

**TITLE: ASSESSMENT, EVALUATION, AND REPORTING OF STUDENT ACHIEVEMENT**

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**1.0 OBJECTIVE**

To provide assessment, evaluation, and reporting procedures for student achievement in the Ottawa-Carleton District School Board.

**2.0 DEFINITIONS**

In this procedure,

- 2.1 **Assessment** refers to a continuous process of gathering information about student learning and performance, using a variety of sources over time (*assessment for learning*, e.g., early drafts, first tries and practice assignments).
- 2.2 **Evaluation** refers to the process of judging the quality of student work on the basis of established criteria, and the assigning of a value to represent that quality (*assessment of learning*).
- 2.3 **Grading** refers to the summarizing of evaluation data in the form of a letter or numerical grade for reporting purposes.
- 2.4 **Final Evaluation** refers to the thirty per cent of the grade that is administered at or towards the end of the course, including: an examination, a performance, an essay, and/or another method of evaluation suitable to the course content. The final evaluation allows the student an opportunity to demonstrate comprehensive achievement of the overall expectations for the course (*Growing Success, 2010 p. 41*).
- 2.5 **Professional Judgment** refers to judgment that is informed by professional knowledge of curriculum expectations, context, evidence of learning, methods of instruction and assessment, and the criteria and standards that indicate success in student learning. In professional practice, judgment involves a purposeful and systematic thinking process that evolves in terms of accuracy and insight with ongoing reflection and self-correction (*Growing Success, 2010 p. 152*).
- 2.6 **Professional Collaboration** refers to teachers and administrators in discussions regarding student outcomes. Professional collaboration among educators allows for school-wide practices to be consistent within and across schools.

### 3.0 RESPONSIBILITY

- 3.1 Superintendents of Instruction, principals, vice-principals, Curriculum Services, Quality Assurance, Learning Support Services and teachers.
- 3.2 Curriculum Services and Quality Assurance staff will, in collaboration with Superintendents of Instruction and principals:
- a) develop District procedures with regard to student assessment, evaluation and reporting practices;
  - b) provide expertise regarding research and effective assessment, evaluation and reporting practice;
  - c) help teachers and administrators gain access to the resources needed to support classroom assessment and evaluation practices;
  - d) provide staff development in assessment, evaluation and reporting practices;
  - e) prepare reports on student achievement;
  - f) develop action plans for making program improvements based upon student achievement results and in alignment with the Board Improvement Plan;
  - g) facilitate student participation in provincial, national and international large-scale assessments as required by the Ministry; and
  - h) ensure that the principles stated in the Board Policy P.083.CUR: Assessment, Evaluation and Reporting of Student Achievement, section 3.2 and 3.3, are reflected in District resource documents.
- 3.3 The principal, along with the vice-principal (s), will:
- a) work with teachers to ensure common and equitable practices that follow Ministry policy and Board policy and procedure;
  - b) as instructional leaders, foster a collaborative learning culture and develop school-wide assessment, evaluation and reporting practices;
  - c) develop and implement a school policy (secondary schools);
  - d) ensure appropriate administration of District, provincial and national large-scale assessments;
  - e) use assessment data for school improvement planning and assist staff in using assessment data effectively for program planning;
  - f) work with teachers to ensure that there is a common understanding among all staff about the process for determining the report card grade (see Sections 4.8-4.19);
  - g) establish and implement strategies for communicating assessment and evaluation information to the school community;

- h) ensure communication of student achievement information within and between schools;
- i) support staff development and professional collaboration regarding assessment, evaluation and reporting practices;
- j) monitor the assessment, evaluation and reporting practices of teachers;
- k) ensure that for each course taught in a secondary school, a clear and concise plan for assessment is filed using a standard District template (see example in Appendix C) that specifies the following:
  - (i) an explanation of the assessment of learning skills and work habits;
  - (ii) the overall curriculum expectations;
  - (iii) how student achievement of the overall expectations, for 70% of the term grade, will be evaluated using four levels of student achievement balanced across four achievement categories (see example in Appendix D); an overview of the types of tasks that will comprise the 70% term grade; and,
  - (iv) an overview of the one or more evaluation(s) that will comprise the 30% final evaluation grade; and
- l) collaborate with department heads and teachers to monitor the scheduling of major assignment dates in all classes.

3.4 The teacher, along with the principal, vice-principal(s) and where appropriate, with the support of the department head, will:

- a) ensure that assessment, evaluation and reporting practices meet the criteria stated in Board Policy P.083.CUR: Assessment, Evaluation and Reporting of Student Achievement, Section 3.3;
- b) administer large-scale assessments as required by the school, District or province;
- c) participate in professional learning opportunities on student assessment practices and the use of the results of program assessments;
- d) ensure that student assessment tasks in the classroom are designed to further the learning of individual students, provide information to improve instruction, and are consistent with school, Board and Ministry policies;
- e) ensure that all curriculum expectations are accounted for in instruction and assessment but evaluation focuses on students' achievement of overall expectations;
- f) are carefully planned to relate to the curriculum overall expectations and learning goals and, as much as possible, to the interests, learning styles and preferences, needs, and experiences of all students;
- g) ensure that assessment and evaluation practices minimize bias (e.g., recognize the level of language proficiency of students and educational needs of exceptional students);

