

York Region District School Board
The Dr. G. W. Williams Secondary School
Personalized Alternative Education Department
Grade Ten Mathematics (MAT2LA)
Subject Head: C. Cluff

Credit Value: 1 Credit **Prerequisite:** MAT1L **Course Fee:** None

Curriculum Policy Document: The Ministry of Education does not provide specific expectations in *The Ontario Curriculum* for locally developed courses

Department: Mathematics

Course Description:

This course emphasizes the extension of mathematical knowledge and skills to prepare students for success in their everyday lives, in the workplace, and in the Grade 11 Mathematics Workplace Preparation course. The course is organized in three strands related to money sense, measurement, and proportional reasoning. In all strands, the focus is on strengthening and extending key foundational mathematical concepts and skills by solving authentic, everyday problems. Students have opportunities to extend their mathematical literacy and problem-solving skills and to continue developing their skills in reading, writing, and oral language through relevant and practical math activities.

Units of Study:

1-Money Sense

This unit focuses on decimal applications and communicating about money.

2- Measurement

The unit focuses on the metric and imperial system, perimeter and circumference as well as area and volume.

3- Proportional Reasoning

This unit focuses on calculating fractions, percentages, rates and ratios and the application of these skills.

Learning Skills: (abridged list from *Growing Success, 2010*)

Learning Skills will be assessed, modelled, and reflected upon throughout the course. Students will be required to address several critical questions regarding their own development of essential learning skills and how effective use of learning skills impacts their learning process.

Responsibility

- completes and submits class work, homework, and assignments according to agreed-upon timelines
- takes responsibility for and manages own behavior

Organization

- devises and follows a plan and process for completing work and tasks
- establishes priorities and manages time to complete tasks and achieve goals

Independent Work

- uses class time appropriately to complete tasks
- follows instructions with minimal supervision

Collaboration

- responds positively to the ideas, opinions, values, and traditions of others
- shares information, resources, and expertise and promotes critical thinking to solve problems and make decisions

Initiative

- demonstrates the capacity for innovation and a willingness to take risks
- demonstrates curiosity and interest in learning

Self-Regulation

- sets own individual goals and monitors progress towards achieving them
- seeks clarification or assistance when needed

Assessment

- *Diagnostic assessment* is used at the beginning of a unit to help determine a starting point for instruction.
- *Formative assessment* provides information to students, as they are learning and refining their skills.
- *Summative assessments* at the end of units and a course give students an opportunity to synthesize/apply/demonstrate their learning. Summative assessments are counted toward the student's final mark.

Evaluation Breakdown: Knowledge / Understanding 17.5% Thinking / Inquiry 17.5% Communication 17.5% Application 17.5% <hr/> <hr/> Term Mark 70%	+	Final Activities 30% <hr/> <hr/> Final Mark 100%

Instructional Strategies:

Any course can offer traditional and creative approaches to learning. Current research indicates that students can learn more effectively if given time and opportunity (*Growing Success*, 2010)- teachers incorporate a wide variety of differentiated instructional methods to respond to the varied intelligences and needs of our school community. Students will, through a miscellany of activities, explore the various skills required in this course. As such, many instructional strategies, which include (but are not limited to):

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| • socratic learning | • peer learning and assessment |
| • concept attainment | • written and verbal reflection |
| • collaborative learning | • performance |

When deemed appropriate, either through a student's IEP, or through in-class needs, alternate means of instruction and assessment will be used.