction for students that support and challenge their mathematical understanding.
- It should be remembered that while mathematical skills are developed in the school, they are also developed in the home, in the community, and in other areas of life, and are influenced by many factors. The results of the Elementary Mathematical Literacy Assessment, therefore, should not be used to rank or compare schools.
- Provincial assessments such as EMLA, treat all students the same and fairly. Provincial assessments afford all students the same opportunities to demonstrate what they know and are able to do independently. These early indicators show where students need to be better prepared for further educational endeavours. Provincial assessments help address many important questions about how our students are doing, how our system is performing, and what is needed for improvement.

#### **Appendix C: School Assessment Coordinator's Checklist**

#### 2011–2012 Elementary Mathematical Literacy Assessment (EMLA) School Assessment Coordinator's Checklist

Thank you for taking on the responsibility to ensure that this individual student assessment is successful. You will be directly supporting the classroom teacher(s) administering the assessment. We have provided this checklist to help make the assessment run smoothly for you.

#### **Before the Assessment**

- □ Ensure the packing slip accurately reflects what is in the package. Make sure you have enough materials for each teacher to administer the assessment and enough student booklets for every grade 6 student.
- □ You have received a box of EMLA materials containing:
  - Information Guides and Teacher Checklists: Distribute one copy each of the Information Guide and Teacher Checklist to each grade 6 teacher <u>immediately</u>. As School Assessment Coordinator, you and the principal should also have, and be familiar with, the Information Guide.
  - **Practice Assessment (Practice Form)**: Distribute sufficient copies of the practice assessment for each grade 6 teacher <u>immediately</u>. Ensure the practice assessment is administered no later than the week of May 14.
  - **Parent Information Pamphlets**: Ensure the parent/guardian pamphlets are given to the teachers for <u>immediate</u> distribution to their students.
- □ Your package also contains these assessment materials *to be kept secure* until the day before the assessment:
  - Student Assessment Booklets (personalized and non-personalized)
  - Administration Guides
- □ Keep the assessment materials <u>secure</u> until the assessment dates.
  - Do not give the assessment materials to the grade 6 teachers or allow them to preview them at this time.
    - Do not exchange student materials with other schools.
- □ Keep the packing slip to check it when returning materials to the Department of Education. Ensure that you return every student booklet that you received (including blanks), as the EMLA is a secure assessment.
- □ You have received additional, non-personalized, assessment booklets to be used for new students /non-registered students who have enrolled in your school prior to the assessment date. Use these booklets for such students, rather than unused personalized booklets.
- □ Compare the Department of Education's Student List, enclosed in the assessment package, against the class lists from your school.
  - Update the Student List, indicating any students who are not enrolled in grade 6 in your school and adding new students. For each new student, give the student's full legal name, his or her provincial identification number, sex, and date of birth.
  - Return the updated Student List with the other materials after the assessment so that we may account for every student.
  - Sort the assessment materials by class prior to the assessment and maintain the security of the materials before and after the assessment.
- □ Verify that teachers have gathered and organized required materials: manipulatives in baggies (specified base-10 blocks and pattern blocks), pencils, erasers, and metric rulers for each grade 6 student.

#### Administration of the Assessment

- □ Meet with the grade 6 teachers, <u>before school</u>, Tuesday, May 22 and give each of them their set of assessment booklets and the Administration Guide.
  - They will administer the assessment May 23 and May 24.
  - Do not give the assessment materials to the grade 6 teachers prior to May 22.

#### After the Assessment

- □ Ensure the information on the Department of Education Student List, accounting for every grade 6 student in the school, is updated. This information is needed to ensure that no student is overlooked.
- □ Ensure that there is a student booklet for every grade 6 student.
- □ Ensure that the teacher(s) have filled out the back cover of the student booklet for all students with adaptations and for exempted students, indicating why the student did not write the assessment.
- □ Ensure that the copy of the documentation from the cumulative record file is inserted to the front cover of the booklets for all students receiving adaptations and for all students with a Mathematics IPP.
- □ Retain all materials at the school until Friday, May 25, to provide new students or students who were absent on one or more of the assessment dates, with the opportunity to complete the unfinished parts of the assessment.
- By end of day Friday, May 25, package the assessment materials listed below (consult the Packing Slip that you received to ensure the same number of booklets are returned as were received), then fill out the Quality Control Declaration.
- Return these materials to the Department of Education, using the pre-paid Priority Courier slip. Fill in only the following information: the estimated weight of the package, return address, and signature. Take the package to the nearest Canada Post location or phone the toll-free number 1–888–550–6333 to arrange for the box to be picked up by Canada Post. Retain your copy of the courier slip in case the package is not delivered and it is necessary to trace the package.