- h) ensure that assessment is regular, ongoing and varied in nature, administered over a period of time and designed to provide multiple opportunities for students to demonstrate their learning;
- i) provide students with a clear description of the curriculum expectations and evaluation criteria at the beginning of a task and/or course;
- j) ensure that major assessment tasks are scheduled collaboratively to enable students to manage their time and that the assessment tasks are not scheduled such that they can be completed only over the December or March breaks;
- k) ensure that, when needed, students have adequate and flexible time and opportunity to complete assessment tasks;
- l) respect the sensitivity and confidentiality of student achievement information;
- m) gather data about learning skills and work habits on an ongoing basis and provide students with feedback to improve the performance of those skills and habits;
- n) monitor the students' progress towards completion of assessment tasks and communicate with parents when there are concerns; and
- o) provide ongoing evidence of student achievement to students, parents/guardians prior to the formal reporting period.

## 4.0 PROCEDURE

### Purpose

- 4.1 The primary purpose of assessment and evaluation practices is to improve classroom instruction, program delivery and student learning.
- 4.2 Assessment provides ongoing descriptive feedback in order to:
  - a) help the teacher make instructional decisions to meet the needs of students;
  - b) provide constructive information to assist students/parents/guardians in identifying the student's strengths and next steps for learning; and
  - c) help all students develop their capacity to be independent, autonomous learners who are able to set individual goals, monitor their own progress, determine next steps, and reflect on their thinking and learning.
- 4.3 Evaluation involves making judgments about the quality of student work in order to:
  - a) determine and report upon an individual student's performance at the end of a unit/strand or a period of time in relation to the curriculum expectations (summative); and
  - b) place or promote students and to award certificates and diplomas.
- 4.4 Reporting and communicating of system-level student achievement data to staff, parents and the general public will:
  - a) support school and board improvement planning; and

- b) guide the use of effective instructional practices and resources that are aligned with curriculum expectations.

#### Accommodations/Modifications

4.5 For all assessments and evaluations:

- a) schools will accommodate the needs of individual students including the granting of extended time on assessments and evaluations; this will apply to students who have been formally identified through an IPRC (Identification, Placement and Review Committee) and other students whose needs are outlined in an IEP (Individual Education Plan);
- b) schools will accommodate the individual needs of English language learners (ELLs) through various means including the granting of extended time on assessments and evaluations (a minimum of time-and-a-half); this will apply to students enrolled in ESL/ELD programs, to students who have completed ESL programs, and, when deemed necessary, to students who have arrived from a country where the first language is not English and whose language skills have been deemed strong enough for placement in a regular English program, but who still exhibit the language characteristics of an English language learner. Modification of some or all of the curriculum expectations may be required to support ELLs, especially those who are in the early stages of learning English or those who have had limited prior schooling;
- c) accommodations may include, but are not limited to, such considerations as setting (e.g., a separate room); presentation (e.g., large print); scheduling (e.g., parts of an examination given in a different order); response (e.g., use of a scribe); use of an English or bilingual print dictionary; and/or extended time; and,
- d) modifications are changes made to the grade-level expectations for a subject or course in order to meet a student's learning needs. Modifications may include the use of expectations at a different grade level and/or an increase or decrease in the number and/or complexity of expectations relative to the curriculum expectations for the regular grade level.

#### Attendance and Student Achievement

4.6 Since irregular attendance may hinder achievement and the development of the learning skills and work habits, schools will contact parents/guardians when issues of absenteeism arise.

4.7 Expectations regarding attendance and the link to student achievement will be communicated to students and parents at the beginning of the school year.

#### Determination of Marks and Grades

4.8 Students should be given numerous and varied opportunities to demonstrate their achievement of the curriculum expectations across all four categories of knowledge and skills.

4.9 In determining a term grade, professional judgment will be used based on the student's most consistent level of achievement with special consideration to more recent evidence of overall expectations.

