

# ACADEMIC FOCUS: NUMERACY – MEETING CURRICULAR OUTCOMES

## OUTCOMES

Students in Grades 1 to 8 will reach grade level outcomes in Mathematics.

Students in Grade 9 will successfully complete and receive credit for 10F Mathematics on their first attempt.

There will be an increase in the number of students graduating with credits in Applied and Pre-Calculus Mathematics.

## STRATEGIES

- Students in Grades 1-8 will have a minimum of 60 minutes of Mathematics instruction per day.
- Students who are not performing at grade level will be given additional instruction (“reach back”) in order to close the “gap” between their level of achievement and grade level outcomes.
- Grade 9 Mathematics will be taught over the course of the academic year (not semestered). Students will be eligible to receive 2 credits – one for Grade 9 Transitional Mathematics and one for Grade 9 Mathematics 10F.
- Teachers will create and implement yearly plans in such a way that foundational outcomes are taught in the first half of the year, in order for students to develop a deep understanding of the foundations and use their knowledge to achieve the mathematical outcomes for their grade. Teachers are encouraged to use Pacing Guides where they exist.
- Teachers will engage in mathematics instruction based in current “best practice” (research-based) and with a focus on differentiated instruction (individualized and small group), with regular and frequent assessment of the outcomes.
- Teachers will use the Checklist of Outcomes as part of their daily practice in order to track students’ progress in meeting the outcomes and to inform their teaching.
- Where teachers need support with curriculum content, planning or pedagogical approaches, appropriate professional development will be provided.
- Coaches will support teachers by:
  - Working with groups of teachers (e.g. Grade Groups, School Groups, etc.), to review and refine instruction and assessment practices, and to plan for instruction (yearly, monthly, units);
  - Working with individual teachers by modeling instruction, observing teachers in their practice, providing critical feedback, arranging for peer visits (where feasible), recommending and providing resources to support teacher learning and instruction;
  - Helping to analyze student assessment data to understand the information provided and how to use it in planning for instruction;
  - Helping teachers with the implementation of a classroom management system that supports individualized and small group instruction.
- Principals and Vice-Principals will support teachers by:
  - Becoming proficient in classroom observations (numeracy focus);
  - Engaging in regular, focused dialogue with teachers in the area of student achievement in mathematics, using data sources such as Divisional assessments, provincial assessment data, Checklist of Outcomes, etc.;
  - Ensuring that teachers are “on track” with yearly plans (curriculum pacing) and assessment monitoring;
  - Providing the resources and support for personal PD;
  - Maintaining math as a focus for school improvement (e.g. staff meetings, in-school PD, assessment conversations, data-driven dialogue);
  - Engaging the Mathematics coach to support individual teachers as necessary and to “trouble shoot” with teachers where students are not progressing.
- Superintendents will support schools by:
  - Ensuring that school-wide strategies for effective mathematics instruction have been implemented:
    - Providing assistance, as necessary, with budget & resource allocations, scheduling, clarification of expectations, role of teachers and support staff, etc.;
    - Providing appropriate resources;
    - Regularly monitoring school progress (resource allocations, reflective conversations, data-driven dialogue, etc.).
  - Empowering Coaches by ensuring access to principals, teachers and classrooms, recognizing their expertise in the area of mathematics instruction, and upholding expectations that their recommendations are respected and implemented.

## DATA COLLECTION

- Baseline data will be established to determine current levels:
  - Checklist of Outcomes
  - Report Card data
  - Divisional assessments (Grades 5, 6, 7, 8, and 9)
  - Credit enrollment and acquisition data
- On-going data collection to indicate growth and achievement:
  - Classroom-based assessment (journals, conferencing, foundational quizzes, tests, observations, etc.)
  - Checklist of Outcomes and Evidence of Learning
- Report Card Data
- Provincial Assessment Data
  - Grade 3 Assessment in Numeracy
  - Grade 7 Mathematics
  - Grade 9 Credit Attainment First Attempt
- Grade 12 Provincial Tests (Essentials, Applied, Pre-Calculus)

## INDICATORS OF SUCCESS

- By June 2020, the number of students in Grades 1-8 who meet all the age / grade appropriate curricular outcomes will increase by 5%.
- By June 2020, the number of Grade 9 students who successfully obtain their credit(s) on their first attempt will increase by 5%.
- All students who have enrolled in Grades 10-12 Math courses will obtain their credits.
- There will be an increase in the number of credits obtained in Applied and Pre-Calculus courses.

*Professional Development plan on reverse side.*



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## PROFESSIONAL DEVELOPMENT PLAN, 2019-20

- Area implementation – led by Numeracy Coaches
- Curriculum focus – achieving grade level outcomes:
  - Effective planning
  - Effective instructional practices
- Target Groups:
  - Classroom teachers
  - New teachers
- Numeracy Coaches will support schools as follows:
  - Teachers:
    - Implementation of the Numeracy Achievement Plan
    - Small group / individualized instruction (e.g. guided math)
    - Classroom structure to support small group instruction
    - Intervention strategies for students not at grade level to close the gaps
    - Yearly planning using Pacing Guides
    - Assessment, tracking student progress (Checklist of Outcomes, Foundational Quizzes)
  - Principals:
    - Establish division / school expectations for achievement in mathematics
    - Monitor classroom instruction:
      - Small group & individual instruction
      - Classroom structures
      - Assessment practices
    - Monitor student progress:
      - Curriculum pacing
      - Checklist of outcomes
      - Divisional assessments
  - Numeracy Support Teachers:
    - Small group / individualized instruction & intervention strategies (e.g. Math Recovery)
- Numeracy Achievement Project (in collaboration with mRLC):
  - Cohort B: Maintenance for participating Gr. 6 and 9 teachers from Areas 3, 4, and 5
  - Cohort E: Year 2 of project for participating Gr. 7 and 8 teachers from Areas 3, 4, and 5
  - Cohort H: Year 1 of extended project for participating Gr. 7 and 8 teachers from Areas 1-5