#### Items to Return to the Department of Education (On or before May 25)

- □ all completed student booklets
- □ all unused personalized student booklets, with the information on the back cover completed
- □ all unused, non-personalized student booklets
- D 2011–2012 Elementary Mathematical Literacy Assessment: Administration Guides
- Department of Education Student List, which has been updated at the school
- □ Quality Control Declaration

#### Items to Keep at the School

- □ 2011–2012 Elementary Mathematical Literacy Assessment: Information Guides
- □ 2011–2012 Elementary Mathematical Literacy Assessment: Teacher's Checklist
- □ 2011–2012 Elementary Mathematical Literacy Assessment: School Assessment Coordinator's Checklist
- □ all practice assessment materials

Thank you for taking the time to properly oversee the administration of this important assessment and for returning all requested materials to us. If you have any questions or concerns about any of the above, please do not hesitate to contact Evaluation Services at (902) 424–7746.

#### Appendix D: Teacher's Checklist

#### 2011–2012 Elementary Mathematical Literacy Assessment (EMLA) Teacher's Checklist

Thank you for taking on the responsibility to ensure that this individual student assessment is successful. We have provided this checklist to help make the assessment run smoothly for you.

Please note:

- This year's assessment will be administered over two days, Wednesday, May 23–Thursday, May 24.
- Students receiving adaptations during the assessment must have a photocopy of the adaptation page from their Cumulative Record File inserted to their booklets when the booklets are returned to the Department of Education. Adaptations must be in place as of May 2012.
- Students with an IPP in Mathematics in place as of May 2012 will not participate in the assessment. The entire booklet for those students must be returned to the Department of Education with documentation inserted in booklet(s), i.e., a photocopy of the front page of the IPP and the math section of the IPP.

The assessment is a secure form:

- No part of the assessment, including student work, is to be copied by any means.
- Teachers should not make use of any specific assessment items in their teaching.
- There will be no copies of the assessment provided for the teacher's use.
- Every copy of the assessment <u>must</u> be returned to the Department of Education.

#### Practice Session (no later than the week of May 14)

- □ Students should participate in a practice session at a time convenient to you.
- □ Use the practice version to familiarize your students with the procedures for answering questions on the assessment. This practice form is intended for classroom use only and not intended to be sent home or used as homework.
- □ Take the time to review your behavioural expectations with students.
- □ Teachers should ensure that the assessment is approached as routinely as possible and not as a major event. A positive, relaxed attitude will help your students perform well. Assure students that the purpose of the assessment is to provide information that helps teachers to plan lessons that are just right for each of their students.

#### **Before the Assessment**

- □ Become familiar with the Information Guide.
- □ Distribute the Parent/guardian Information pamphlets.
- □ Gather and organize required materials: manipulatives in baggies (base–10 blocks: 3 flats, 15 rods, 20 small cubes; pattern blocks: 1 yellow hexagon, 1 red trapezoid, 5 green triangles), pencils, erasers, and metric rulers for each grade 6 student.
- □ Prepare the classroom environment. Cover/remove math materials on walls and desks.
- □ Be comfortable with the administration procedures prior to the assessment. The EMLA website (http://plans.ednet.ns.ca/emla) contains documentation related to the assessment.

#### **During the Assessment**

- □ Use a blank booklet for students not receiving a personalized booklet. Fill in the student information on the front cover. **Do not use a booklet personalized for another student.**
- □ Arrange the seating of students so they can have privacy when participating in the assessment.
- □ Remind students not to scribble or make unnecessary marks on the booklet.
- □ This assessment is completed over two days. Students are not permitted to revisit a previous activity on a subsequent day or work ahead in their booklets. Please ensure that your students work only in the section of their booklet assigned for each day.
- □ If necessary, students may be given up to 15 minutes more than the allotted time to complete each day's tasks. This additional 15 minutes is not considered an adaptation, and should not be documented; French immersion students may have up to 25 minutes more than the allotted time if required.
- □ Collect and secure all assessment materials at the end of each day.

#### After the Assessment

- □ Arrange make up sessions for students who were absent for parts of the assessment. Make-up sessions must be completed by Friday, May 25.
- □ Fill in the back cover of the student booklet for the following students:
  - Section 1: Students who participated in the assessments with adaptations. Include documentation. See Adaptations section in the Information Guide.
  - Section 2: Students who did not participate in any part of the assessment. See Exemptions section in the Information Guide.
- □ Give all student booklets and administration materials, including unused booklets to the School Assessment Coordinator *on or before May 25*.