- 4.10 Student achievement will be based solely on individual performance including individual performance within a group task.
- 4.11 Achievement of learning skills and work habits will be determined and reported separately from the achievement of curriculum expectations.
- 4.12 Teachers will specify due dates for assessment tasks to help their students manage time effectively. When due dates are not met, teachers will communicate this to students and parents. Students will be given an additional opportunity to complete the original or an alternate task if, in the teacher's professional judgment, there is not sufficient evidence of the overall expectations (see Appendix B).
- 4.13 In determining a term grade, teachers will evaluate a student's achievement of the overall curriculum expectations. Students will be given opportunities to demonstrate the defined curriculum expectations. Using multiple sources of evidence increases the reliability and validity of the evaluation of student learning. If the teacher has no evidence of the student's knowledge or skills related to the expectations evaluated, a zero will represent the student's absence of evidence of that learning (see Appendix B).
- 4.14 For English language learners, some or all of the course expectations may be modified in any given course. Modifications are changes to regular course expectations, based on the student's level of English language proficiency (e.g., eliminating some expectations, changing expectations with respect to degree of difficulty). When learning expectations are modified for English language learners, evaluation will be based on modified expectations and teachers will check the ESL/ELD box on the report card.
- 4.15 The evaluation of student learning is the responsibility of the teacher and must not include the judgment of the student or the student's peers.
- 4.16 Teachers will collect evidence of student achievement for evaluation over time from three sources – observations, conversations, and student products.
- 4.17 Assignments for evaluation must not include ongoing homework. Teachers cannot assign a mark for completing homework tasks. Homework tasks designed to help students practice and consolidate new learning can also provide assessment information that both teachers and students can use to adjust instruction and focus learning.
- 4.18 Achievement that falls below Level 1 in grades 1 to 8 will be represented by the code "R" and in grades 9 to 12 by percentage marks between 0% and 49%. Both "R" and marks below 50% signal that additional learning is required before the student begins success in meeting the subject/grade or course expectations.
- 4.19 For grades 1 to 10, the code "I" may be used in a marks management system and/or on a student's report card, including the final report card, to indicate that insufficient evidence is available to determine a letter or percentage grade. For grades 9 and 10, students who receive an "I" on the final report card, will not receive a credit but may be considered for credit recovery.

#### Late and Missed Assignments

- 4.20 Students are expected to submit assignments within the timeframe specified by the teacher.

- 4.21 To promote the timely submission of assignments, teachers will use a repertoire of proactive strategies, including, but not limited to:
- a) Collaborating with other staff to schedule major assignment dates for every class, while taking into account the District's designated holy days;
  - b) Planning for major assignments to be completed in stages, so that students are less likely to be faced with an all-or-nothing situation at the last minute;
  - c) Helping students develop better time management skills;
  - d) Maintaining ongoing communication with students and/or parents about due dates and late assignments, and scheduling conferences with parents if the problem persists;
  - e) In secondary schools, referring the student to the student success team;
  - f) Setting up a student contract;
  - g) Using counseling or peer tutoring to try to deal positively with problems;
  - h) Holding teacher-student conferences;
  - i) Assessing the need for extra support for English language learners;
  - j) Assessing the need for extra support for students with special needs;
  - k) Requiring the student to work with a school team to complete the assignment;
  - l) Involving multi-cultural liaison officers, social workers, Aboriginal counselors and/or members of the extended family for newcomers and students from ethno-cultural groups or communities as well as First Nation, Metis, and Inuit students; and,
  - m) Providing alternative assignments or tests/exams where, in the teacher's professional judgment, it is reasonable and appropriate to do so.
- 4.22 There may be times when, in spite of the proactive strategies used by the teacher, a student does not submit an assignment or is late submitting an assignment. The teacher will gather information about the student to determine if there are mitigating circumstances by:
- a) asking the student to clarify the reason for not completing the assignment;
  - b) taking consideration of legitimate reasons for missed deadlines; and,
  - c) understanding and taking into account the cultures, histories and contexts of newcomers and students from ethno-cultural groups or communities, First Nation, Metis, and Inuit students and their previous experiences with the school system.
- 4.23 At the due date, the teacher will:
- a) remind the student about the need to complete the assignment for evaluation; and,

- b) communicate with the parent(s) and/or guardian to seek support for the completion of the assignment for evaluation.
- 4.24 Subsequent to employing a range of the aforementioned strategies, if the teacher is considering deducting marks as a consequence of the late submission of an assignment for evaluation, the teacher will communicate with school administration in order to maintain professional collaboration and consistent school-wide practices.
- 4.25 At the end of the unit/strand, the teacher will:
- a) record an “incomplete” for the assignment for evaluation;
  - b) require the student to complete the assignment or one alternate assignment;
  - c) provide additional support to the student; and
  - d) communicate with the parent(s) and/or guardian.
- 4.26 At the reporting period, the teacher will:
- a) ensure that late and missed assignments for evaluation are noted on the Learning Skills and Work Habits section of the report card;
  - b) ensure that mark deduction (if utilized) will not result in a percentage grade or letter grade that, in the professional judgment of the teacher, misrepresents the student’s actual achievement;
  - c) determine if there is sufficient evidence of the overall expectations;
    - (i) if so, report a grade using the teacher’s professional judgment;
    - (ii) if not, the student receives either an “I” indicating insufficient evidence (grades 1-10), an “R” (grades 1-8), or a failing grade between 0% and 49% (grades 9-12);
  - d) provide, where appropriate, additional support to the student (e.g., credit recovery – secondary); and,
  - e) communicate with the parent(s) and/or guardian.

