IB MYP MATH YEAR 3 - MATH 8
TEACHERS: M. LeSieur, E. Poulton & K. Brady

Teacher: Ms. Brady
Email: kbrady@sd45.bc.ca
Class website: http://brady45.weebly.com/

DESCRIPTION OF COURSE

Mathematics is one way of trying to understand, interpret, and describe our world. Components integral to the study of math 8 include data analysis, linear relationships and equations, ratios, fractions, integers, geometry, and probability.

Mathematics 8 focuses on improving problem solving skills and applying math concepts to real-world situation. Throughout the year students are improving their skills to effectively study, as well as improving their use of critical and independent thought when analyzing and solving problems. They are learning how to break down more complex problems into smaller components.

These are *possible* inquiries that may be explored throughout the year:
The four units are based on the 2015 New BC Curriculum's Math Key Concepts

https://curriculum.gov.bc.ca/curriculum/Mathematics

Unit & Related Topics	**Numbers** *Integers, Fractions, Percentages, Rates, Ratios and Proportional Reasoning*	**Patterns and Relations** *Solving linear equations & Linear Relations*	**Spatial Sense** *Pythagorean relationships, Volume & Surface Area*	**Statistics and Probability** *Probability & Data Analysis*
Statement of Inquiry	Students will use logical mathematical process to simplify and understand quantities in order to make informed financial decisions.	Students will discover mathematical relationships represent and model various aspects of the world, allowing them to make predictions	Students will understand that form and shape in space can enhance creativity.	Students will learn to establish patterns and examine change in order to understand relationships.
Key Concept	Logic	Relationships	Form	Relationships
Related Concept(s)	quantity and simplification	representation and models	space and measurement	patterns and change
Global Context	identities and relationships	scientific and technical innovation	orientation in space and time	fairness and development
Inquiry Questions	How do I know if I'm getting a good deal? Why is estimation useful? How is math used in financial planning?	How can math be used to predict the future? If we can determine mathematical trends, how will that affect of decisions?	How does the space affect design? Are we using our resources wisely?	How do we use statistics and probability to explain trends in society?

Textbook: Mathlinks 8: McGraw-Hill - Students have the choice to borrow a textbook from the school or to purchase a pdf version of the textbook for their own personal device for $5

Workbook: Mathlinks 8: McGraw-Hill - Students will receive a workbook at the beginning of the year for $10. If the workbook is not used and not damage, students will receive their $10 back at the end of the year.

Required Materials

- Calculator
- Binder and lined paper (graphing paper is recommended)
- Pencil, eraser and ruler (two or three coloured pencils are recommended)
- personal device (laptop)

METHODOLOGY and ASSESSMENT

Throughout the year, students will complete a variety of assessments.
The assessment process reveals what a student understands, knows and can do. The evaluation process indicates the quality of performance based on learner outcomes (curriculum). Assessment and evaluation provide ongoing feedback to teachers, students and parents in order to enhance student learning.

Possible forms of assessment this year may include:

Formative (monitor student progress)	**Summative (evaluate achievement of learning outcomes)**
Homework	Unit Tests
Warm up questions	Investigations, Projects and Real Life Problems
Checkpoints (quizzes)	Midyear and Final exams

Assessment Criteria

Criterion A	**Knowing and Understanding**	*To achieve an exemplary level I will be able to:* **select** appropriate mathematics when solving challenging problems in both familiar and unfamiliar situations **apply** the selected mathematics successfully when solving these problems generally **solve** these problems correctly.
Criterion B	**Investigating Patterns**	*To achieve an exemplary level I will be able to:* **select** and apply mathematical problem-solving techniques to discover complex patterns **describe** patterns as relationships and/or general rules consistent with correct findings **verify** and **justify** these relationships and/or general rules.
Criterion C	**Communicating**	*To achieve an exemplary level I will be able to:* consistently **use** appropriate mathematical language **use** different forms of mathematical representation to consistently present information correctly move effectively between different forms of mathematical representation **communicate** through lines of reasoning that are complete and coherent present work that is consistently **organized** using a logical structure
Criterion D	**Applying Mathematics in Real-Life Contexts**	*To achieve an exemplary level I will be able to:* **identify** the relevant elements of the authentic real-life situation **select** appropriate mathematical strategies to model the authentic real-life situation **apply** the selected mathematical strategies to reach a correct solution **explain** the degree of accuracy of the solution **explain** whether the solution makes sense in the context of the authentic real-life situation.

Reporting

Students will receive a term grade on their most recent and most consistent level of achievement each term. At the end of the year, there will be a final exam worth 10% of their year end mark.

Extra Help

The Math Department publishes a schedule of when extra help is available. This schedule is posted in every math classroom and students are welcome to see any math teacher for help. If students would like to make an

appointment with me specifically I am available most morning at 8am and lunch hours. Please email me or talk to me in class to find a time to meet. You are responsible for your success in this course