

Grade 7 & 8 French Immersion Mathematics

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Glenview Senior Public School
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Overview

In Grade 7 & 8 Mathematics, students continue to work on the five strands they are familiar with from Junior School:

- Number Sense & Numeration
- Data Management & Probability
- Measurement
- Geometry
- Patterning & Algebra

Though each strand is required to be reported on separately (4 strands per term) in the report card, we embed the strengthening of Number Sense skills and concepts throughout the whole year. Students engage in group, paired, whole class, and individual activities; they work on rich inquiry-based tasks where their problem solving skills are further developed. Students are encouraged to be independent thinkers, to ask good questions, and to seek out patterns in the numbers and information they are presented with.

Texts:

Grade 7: Chenelières Mathématiques 7 - Pearson Addison Wesley

Grade 8: Chenelières Mathématiques 8 - Pearson Addison Wesley

Supplemental Work is employed from a variety of sources such as the Ministry created EduGains, CEMS Waterloo, TIPS4RM, JUMP Math, Mathpower 7 and 8, and online resources.

Technology:

Math teachers employ the use of SMARTBoard technology in the classroom.

Google Classroom is available to support student learning. It will provide links to videos, examples and extra work to complement and reinforce in-class activities.

Extra Help:

Each teacher will post their availability for extra help sessions outside of their classrooms.

If students cannot see their own classroom teacher due to a scheduling conflict, they are encouraged to seek out a math teacher in the same grade team.

Assessments

Formative Assessments:

Students will be observed daily on their contributions to large and small group activities. They may be asked to explain an aspect of what the group is doing, or take on a leadership role in a group. It is therefore very important that they are positively involved in their classroom community as much as possible, come prepared with the materials and mindset for learning and being challenged, and ask good questions. Students are encouraged to maintain a considerate environment that is conducive to the whole class feeling free to ask questions, volunteer answers, and take risks.

Students will be given short and long term homework assignments. In class time is provided to start their work. Any portion of their homework that they are unable to complete should be noted and returned to during their next in class work period or the following evening. The consistent completion of homework is imperative, as it allows for reinforcement of concepts covered in class and the mastery of new concepts.

Students are encouraged to use their class time wisely, as this helps them manage their workload in all subject areas.

Math units may include pop quizzes, quizzes, homework assignments, tests and unit problems.

Summative Assessments:

Each unit will culminate in either a unit test and/or a unit problem.

Unit problem: students are given a real-world problem solving question, and they have to use their understanding of the unit concepts in order to solve the problem.

Unit test: students are presented with a variety of questions that vary in difficulty and approach, from concrete skills to abstract problem solving.

Both forms of summative assessments focus on the four skill areas as outlined in the Ministry Curriculum:

Knowledge and Understanding - subject-specific content acquired in each grade (knowledge), and the comprehension of its meaning and significance (understanding).

Thinking - the use of critical and creative thinking skills/processes:

- planning skills (e.g., understanding the problem, making a plan for solving the problem)
- processing skills (e.g., carrying out a plan, looking back at the solution)
- critical/creative thinking processes (e.g., inquiry, problem solving)

Communication - the conveying of meaning through various oral, written, and visual forms (explaining in verbal or written form, using numbers and symbols, pictures, diagrams, charts, tables, graphs, and concrete materials).

Application - the use of knowledge and skills to make connections within and between various contexts.

*students who require either accommodations or modifications to their program due to an Individual Education Plan, will receive what they need in order for them to be able to demonstrate understanding of concepts covered in class.

Report Cards:

To stay in line with the Ministry of Ontario *Growing Success* document, students' final mark will not be an average of their test scores, but rather a reflection of what is the most consistent achievement and most current to that individual strand. Students understand that attentiveness in class and the quality of their work is an evaluation done by teacher observations and results would be reflected in the Learning Skills portion of the Progress Report/Report Card.

Long Range Plans Grade 7 (Please note the schedule is subject to change)/

Note: Modifications and accommodations will be made to the curriculum outline as outlined in a student's IEP.

<p>Term 1 (including Progress Report)</p> <p>Number Sense</p> <ul style="list-style-type: none"> • Generate multiples and factors • Identify lowest common multiples (LCM) & Greatest Common Factors (GCF) • Evaluate expressions using order of operations • Represent perfect squares and square roots <p>Measurement</p> <ul style="list-style-type: none"> • Converting units of measure • Explain the relationship between exponential notation and area & volume • Develop and implement a formula to determine the area of a trapezoid • Calculate the area of composite two-dimensional shapes <p>Geometry</p> <ul style="list-style-type: none"> • Classify triangles and quadrilaterals by geometric properties • Represent equal angles and lengths using mathematical notation • Construct related lines (parallel, perpendicular, intersecting at various angles) • Construct angle bisectors and perpendicular bisectors <p>Data Management</p> <ul style="list-style-type: none"> • Collecting, organizing, and recording data • Charts, tables, graphs • Mean, median, mode, central tendencies and outliers • Collect and organize discrete or continuous data • Identify bias in collection methods, & misleading graphs <p>Number Sense</p> <ul style="list-style-type: none"> • Compare and order numbers, including integers • Adding, subtracting integers 	<p>Term 2</p> <p>Algebra</p> <ul style="list-style-type: none"> • Linear growing patterns • Pattern rules • Variables, algebraic expressions, algebraic equations • Constant rates – tables of values and graphs <p>Number Sense</p> <ul style="list-style-type: none"> • Adding and subtracting fractions • Multiplication and division by whole numbers • Converting fractions to decimals, multiplying and dividing decimals • Order of operations with decimals • Percent, ratio and rate <p>Probability and Data Management</p> <ul style="list-style-type: none"> • Circle graphs • Probability <p>Geometry</p> <ul style="list-style-type: none"> • Cartesian plane (4 quadrants) • Transformations, particularly dilatations • Designs, tiling a plane <p>Number Sense</p> <ul style="list-style-type: none"> • Ratio • Rate
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Long Range Plans Grade 8 (Please note the schedule is subject to change)

<p>Term 1 (including Progress Report)</p> <p>Number Sense</p> <ul style="list-style-type: none"> • Prime and composite numbers • Prime factorization • Scientific notation • Powers of ten • Order of operations <p>Measurement</p> <ul style="list-style-type: none"> • Converting units of measure • Circumference and area of circles • Volume and surface area of cylinders <p>Geometry</p> <ul style="list-style-type: none"> • Quadrilaterals • Angle properties with intersecting and parallel lines • Angles in a triangle <p>Data Management</p> <ul style="list-style-type: none"> • Collect, organize, record data • Frequency tables and Histograms • Charts, tables, and graphs • Bias and inferences • Mean, median, mode 	<p>Term 2</p> <p>Number Sense</p> <ul style="list-style-type: none"> • Fractions and decimals • Ratio and rate • Percent tax discount commission • Add, subtract, divide, and multiply integers <p>Patterning and Algebra</p> <ul style="list-style-type: none"> • Co-ordinate grid • Variables, expressions, equations • Translating statements • Like terms, distributive property • Solving linear equations • Representing a general term in a linear sequence <p>Geometry</p> <ul style="list-style-type: none"> • Measuring Squares • Pythagorean Theorem • Special Triangles <p>Probability</p> <ul style="list-style-type: none"> • Experimental and Theoretical Probability • Tree Diagrams • Simulations
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