#### Academic Integrity

- 4.27 Work that is plagiarized or is not the student’s original material will not be included among the evaluation evidence that is considered for grading purposes.
- 4.28 As a preventative strategy, teachers will inform students of what constitutes academic fraud at the beginning of the semester/school year.
- 4.29 Students will be advised of the behavioural and academic consequences of academic fraud at the beginning of the school year.
- 4.30 The consequences of academic fraud will adhere to the guidelines of the school code of conduct and/or secondary school assessment and evaluation policies based on mitigating factors including:
- a) the grade level of the student;
  - b) the maturity of the student;

- c) the number and frequency of incidents; and
  - d) the individual circumstances of the student.
- 4.31 Fraudulent work provides “zero evidence” of a student’s knowledge or skills related to the expectations being evaluated. A mark of zero will represent the student’s absence of evidence of that learning. The student will be given an additional opportunity to demonstrate achievement of the overall expectations when, in the teacher’s professional judgment, there is not sufficient evidence (see Appendix B).

#### Determination of the Final Grade

- 4.32 In Secondary Schools, 70% of the final grade will be based on evaluation conducted throughout the course and will:
- a) include achievement that is tracked according to the Ministry Achievement Chart categories such that overall achievement within each category reflect trends in learning;
  - b) be based on evaluations conducted throughout the course and should reflect the student’s most consistent level of achievement of overall expectations with special consideration to more recent evidence of achievement;
  - c) continue to be aligned with Assessment Plan, Student Evidence Record, and Assessment Planning Placemat (see Appendices D, E, F, G and H); and,
  - d) incorporate a variety of assessment strategies that are triangulated to include observation, student-teacher conversations, and student products to elicit information about student learning and achievement.
- 4.33 In Secondary Schools, 30% of the final grade will be based on one or more final evaluation(s) administered at or towards the end of the course under the direct supervision of teachers and/or administration. The evaluation(s) will be based on evidence from one or a combination of the following: an examination, a performance, an essay, and/or (an)other method(s) of evaluation suitable to the course content, and will:
- a) involve teachers using their professional judgement to develop and administer evaluation(s), the purpose of which is:
    - (i) the measurement of learning based on the overall expectations and the criteria in the Achievement Chart;
    - (ii) an additional opportunity(ies) to demonstrate achievement of the overall expectations;
    - (iii) an opportunity for students to consolidate and achieve a sense of accomplishment (the celebration of learning); and,
    - (iv) to meet the threshold for validity, reliability and transparency as per *Growing Success: Assessment, Evaluation, and Reporting in Ontario Schools (2010)*.
  - b) align with the modes of delivery, assessment practices, content and skills emphasized throughout the course;
  - c) measure the achievement of the overall expectations that have been previously evaluated during the course and for which the students have had an opportunity for feedback; and,

- d) continue to be aligned with the Assessment Plan, Student Evidence Record, and Assessment Planning Placemat (see Appendices D,E,F, G and H).
- 4.34 For the final evaluations that take place during the District examination period, the task will:
- a) take place within the District examination period as specified by the school year calendar;
  - b) take place such that no student will write more than two final evaluations in a school day; and,
  - c) either be returned to the student or be stored in the school for a period of one year, so that students may have an opportunity to review their evidence of learning.
- 4.35 In developing Final Evaluations, teachers are encouraged to refer to Appendix I for Guiding Questions and Criteria for Quality Final Evaluations.
- 4.36 During the final two instructional days of any semester or term, students will not be assigned new evaluation tasks or asked to submit any tasks for evaluation purposes (not including credit rescue or recovery opportunities and/or exceptional circumstances, in consultation with school administration).

#### Inclement Weather During the Examination Schedule

- 4.37 In the event of inclement weather resulting in the cancellation of school buses within the District, all evaluations will be postponed to the next day in all secondary schools. (Note: This may result in a shifting of each remaining day of the examination schedule, and a corresponding delayed start to semester 2).
- 4.38 In the event that an individual school must be closed on a day during the examination schedule, evaluations scheduled to be written on that day will be written on the next day that the school is open.

#### Credit Recovery Program in Secondary Schools

- 4.39 The Credit Recovery Learning Plan is intended to address the individual student's needs and should include how a final grade will be determined.
- 4.40 The final grade should reflect the achievement of all overall curriculum expectations of the course. Depending on the student's Credit Recovery Learning Plan, the grade may be based solely on performance in the Credit Recovery program or may include results from the initial course and/or measures of prior learning. Regardless of the method used to determine the final grade, the evaluation practices must be consistent with Ministry and Board policy.

#### Non-credit to Credit Courses in Secondary Schools

- 4.41 For all subject areas in which a student is moving from a non-credit course to a credit course, the recommendation of the teacher of the non-credit course shall be considered. In English or Mathematics, successful completion of an entry level assessment may be required. The grade for academic achievement in the non-credit course will be the basis for the recommendation and will be exclusive of the 20% employability skills.

- 4.42 Once a student in an ESL/ELD program has successfully completed a non-credit course, the student will normally be enrolled in a grade 9 sheltered credit course (i.e., those designed for ELLs) in the same subject area. In these cases, the recommendation of the teacher and the final mark shall be considered. In some cases, students may be enrolled in mainstream grade 9 credit courses in the same subject area.

