MATHEMATICS 9 COURSE OUTLINE: 2022 - 2023

TEACHERS: M. Burns, T. Matchett

WEBSITE:

Microsoft Teams will be used for lessons and class material.

MATERIALS:

- a scientific calculator (MUST have your own, NO cell phones or tablets during class)
- a binder with loose-leaf and graph paper for notes, homework, evaluations, etc.
- pencils, erasers and a ruler

ATTENDANCE:

Although the structure of this year is different, attendance is very important. Should a student miss a day of instructions, be it in person or at home learning, students are responsible for all missed work. You are not attending school ever second day, one day you are at school receiving in person learning and the next day you are doing self-learning. Remember the self-learning attendance is just as vital as the in-person attendance. We will be doing all assessments in class so if a student misses a test, it will be the responsibility of the student to present a satisfactory written excuse and to arrange to write the test on their own time.

TOPICS:

UNIT 1: Rational Numbers (Chapter 3)	UNIT 6: Linear Relations (Chapter 4)
UNIT 2: Square Roots and Surface Area (Chapter 1)	UNIT 7: Similarity & Transformations (Chapter 7)
UNIT 3: Powers and Exponents Laws (Chapter 2)	UNIT 8: Circle Geometry (Chapter 8)
UNIT 4: Polynomials (Chapter 5)	UNIT 9: Probability & Statistics (Chapter 9)
UNIT 7: Linear Equations and Inequalities (Chapter 6)	

****See Page 2 for the "Required Curriculum Outcomes" for the 2022-2023 school year****

EVALUATION:		
Tests / Quizzes / Assignments	70%	
Demonstration of learning	30%	
* A mark of 60% is required to receive a passing grade. *		

MATH HELP CENTRE:

This year, extra help will be offered to all grade 9 and 10 math students in room 4157.

- Hours of operation
 - Monday to Thursday 12: 30 12:55



Mathematics 9

The curriculum document can be accessed here / Le programme d'études est accessible ici.

Required Outcomes	Remaining Outcomes
N1: Demonstrate an understanding of powers with integral bases (excluding base 0) and whole number exponents by: representing repeated multiplication using powers; using patterns to show that a power with an exponent of zero is equal to one; solving problems involving powers.	N4: Explain and apply the order of operations, including exponents, with and without technology.
	N6: Determine an approximate square root of positive rational numbers that are non-perfect squares.
N2: Demonstrate an understanding of operations on powers with integral bases (excluding base 0) and whole number exponents.	PR4: Explain and illustrate strategies to solve single variable linear inequalities with rational coefficients within a problem-solving context.
N3: Demonstrate an understanding of rational numbers by: comparing and ordering rational numbers; solving problems that involve arithmetic	PR5: Demonstrate an understanding of polynomials (limited to polynomials of degree less than or equal to 2).
operations on rational numbers.	SS1: Solve problems and justify the solution
N5: Determine the square root of positive rational numbers that are perfect squares.	strategy using circle properties, including: the perpendicular from the centre of a circle to a chord bisects the chord; the measure of the central angle is equal to twice the measure of the inscribed angle subtended by the same arc; the inscribed angles subtended by the same arc are congruent; a tangent to a circle is perpendicular to the radius at the point of tangency.
PR1: Generalize a pattern arising from a problem- solving context using linear equations and verify by substitution.	
PR2: Graph linear relations, analyze the graph and interpolate or extrapolate to solve problems.	
PR3: Model and solve problems using linear equations, pictorially and symbolically.	SS5: Demonstrate an understanding of line and rotation symmetry.
PR6: Model, record and explain the operations of addition and subtraction of polynomial expressions, pictorially and symbolically (limited to	SP1: Describe the effect of: bias; use of language ethics; cost; time and timing; privacy; cultural sensitivity on the collection of data.
polynomials of degree less than or equal to 2).	SP2: Select and defend the choice of using either
PR7: Model, record and explain the operations of multiplication and division of polynomial	a population or a sample of a population to answer a question.
expressions (limited to polynomials of degree less than or equal to 2) by monomials, pictorially and	SP3: Construct, label, and interpret histograms to solve problems.
symbolically.	SP4: Develop and implement a project plan for
SS2: Determine the surface area of composite 3-D objects to solve problems.	the collection, display and analysis of data by: formulating a question for investigation; choosing a data collection method that includes social considerations; selecting a population or a sample; collecting the data; displaying the
SS3: Demonstrate an understanding of similarity of polygons.	
SS4: Draw and interpret scale diagrams of 2-D shapes.	collected data in an appropriate manner drawing conclusions to answer the question.
	SP5: Demonstrate an understanding of the role of probability in society.