***IB MYP MATH YEAR 5 – APPRENTICESHIP AND WORKPLACE MATH 10***

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***DESCRIPTION OF COURSE***

Mathematics is one way of trying to understand, interpret, and describe our world. Components integral to the study of AW Math 10 include unit prices, currency exchange, earning an income, length, area, volume, mass, temperature, angles, parallel lines, similar figures and trigonometry of right triangles.

Apprenticeship & Workplace Math 10 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:

***COURSE UNITS***

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| ***Curriculum*** | ***Unit Question*** | ***Area of Interaction and how it shapes the content***  |
| Unit Prices & Currency Exchange | How does food create connections?  | Community and Service.  |
| Earning an Income | How can I make a living that involves one of my passions? | Human ingenuity |
| Length, Area & Volume | In what way can mathematics influence natural, built and virtual environments? | Environment |
| Mass, Temperature & Volume | How is measurement universal? | Community and Service |
| Angles & Parallel Lines | How can I use geometry to strategize? | Human ingenuity |
| Similarity of Figures  | How can I influence my community? | Community and Service |
| Trigonometry of Right Triangles | How high is too high to measure? OR How far is too far to measure? | Human Ingenuity.  |

Please refer to <http://www.bced.gov.bc.ca/irp/> for a more detailed description of the Ministry of Education’s requirements.

***METHODOLOGY and ASSESSMENT***

Throughout the year, students will complete a variety of assessments including both formative and summative assessments. The assessment process reveals what a student understands, knows and can apply. 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:

**Mark Breakdown:**

Tests: 40%

Quizzes: 20%

Assignments and Projects 20%

Three terms will be graded cumulatively: 80%

Provincial Exam: 20%

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| **Formative** **(monitor student progress)** | **Summative (evaluate achievement of learning outcomes)** |
| Homework | Unit Exams |
| Warm up questions | Investigations |
| Checkpoints (quizzes) | Projects |
| Self, peer, and teacher reflection and evaluation providing ongoing Feedback  | Assignments |

Mathematics in the middle years program MYP

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| Criterion A | Knowledge and Understanding | ★Know and understand concepts, and demonstrate skills, from the five branches of mathematics (number, algebra, statistics, and probability, geometry and trigonometry, and discrete mathematics)★Be able to understand and use a variety of mathematical forms and should have the ability to move confidently between them.  |
| Criterion B | Application and Reasoning | ★Select and use appropriate mathematical knowledge when investigating problems ★Select and apply appropriate mathematical skills and techniques when investigation problems★Recognize patterns and structures and describe them as relationships or general rules when investigating problems★Draw conclusions consistent with finding★Justify mathematical relationships when investigating problems |
| Criterion C | Communication | ★Appropriate language and symbols ★A variety of media and technologies |
| Criterion D | Reflection | ★Reflect on their methods and processes★Consider possible alternative approaches ★Evaluate the significance and reliability of their finding and the findings of others |

**Class website:**www.mrlawsonscience.weebly.com/

**Textbook:** Mathworks 10, *Pacific Educational Press*

**Required Materials**

**•** Scientific Calculator

• Binder and lined paper (graphing paper is recommended)

• Pencil, eraser and ruler (two or three coloured pencils are recommended)

**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 7:30 am in Portable 1 or by appointment. Please email me or talk to me in class to find a time to meet.