### Reporting

- 4.43 Schools will formally report to parents/guardians at designated times in the school year (i.e., elementary – one progress report card and two report cards; secondary semestered schools – one interim report card and one final report card per semester; secondary non-semestered schools – two interim report cards and one final report card). Reporting will include the child’s achievement, his/her development of learning skills and work habits and his/her attendance according to the procedures in *Growing Success: Assessment, Evaluation, and Reporting in Ontario Schools (2010)*.

## **5.0 APPENDICES**

- Appendix A Determining Report Card Grades (1-12): Conversion Charts
- Appendix B Dealing with Late/Missed Assignments
- Appendix C Sample: Course Summary of Assessment for Secondary Schools for MPM1D
- Appendix D Sample: Assessment Plan (blank)
- Appendix E Sample: Assessment Plan for MPM1D
- Appendix F Sample: Evidence Record (blank)
- Appendix G Sample: Evidence Record for MPM1D
- Appendix H Sample: Assessment Planning Placemat
- Appendix I Guiding Questions and Criteria for Quality Final Evaluations

## **6.0 REFERENCE DOCUMENTS**

- Growing Success: Assessment, Evaluation, and Reporting in Ontario Schools. Grades 1 to 12, 2010
- English Language Learners: ESL and ELD Programs and Services: Policies and Procedures for Ontario Elementary and Secondary Schools, Kindergarten to Grade 12, Ministry of Education, 2007
- The Ontario Curriculum: Grades 9 to 12, English as a Second Language and English Literacy Development, Ministry of Education, 2007
- Learning for All: A Guide to Effective Assessment and Instruction for All Students, Kindergarten to Grade 12, 2013
- Board Policy P.083.CUR: Assessment, Evaluation and Reporting of Student Achievement
- Board Procedure PR.582.CUR: Staff Advisory Committee on Student Evaluation
- Board Procedure PR.585.CUR: The Use of Commercial Standardized Tests

## Determining a Report Card Grade: Conversion Chart

### Grades 1 to 6

The following conversion chart shows how the four levels of achievement are aligned to letter grades.

Achievement Level	Letter Grade
4+	A+
4	A
4-	A-
3+	B+
3	B
3-	B-
2+	C+
2	C
2-	C-
1+	D+
1	D
1-	D-

Teachers will use the code “R” to indicate when a student has not demonstrated Level 1 performance. Teachers may use the code “I” to indicate insufficient of learning.

### Grades 7 to 12

The following conversion chart shows how the four levels of achievement are aligned to percentage marks.

Achievement Level	Percentage Marks
4+	95-100
4	87-94
4-	80-86
3+	77-79
3	73-76
3-	70-72
2+	67-69
2	63-66
2-	60-62
1+	57-59
1	53-56
1-	50-52

For Grades 7 and 8, teachers will use the code “R” to indicate achievement below 50 per cent. For Grades 9 to 12, teachers will use percentage marks to indicate achievement below 50 per cent. For Grades 7 to 10, teachers may use the code “I” to indicate insufficient evidence of learning. The code “I” may not be used in Grades 11 and 12.

## Dealing with Late/Missed Assignments

### Planning and Communication

Teacher identifies set of critical tasks related to essential learning. This list is communicated to students and parents, along with *due dates*, *end-of-unit dates*, and *end of reporting period dates*.

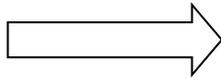


Teacher provides process timelines for students to support them in completing tasks, as well as in-class time to work on each task. Teacher uses a repertoire of proactive strategies to promote the timely submission of assignments.

### Missed Tasks and Teacher Response

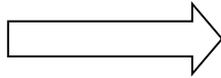
#### Student

Student does not complete a task by *due* date.



Teacher reminds student about need to complete task and initiates contact with home to inform parents and seek support. Teacher records "incomplete" for the task. The student will be given an additional opportunity to complete the task. This may be the original task or an alternate task, if integrity of the original task has been compromised by a late submission.

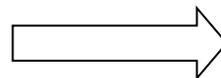
Student does not complete this task by the second opportunity date.



Teacher reminds student about need to complete task and contacts home to inform parents and seek support. Student may be provided with additional support (e.g., credit rescue in secondary schools) to facilitate completion of task. Further communication with parents is required.

After considering mitigating factors, if the teacher is considering deducting marks as a consequence of late submission of an assignment for evaluation, the teacher will communicate with school administration in order to maintain professional collaboration and consistent school-wide practice.

Student does not complete this task by the end of the term/semester/year.



Teacher determines whether there is sufficient evidence of achievement of the overall expectations from completed tasks. If there is, a report card grade is determined using teacher's professional judgment, but learning skills/work habits and anecdotal comment reflect missed task(s). If there is insufficient evidence of achievement of the overall expectations from completed tasks, student receives "R" or a failing percentage grade. A plan for credit recovery is put in place in the secondary context (where appropriate). Further communication with parents is required.

## **MPM1D Principles of Mathematics**

This course enables students to develop an understanding of mathematical concepts related to algebra, analytic geometry, and measurement and geometry through investigation, the effective use of technology, and abstract reasoning. Students will investigate relationships, which they will then generalize as equations of lines, and will determine the connections between different representations of a linear relation. They will also explore relationships that emerge from the measurement of three-dimensional figures and two-dimensional shapes. Students will reason mathematically and communicate their thinking as they solve multi-step problems.