Thank you for taking the time to properly oversee the administration of this important assessment, for keeping the assessment secure and for returning all requested materials.

#### FOR TEACHER USE ONLY

After the assessment, please complete this page for the following students:

- 1. Students who participated in the assessment with documented adaptations
- 2. Students who did not participate in any part of the assessment

#### Please fill in all applicable circles completely (i.e., •).

Documented	adaptations that were	e used during th	e assessment (insert documer	ntation)
O Additiona	l time	0	Reading to student	
O Verbatim	scribing		Name of reader	<u>n Carlon Carlon Carlo</u> r
Name of	scribe	CHENCHEN M	Position	
Position_				
O Alternate	setting (please specify)	0	Calculator, fact tables, other ca (Allowed for <u>Part 2</u> only.)	alculation aids
		0	Other (please specify)	
O Alternate	format (please specify)	0		
<ol> <li>Student of IPP in Ma</li> <li>Bereavent</li> <li>Long-term</li> </ol>	did not participate in any thematics nent n illness	Part of the asse	Student is not enrolled in grade Other (please specify)	e) 6 at this schoo
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#### **Appendix F: Frequently Asked Questions**

#### 1. How can I help my students prepare for EMLA?

No special study is needed. Assessment items are designed to reflect classroom instruction and learning activities. It provides students with an opportunity to demonstrate their performance on expected learning outcomes independently. Teachers should ensure that the assessment is approached as routinely as possible and not as a major event. A positive, relaxed attitude will help your students perform well and reduce anxiety. Follow *The Atlantic Canada Mathematics Curriculum Guide: Grades Primary–6*. The assessment is aligned with the written curriculum and all the questions were generated from that document. Know what resources are available and don't hesitate to ask questions. Get support from your math leaders and/or math mentors. Refer to the website: <u>http:// plans.ednet.ns.ca/emla</u> for many helpful documents and resources.

#### 2. By early May I have not covered all of the outcomes for the year. What should I do?

Adhering to your yearly plan and time lines will help ensure that all strands and outcomes have been addressed. Remember that the assessment is based on outcomes from the previous grade levels, not just grade three. Students have prior experience to help them.

#### 3. How can I help my students who have difficulty with reading?

During the assessment, teachers can quietly read words or questions to individual students but not explain meaning. During instruction, greater emphasis on math vocabulary, in both oral and written form, will help with the specialized language demands in mathematics.

#### 4. What if some concepts have not been reviewed for several months?

To help with long term retention, assign and assess tasks that integrate a variety of concepts. Include in your classroom assessment and instruction, questions other than those dealing with the current topic of study. Take every opportunity to connect previously studied concepts with current concepts. Good opportunities for this are daily mental math and homework assignments.

#### 5. Will this assessment take up valuable class time?

The assessment will be written the first hour-and-a-half in the morning over two days. This approximates the amount of time given to math instruction over that period. It will closely model some of the typical activities students participate in and will revisit important outcomes and concepts. It is hoped that engaging in the assessment will foster achievement, not just measure it.

#### 6. What about a child who normally performs well in class but does poorly on the assessment?

This assessment is one data source of many but an important indicator of what a student can do independently on a common provincial assessment. The information provided is meant to further inform and focus instruction. It will profile student strengths based on what a child is expected to know and be able to do by the end of grade 6, as outlined in the curriculum document. If you believe a child underperforms or achieves beyond your expectation, you may wish to probe further. If a student's written response does not reflect what the student knows, it may mean that the student needs more instruction in how to explain his/her mathematical thinking and reasoning both orally and in writing.

#### 7. Why grade six? Why Mathematics and Literacy?

We need to detect problems early so interventions can be taken and students provided with focussed and targeted support to strengthen their abilities in both of these content areas.

#### 8. Will we just be "teaching to the test?"

That is not our intention. The Elementary Mathematical Literacy Assessment is a broad based assessment, congruent with the curriculum. Using good questions at a variety of levels and various questioning techniques that model some of the assessment tasks, will support your instructional program and implementation of the curriculum outcomes.

#### 9. Why must the assessment remain secure?

Making this, and subsequent years' assessments secure forms, will allow us to equate forms year over year and will allow us to perform longitudinal studies of student performance. For example, if we were to embed questions from the 2007 assessment in the 2009 assessment, we would be able to make a genuine comparison of student performance for those two years, independent of the overall difficulty of the 2007 and 2009 assessments. While we do our best to make sure that the forms are comparable year over year, imbedding "baseline" pieces ensures that at least part of the assessment is absolutely comparable.

