CROCUS PLAINS REGIONAL SECONDARY SCHOOL
COURSE OUTLINE AND ASSESSMENT GUIDE

Course Name: *GRADE 10 ESSENTIAL MATHEMATICS (MES20)*

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Course Description: *Grade 10 Math Essentials*

Grade 10 Essential Mathematics is intended for students whose post-secondary planning does not include a focus on mathematics and science-related fields. Grade 10 Essential Mathematics (20S) is a one-credit course consisting of two half-credits each emphasizing consumer applications, problem solving, decision making, and spatial sense.

Students are expected to work both individually and in small groups on mathematical concepts and skills encountered in everyday life in a technological society.

Units of Study

Unit Title	Learning Outcomes	Assessment Plan	Proposed Time (based on ~ 75 school days)
Analysis of Numbers	Analyze puzzles and games that involve spatial reasoning and number sense using problem-solving strategies.	*Formative Assessment* Assessment may include: Daily classroom activities *Summative Assessment* None. Skills learned will be integrated into other outcomes	Integrated over whole semester
Personal Finance	Demonstrate an understanding of calculations for gross pay and net pay earned through income sources including wages, salary, contracts, commissions, & piecework.	*Formative Assessment* Assessment may include: • Mental Math Exercises • Critical Thinking • Self-Assessment • Reflection Questions • Group Problem-Solving • Conferencing *Summative Assessment* Unit Quizzes/Projects	Approx. 10 days

Consumer Decisions	Solve problems that include unit pricing and currency exchange, using proportional reasoning.	*Formative Assessment* Assessment may include: • Mental Math Exercises • Critical Thinking • Self-Assessment • Reflection Questions • Group Problem-Solving • Conferencing *Summative Assessment* Unit Tests/Quizzes/Projects	Approx. 5 days
Measurement	Demonstrate an understanding of the Systeme International (SI) by describing the relationships of the units for length, area, volume, capacity, and mass. Demonstrate an understanding of the imperial system by: describing the relationships of units for length, area, volume, capacity, and mass; comparing US and British imperial units for capacity; applying strategies to convert between imperial and SI units Solve and verify problems that involve linear measurements, including decimal and fractional measurements. Solve problems that require the manipulation and application of formulas related to converting measurement.	*Formative Assessment* Assessment may include: • Mental Math Exercises • Critical Thinking • Self-Assessment • Reflection Questions • Group Problem-Solving • Conferencing *Summative Assessment* Unit Tests/Quizzes/Projects	Approx. 20 days
2D Geometry	Solve problems that involve area measurements of regular, composite, and irregular 2D shapes, including decimal and fractional measurements. Solve problems that require the manipulation and application of formulas related to perimeter & area	*Formative Assessment* Assessment may include: • Mental Math Exercises • Critical Thinking • Self-Assessment • Reflection Questions • Group Problem-Solving • Conferencing *Summative Assessment* Unit Tests/Quizzes/Projects	Approx. 10 days

Transformations	Demonstrate an understanding of transformations on a 2-D shape, including translations, rotations, reflections, and dilations.	*Formative Assessment* Assessment may include: • Mental Math Exercises • Critical Thinking • Self-Assessment • Reflection Questions • Group Problem-Solving • Conferencing *Summative Assessment* Unit Tests/Quizzes/Projects	Approx. 5 days
Angle Construction	Demonstrate an understanding of angles, including acute, right, obtuse, straight and reflex, by drawing, replicating & constructing, bisecting, and solving problems. Solve problems that involve parallel, perpendicular, and transversal lines, and pairs of angles formed between them.	*Formative Assessment* Assessment may include: • Mental Math Exercises • Critical Thinking • Self-Assessment • Reflection Questions • Group Problem-Solving • Conferencing *Summative Assessment* Unit Tests/Quizzes/Projects	Approx. 10 days
Trigonometry	Solve problems involving right triangles using Pythagorean theorem. Demonstrate an understanding of primary trigonometric ratios (sine, cosine, tangent) by applying similarity to right triangles, generalizing patterns from similar right triangles, and solving problems. Solve problems that require the manipulation and application of formulas related to the Pythagorean theorem & primary trigonometric ratios.	*Formative Assessment* Assessment may include: • Mental Math Exercises • Critical Thinking • Self-Assessment • Reflection Questions • Group Problem-Solving • Conferencing *Summative Assessment* Unit Tests/Quizzes/Projects	Approx. 15 days

Assessment Guidelines

There are various purposes for assessment:

- Assessment *for* learning **(formative assessment)**: where assessment helps teachers gain insight into what students understand in order to plan and guide instruction, and provide helpful feedback to students.

- Assessment *of* learning **(summative assessment)**: where assessment informs students, teachers and parents, as well as the broader educational community, of achievement at a certain point in time in order to celebrate success, plan interventions and support continued progress.

Academic Achievement

Grades will be calculated on summative assessment information only. The final calculation will be a fair reflection of a student's achievement of the learning outcomes.

Term Portfolio 85%

- **Term Portfolio & Conferences (2)**

Final Assessment 15%

- **Final Exam**

Learning Behaviours

Assessment and reporting of learning behaviors will be according to the Brandon School Division Learning Behaviors Rubric.