**COURSE EXPECTATIONS:** By the end of the course, students will:

### **A: Number Sense and Algebra**

- demonstrate an understanding of the exponent rules of multiplication and division, and apply them to simplify expressions
- manipulate numerical and polynomial expressions, and solve first-degree equations

### **B: Linear Relations**

- apply data-management techniques to investigate relationships between two variables
- demonstrate an understanding of the characteristics of linear relation
- connect various representations of a linear relation

### **C: Analytic Geometry**

- determine the relationship between the form of an equation and the shape of its graph with respect to linearity and non-linearity
- determine, through investigation, the properties of the slope and y-intercept of a linear relation
- solve problems involving linear relations

### **D: Measurement and Geometry**

- determine, through investigation, the optimal values of various measurements
- solve problems involving the measurements of two-dimensional shapes and the surface areas and volumes of three-dimensional figures
- verify, through investigation facilitated by dynamic geometry software, geometric properties and relationships involving two-dimensional shapes, and apply the results to solving problems

## **EVALUATION**

Evaluation will focus on students' demonstrated achievement of the overall expectations of this course. The quality of student work will be assessed

using a balance of criteria from four categories of achievement outlined in the Ministry of Education's achievement chart for mathematics:

- Knowledge and Understanding: Subject-specific content acquired in each grade/course (knowledge), and the comprehension of its meaning and significance (understanding)
- Thinking: The use of critical and creative thinking skills and/or processes
- Communication: The conveying of meaning through various forms
- Application: The use of knowledge and skills to make connections within and between various contexts

Students will be evaluated using four levels of achievement:

Level 4: Achievement **surpasses** the provincial standard

Level 3: Achievement **meets** the provincial standard

Level 2: Achievement **approaches** the provincial standard

Level 1: Achievement that falls **much below** the provincial standard

R: The student has not demonstrated the required knowledge or skills

Zero: No evidence of learning

Students who achieve level 3 or above have met the expectations for the course, and are prepared for the next course along the current pathway.

The final mark for the course is comprised of 70% Term work and 30% Final Evaluation mark. The Final Evaluation mark will come from one or more evaluation tasks administered at or towards the end of the course.

### **LEARNING SKILLS AND WORK HABITS**

The development of sound learning skills and work habits is essential to the success of our students. Teachers and students will work together to understand and further the development of student learning skills and work habits in the areas of Responsibility, Organization, Independent Work, Collaboration, Initiative and Self-regulation. Evidence of student learning skills and work habits will be gathered on an ongoing basis and students will be provided with feedback to improve the performance of those skills and habits.

Overall Expectations										Achievement Chart Criteria																				
											K/U		Application			Thinking			Communication											
<b>Tasks</b>																														

### Assessment Plan for MPM1D (Sample)

Tasks	Overall Expectations										Achievement Chart Criteria											
	Number Sense and Algebra		Linear Relations			Analytic Geometry			Measurement and Geometry		K/U		Thinking		Communication		Application					
	NS1: Demonstrate an understanding of the exponent rules of multiplication and division and apply them to simplify expressions	NS2: Manipulate numerical and polynomial expressions, and solve first-degree equations.	LR1: Apply data-management techniques to investigate relationships between two variables	LR2: Demonstrate an understanding of the characteristics of a linear relation	LR3: Connect various representations of a linear relation	AG1: Determine the relationship between the form of an equation and the shape of its graph with respect to linearity and non-linearity	AG2: Determine, through investigation, the properties of the slope and y-intercept of a linear	AG3: Solve problems involving linear relations	MG1: Determine, through investigation, the optimal values of various measurements	MG2: Solve problems involving the measurements of two-dimensional shapes and the surface area and volumes of three-dimensional figures	MG3: Verify, through investigation facilitated by dynamic geometry software, geometric properties and relationships involving two-dimensional shapes.	Knowledge of content (facts, terms, procedures)	Understanding of mathematical concepts	Use of planning skills (understanding the problem, making a plan to solve the problem)	Use of processing skills (carrying out a plan, looking back at the solution, reasonableness, justifying,	Use of critical / creative thinking processes (problem solving, inquiry)	Expression and organization of ideas and mathematical thinking	Communication for different audiences and purposes (present data, justify solution, math argument) in oral, visual, written forms.	Use of conventions, vocabulary and terminology	Application of knowledge and skills in familiar contexts	Transfer of knowledge and skills to new contexts	Making connections within and between various contexts
1. Test 1	X	x									x	x				x		x				
2. Paper Clips Task		x	x	x	x			x			x	x	x	x	x	x	x			x	x	
3. Data Project			x	x	x			x		x	x	x	x	x	x	x	x	x		x		
4. Test 2	X	x			x			x			x	x			x	x	x	x	x	x	x	x
5. Line Investigation				x	x	x	x	x			x	x	x	x	x	x	x					x
6. Test 3		x			x			x			x	x			x	x	x	x	x	x	x	x
7. Ramp Project							x	x	x		x	x	x	x	x	x	x					
8. Test 4				x	x		x	x			x	x		x	x	x	x	x	x	x	x	x
9. Sketchpad Invest.									x	x	x	x	x	x	x	x	x					
10. Containers Task										x	x	x	x	x	x	x	x			x	x	x
11. Test 5		x									x	x			x	x	x	x	x	x	x	x
12. Evaluation Task		x	x	x	x	x					x	x	x	x	x	x	x					
13. EQAO exam	X	x	x	x	x	x		x	x	x	x	x			x	x	x	x	x	x	x	x