# 10. What about shared teaching loads—where another teacher is the mathematics teacher? What about multiple classes—but just one mathematics teacher? Who should administer the assessment to the other classes?

Site-based decisions will need to be made to facilitate this. All grade 6 students should be writing the assessment at the same time. Therefore, the mathematics teacher should circulate between the classes writing the assessment in order to oversee the administration of the assessment and to answer any questions. This procedure ensures consistency and uniformity across classes and schools.

### 11. What about combined (multi-grade) classes? Should my non-grade 6 students write the assessment?

No. Those students will have to be accommodated elsewhere during the assessment.

#### 12. Will French immersion students write this assessment?

Yes.

#### 13. Won't they be at a disadvantage?

No, they will not be at a disadvantage. Immersion students write the assessment translated in French. A group of immersion teachers will review the translation before printing. An English copy is sent to the classroom teacher in case a student has difficulty reading a question. The teacher can then show the English copy to the student so he or she can read it in English. More time will be given for immersion students to complete the assessment.

#### 14. What do I do if one of my students is absent for one day of the assessment?

Students are expected to write the part of the assessment taking place on the day they return. Students are expected to write the parts of the assessment they missed during the make-up time provided. The make-up dates are May 24May 25.

#### 15. What do I do if one of my students is absent for the entire week of the assessment?

The student is expected to write the assessment in the make-up period as specified. It is recommended that you consult with your school's administration in order to arrange for the student to write the assessment. The make-up dates are May 24–May 25.

#### 16. What if the teacher is absent during the assessment?

The substitute teacher should be given the Teacher's Checklist, the Information Guide, and the Administration Guide in advance to become acquainted with the procedures for the various sections of the assessment. As well, it would be beneficial if the substitute teacher could confer with another teacher who has previously administered the assessment. Other site-based arrangements may be made by school personnel for the administration of the EMLA.

#### 17. What is the purpose of the practice session?

You should use the practice session to prepare students for filling out their responses. Students will feel happier and more relaxed once they know what to expect. You may let the students know that the assessment activities will be much like what they do in their everyday work. Your positive comments about the assessment will encourage students to do their best and will set a supportive environment. Teachers should ensure that the assessment is approached as routinely as possible and not as a major event. Use the practice version to familiarize your students with the procedures for answering questions on the assessment. This practice form is intended for classroom use only and not intended to be sent home or used as homework.

### 18. How much may/should I help my students when they participate in the assessment? What instructions may I give to my students?

In order to ensure an accurate picture of students' independent skills in mathematics, it is important that you not help students other than by directing them to the appropriate pages on which to work. You can, and should, encourage your students to try their best, to read the instructions carefully, to take their time, and to check their work. You may encourage a student to move on to other questions if you notice that he/she is spending too much time on a question or task. If you notice that a student has two circles filled in for the same question, you should point that out to the student.

#### 19. May I define terms to my students? May I explain or clarify questions on the assessment?

No. You may quietly read aloud words or sentences that individual students ask you, but may not explain the questions to the students.

#### 20. Can students use cognitive credit cards?

No. The use of cognitive credit cards during provincial math assessments is not permitted and would compromise the validity of the math assessments for our students.

#### 21. May I give my students more time than that allotted per day?

Yes. Each day you may give your students an additional 15 minutes—but no more (French immersion students may have an additional 25 minutes). It is important that all students across the province are given approximately the same amount of time to complete the assessment.

### 22. May students go back and complete sections that they may not have completed on previous days?

No. In order to ensure an accurate picture of students' skills in mathematics it is important that students are given only the time allotted each day and do not return to a previous day's work.

#### 23. Should the results of this assessment be used as part of students' class marks?

No. Students' class marks are determined by their classroom teacher, and are based upon each student's achievement in relation to a wide range of curricular outcomes over time. The results of this assessment should not be used as part of students' class marks.

24. Do the results of the Elementary Mathematical Literacy Assessment affect report card marks? No. While the assessment profiles students in the area of elementary mathematical literacy, report card marks are generated by classroom teachers.

#### 25. What do I do if I have a question that is not answered above?

If you have a question that is not answered above, you should ask your School Assessment Coordinator for assistance.

#### Appendix G: Nova Scotia Assessment Development Model

All Nova Scotia provincial assessments and examinations are developed by an advisory group of teachers, under the direction of the professional staff of Evaluation Services.

