******Rockridge Secondary School

### IB MYP Year 5 - Mathematics 10

### (Pre-Calculus & Foundations 10)

**Course Information 2018-2019**

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**Course Description:** The Foundation of Math and PreCalculus 10 course will adhere to the provincially prescribed curriculum as documented in the *Mathematics 10-12 (2018)*. A detailed summary of the BC math curriculum can be obtained at the BC Ministry of Education website: <https://curriculum.gov.bc.ca/curriculum/Mathematics>. Students will be expected to meet the learning outcomes (content standards) of this curriculum.

**Textbook:** McGraw-Hill Ryerson, Mathematics 10. McAskill, et al, 2010.

**Course Content:** The following are *possible* inquiries that may be explored this year. All topics will be addressed.

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| --- | --- | --- | --- |
| ***Unit*** | ***Statement of Inquiry*** | ***Topics*** | ***Global Context*** |
| Algebra & Number | Modelling different forms of polynomials to inform others from their own creative perspective. Simplification of patterns within a system can be used to explore population changes. | Exponents & RadicalsPolynomials | Human ingenuity |
| Relations & Functions | The beauty of linear relationships can be crafted and represented through a variety of models using your own artistry. | Linear Relations & FunctionsLinear Equations & Graphs | Health and social education |
| Systems of Equations | Different methods and models are used to find relationships between systems to simplify problems. | Solving Systems of Linear Equations | Scientific and technical innovation |
| Trigonometry | My understanding of logic and measurement allows me to discover and justify my own designs and models. | Primary Trigonometric Ratios |  Scientific and technical innovation |
| Arithmetic Sequences |  | Arithmetic sequences, series, sum of series and applications |  |
| Financial Literacy |  | Gross and Net pay | Career Education |

**Assessment and Evaluation:**

**Assessment Criteria (MYP)**

|  |  |  |
| --- | --- | --- |
| 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.
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| 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
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| Criterion C | Communication | * Appropriate language and symbols
* A variety of media and technologies
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| 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
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The assessment criteria are used with a variety of assessment tasks including tests, quizzes, homework and projects. Projects may include investigations and real life problem solving. Students are encouraged to keep a **record of their marks** using a marks page.

Summative assessment tasks (to evaluate the achievement of learning outcomes) are given at the conclusion of each topic. Formative assessment (monitoring of student progress) is ongoing and includes homework and quizzes. **Unexcused absences will result in a mark of** **ZERO for that test or quiz**.

**Term Evaluation:** Summative Assessment Tasks (Exams, Tests & Major Projects): 70 %

 Formative Assessment Tasks (Quizzes, Classwork Assignments & Projects): 30%

**Final Grade Calculation:** Terms are weighed equally. The final exam is worth 20%

**Homework:** Homework will be assigned daily. Assignments will be periodically checked and used towards the term mark. Students’ work must be shown clearly and neatly (answers alone will receive no credit), completed it in pencil, marked and corrected. The amount of homework time will depend on the individual student’s ability and mastery of the concepts taught, and on that student’s appropriate use of class working time.

**Quizzes:** Quizzes will be given on a regular basis. Students will have greater success if homework and review is completed daily. Not all quizzes are announced.

**Absences:** All absences from the class must be excused by a phone call to the office **on** the day of the absence. Students are responsible for checking the class website and getting caught up with the homework and material missed. If a quiz is missed, the student should check with the teacher immediately upon return to school (even if they do not have math that day) to arrange to write the quiz. If a test is missed, it is expected that the student write the test upon returning to their class.

**Lates**: Lates to class are not acceptable. It is inappropriate and inconsiderate to interrupt the learning of other students. Students must be seated and prepared to work when the final bell has sounded.

**Materials:** Students must bring the following to every class:

* Binder with loose – leaf lined paper and dividers OR a notebook
* Pencils, coloured pen, eraser, protractor and ruler
* Scientific calculator (Mandatory) or Graphing Calculator
**(phones will not accepted as a calculator)**
* Textbook and workbook

## Classroom Behaviour: Mature and considerate behaviour is expected in class. Students should be courteous, co-operative, and respectful to others. Students must keep all food and drink out of the classroom; bottled water is the only exception. Cell phones and music players should not be visible or heard in the classroom.

**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.

We look forward to an excellent year!