Term work	R Insufficient		Level 1 Limited		Level 2 Some		Level 3 Considerable		Level 4 Thorough		Strand Summary
	-	+	-	+	-	+	-	+	-	+	
<b>Strand One</b>											
E 1											
E 2											
E 3											
<b>Strand Two</b>											
<b>Strand Three</b>											
<b>Strand Four</b>											

**Summative**


**Overall Expectations:**

<b>Strand 1</b>	
E 1	Explanation of Expectation One
E 2	Explanation of Expectation Two
E 3	Explanation of Expectation Three

**Qualifiers**

<b>R</b>	Insufficient; inadequate
<b>1</b>	Limited; simplistic
<b>2</b>	Some; adequate; basic; obvious
<b>3</b>	Considerable; reasonable; appropriate; solid; familiar; purposeful
<b>4</b>	Thorough; insightful; to a high degree; elegant; compelling; sophisticated

**Notes:**


Term work	R Insufficient		Level 1 Limited		Level 2 Some		Level 3 Considerable		Level 4 Thorough		Strand Summary	
	-	+	-	+	-	+	-	+	-	+		
<b>Number Sense and Algebra</b>												
NS1							1.T1	4.T2			3+ Strength in NS2	
NS2					1.T1	11.T5	2.PC	6.T3	4.T2			
<b>Linear Relations</b>												
LR1					2.PC		3.DP				4- Weakness in LR1 Strength in LR3	
LR2					5.LI	2.PC	3. DP		8.T4			
LR3							6.T3	2.PC	4.T2	3.DP		8.T4
<b>Analytic Geometry</b>												
AG1							5.LI				3 Tests weaker than projects	
AG2							8.T4		5.LI	7.RP		
AG3					4.T2	2.PC	8.T4	5.LI	6.T3	3.DP		7.RP
<b>Measurement and Geometry</b>												
MG1					9.SI			7.RP			3 Poor performance on Sketchpad Investigation	
MG2				9.SI		3.DP		10.CT	11.T5			
MG3				9.SI			11.T5	10.CT				
<b>Final Evaluation</b>												
										12.Task (4-)		
								13.EQAO (3-)				

**Overall Expectations:**

<b>Number Sense and Algebra</b>	
NS1	Demonstrate an understanding of the <b>exponent rules</b> of multiplication and division and apply them to <b>simplify expressions</b>
NS2	<b>Manipulate</b> numerical and polynomial <b>expressions</b> , and <b>solve</b> first-degree <b>equations</b> .
<b>Linear Relations</b>	
LR1	<b>Apply data-management techniques</b> to <b>investigate relationships</b> between two variables
LR2	Demonstrate an <b>understanding</b> of the <b>characteristics of a linear relation</b>
LR3	<b>Connect</b> various <b>representations of a linear relation</b>
<b>Analytic Geometry</b>	
AG1	<b>Determine</b> the <b>relationship</b> between the <b>form of an equation</b> and the <b>shape of its graph</b> with respect to linearity and non-linearity
AG2	<b>Determine</b> , through <b>investigation</b> , the <b>properties</b> of the <b>slope</b> and <b>y-intercept</b> of a linear relation
AG3	<b>Solve problems</b> involving <b>linear relations</b>
<b>Measurement and Geometry</b>	
MG1	<b>Determine</b> , through <b>investigation</b> , the <b>optimal values</b> of various measurements
MG2	<b>Solve problems</b> involving the <b>measurements</b> of two-dimensional <b>shapes</b> and the <b>surface area</b> and <b>volumes</b> of three-dimensional figures
MG3	<b>Verify</b> , through <b>investigation</b> facilitated by dynamic geometry software, <b>geometric properties</b> and <b>relationships</b> involving two-dimensional shapes, and <b>apply the results</b> to <b>solving problems</b>

**Qualifiers:**

<b>R</b>	Insufficient; inadequate
<b>1</b>	Limited; simplistic
<b>2</b>	Some; adequate; basic; obvious
<b>3</b>	Considerable; reasonable; appropriate; solid; familiar; purposeful
<b>4</b>	Thorough; insightful; to a high degree; elegant; compelling; sophisticated

**Notes:**

Some tasks provide higher quality evidence and richer opportunity for level 4 performance. This has been considered in weighting at the strand level.
LR1, AG1, and MG1 expectations have a lower weight relative to other expectations in those strands
Sketchpad Investigation (Task 9) was poorly done by the whole class (teacher away) and was not weighted highly as quality evidence
Throughout the term, student showed general strength in demonstration of mathematical thinking through hands-on projects. This trend was confirmed on the summative task.
Overall Performance: Term work : 3+, Summative : 3 <span style="float: right;"><b>Final Grade: 77%</b></span>

## Assessment Plan

The **Assessment Plan** communicates curriculum expectations and the criteria for assessment, and connects them to the tasks that provide opportunities for students to demonstrate their learning.

