



Windsor Secondary School

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At Windsor Secondary School we strive to treat each other with respect and dignity, appreciate diversity, actively pursue lifelong learning through different opportunities and value everyone's right to work and learn in a safe, supportive, challenging environment.

COURSE OUTLINE

SUBJECT: Foundations of Mathematics 11

BIG IDEAS:

Similar shapes and objects have proportional relationships that can be described, measured, and compared.

Optimization informs the decision-making process in situations involving extreme values.

Logical reasoning helps us discover and describe mathematical truths.

Statistical analysis allows us to notice, wonder about, and answer questions about **variation**.

CURRICULAR COMPETENCIES:

Students are expected to be able to do the following:

Reasoning and analyzing

- Develop thinking strategies to solve puzzles and play games
- Explore, analyze, and apply mathematical ideas using reason, technology, and other tools
- Estimate reasonably and demonstrate fluent, flexible, and strategic thinking about number
- Model with mathematics in situational contexts
- Think creatively and with curiosity and wonder when exploring problems

Understanding and solving

- Develop, demonstrate, and apply mathematical understanding through play, story, inquiry, and problem solving
- Visualize to explore and illustrate mathematical concepts and relationships
- Apply flexible and strategic approaches to solve problems
- Solve problems with persistence and a positive disposition
- Engage in problem-solving experiences connected with place, story, cultural practices, and perspectives relevant to local First Peoples communities, the local community, and other cultures

Communicating and representing

- Explain and justify mathematical ideas and decisions in many ways
- Represent mathematical ideas in concrete, pictorial, and symbolic forms
- Use mathematical vocabulary and language to contribute to discussions in the classroom
- Take risks when offering ideas in classroom discourse

Connecting and reflecting

- Reflect on mathematical thinking
- Connect mathematical concepts with each other, other areas, and personal interests
- Use mistakes as opportunities to advance learning
- Incorporate First Peoples worldviews, perspectives, knowledge, and practices to make connections with mathematical concepts

CONTENT:

Students are expected to be able to do the following:

- forms of mathematical reasoning
- angle relationships
- graphical analysis of linear inequalities, quadratic functions, and systems of equations
- optimization
- applications of statistics
- scale models
- financial literacy: compound interest, investments and loans

RESOURCE MATERIALS:

Foundations of Mathematics 11 (Nelson)

Graph paper

Scientific calculator required

POLICIES AND PROCEDURES:

1) PREPARATION FOR CLASS

It is the student's responsibility to arrive for each class **on time** with their notebook, pencils, calculator, and textbook. Lack of preparation will not be accepted as a valid reason for excusal from course work.

2) ABSENCES

Missing classes for any reason will have an impact on learning, assessment, and evaluation. Students absent from class, whether excused or unexcused, are solely responsible for obtaining and completing any missed assignments, work, or homework. **Your teacher is not required to make special arrangements for unexcused absences.**

- a) Students absent for illness, medical appointments, and other emergencies **must** contact their teacher **on the day they return to school** to submit overdue assignments, schedule missed tests or quizzes, and to receive missed work.
- b) Students absent for school related activities (ex. field trips, work experience, sports trips, etc.), **must** inform their teacher of this absence **well in advance** of the activity, in order to receive specific instructions on work that will be missed and the rescheduling of missed tests and quizzes.
- c) Students absent for any other reason, including family vacations, are considered **unexcused**. Any work, tests, or quizzes missed for these absences may result in receiving a **zero** for that activity.

3) LATE SUBMISSIONS

Students who submit assigned work **after** it has been reviewed and returned to the class receive an unfair competitive advantage. Therefore, assignments submitted after the return date will receive a grade of 'completed' in place of a letter grade.

4) SCHOLANTIS PORTAL

Students are required to check the class page on the Scholantis Portal (accessible through the school home page) on a daily basis. All students will receive training on how to access and use the portal. Students are responsible for all content posted to the portal, including class notes, quizzes, tests, due dates, assignment outlines, and other announcements.

(Student signature)

(Parent / Guardian signature)

Units of Study

Unit of Study	Textbook Chapters
Unit 1 Mathematical Reasoning	Chapter 1
Unit 2 Trigonometry	Chapters 2, 3, and 4
Unit 3 Proportional Reasoning	Chapter 8
Unit 4 Inequalities	Chapter 6
Unit 5 Quadratics	Chapter 7
Unit 6 Statistics	Chapter 5
Unit 7 Financial Literacy	Supplemental

ASSESSMENT

Gallery Walks	5%
Quizzes	5%
Assignments	20%
Unit Tests	50%
Final Exam	20%

Students will write a final exam in June. The exam date(s) will be communicated at least three weeks in advance. The final exam is a mandatory final assessment that can only be excused with prior administrative approval.