Tasks	Overall Expectations				Achievement Chart Criteria			
	Number Sense and Algebra	Linear Relations	Analytic Geometry	Measurement and Geometry	K/U	Thinking	Communication	Application
1. TEST 1	X	X			X	X	X	X
2. Data Project		X	X	X	X	X	X	X
3. Data Project		X	X	X	X	X	X	X
4. Test 2	X	X	X	X	X	X	X	X
5. Line Investigation		X	X	X	X	X	X	X
6. Test 3		X	X	X	X	X	X	X
7. Ramp Project			X	X	X	X	X	X
8. Test 4		X	X	X	X	X	X	X
9. Sketchup Invest			X	X	X	X	X	X
10. Containers Task		X	X	X	X	X	X	X
11. Test 5	X	X	X	X	X	X	X	X
12. Summative Task	X	X	X	X	X	X	X	X
13. EQAO exam	X	X	X	X	X	X	X	X

The **Evidence Record** organizes evidence of student learning relative to the overall expectations of the course. It provides a visual representation of student progress that serves as a communication tool for teachers, students and parents.

Tasks are designed as opportunities for students to demonstrate achievement of the Overall Expectations

All strands are considered to determine a level for the term

MPM1D Test 1		Questions	Level
Overall Expectations			
NS1: Demonstrate an understanding of the exponent rules of multiplication and division and apply them to simplify expressions	1, 2, 4, 5, 6		3-
NS2: Manipulate numerical and polynomial expressions, and solve first degree equations	3, 5, 6		2-
Rubric			
Knowledge of content (facts, terms, procedures)	R	1	2
Understanding of mathematical concepts	1	2	3
Expression and organization of ideas and mathematical thinking	1	2	3
Use of conventions, vocabulary and terminology	1	2	3
Test Questions			
1.			
2.			
3.			
4.			
5.			
6.			

Rubrics contains criteria based on the Achievement Chart that are used to judge the quality of work

## Evidence Record

Term work	R Insufficient	Level 1 Limited	Level 2 Some	Level 3 Considerable	Level 4 Thorough	Strands Summary
<b>Number Sense and Algebra</b>						
NS1				1.T1	4.T2	3+ Strength in NS2
NS2			1.T1	11.T5	2.PC	6.T3
<b>Linear Relations</b>						
LR1			2.PC	3.DP		4- Weakness in LR1 Strength in LR3
LR2		5.LI	2.PC	3.DP		
LR3				6.T3	4.T2	3.DP
<b>Analytic Geometry</b>						
AG1				5.LI		
AG2				8.T4		
AG3			4.T2	2.PC	5.LI	3.DP
<b>Measurement and Geometry</b>						
MG1					7.RP	
MG2			9.SI	3.DP		
MG3			9.SI		11.T5	
<b>Summative</b>						
					13.EQAO	

Evidence from tasks is recorded and organized by strand

Professional judgment is used to determine an overall level for each strand

	Level
Number Sense and Algebra	3+
Linear Relations	4-
Analytic Geometry	3
Measurement and Geometry	3
<b>Overall Term</b>	<b>3+</b>
EQAO Task	3-
<b>Overall Summative</b>	<b>3</b>
<b>Final Grade</b>	<b>77%</b>

Levels are represented as percentages for reporting purposes

Achievement Level	Percentage Marks	Achievement Level	Percentage Marks
4+	95-100	2+	67-69
4	87-94	2	63-66
4-	80-86	2-	60-62
3+	77-79	1+	57-59
3	73-76	1	53-56
3-	70-72	1-	50-52

### **Guiding Questions for Quality Final Evaluation**

1. Is my judgement based on the big ideas reflected in the overall expectations?
2. Have I collaborated with others to inform my professional judgement?
3. Do the components of the final evaluation align with the modes of delivery, assessment practices, content and skills emphasized throughout the course?
4. Is the final evaluation accessible to all students?
5. Are the success criteria communicated and understood?
6. Does the final evaluation reflect the critical thinking components in the curriculum and engage learners in the demonstration of their learning?

### **Criteria for Quality Final Evaluations**

Quality Final Evaluations are developed collaboratively with colleagues (where possible), used to reflect on instruction and improve student learning, and they:

- are aligned with overall curriculum expectations and reflect a balance of Achievement Chart categories;
- provide opportunity for consolidation of student learning;
- provide equitable opportunities and entry points for all students to demonstrate their learning;
- consider the inclusion of Observations, Conversations and Products and student learning styles;
- consider the processes involved in learning;
- should be completed during the instructional day or district examination period (under direct supervision of teachers or administrators); and,
- consider student well-being.