Name: Date: Block:

# Course Outline 2017/2018

**Course:** Math 8
**Teacher:** Mrs. Chen
**Email:** lchen@wvschools.ca

| **Block:** | 1-2 | 1-3 | 2-1 | 2-3 |
|---|---|---|---|---|
| **Room:** | W201 | W214 | W201 | W201 |
| **Google Classroom:** | dpou1bc | wqq4whn | iytullb | c47k95 |

**BRING** the following to class everyday….

- **Device & Binder**
- **Pencil Case:** Pens, pencils, ruler & calculator
- **Agenda:** Record homework in it every class

**DO** the following in class everyday….

- **Date & organize** your notes
- Be **punctual** and ready to learn
- Use your **devices appropriately**

**Workbook:** Mathlinks 8 (McGraw-Hill) ***$10 in cash or cheque*** *(To: Rockridge Secondary School) by* ***September 15***

**Welcome to Math 8!**

In this course you will get the opportunity to expand your understanding of mathematical concepts and develop skills and attitudes for mathematical discovery and inquiry. Together, we will investigate mathematical questions while building on your sense of wonder and curiosity about the world. We hope to create an active and meaningful math program that honours the *International Baccalaureate* fundamental concepts of international mindedness, intercultural awareness, **communication, and holistic learning**.

**Description of the Course:**

| **Unit & Related Topics** | **Understanding Numbers:** Integers, Fractions, Percentages, Rates, Ratios & Proportional Reasoning | **Patterns & Relations:** Linear Equations & Linear Relations | **Spatial Sense:** Pythagorean Relationships, Surface Area & Volume | **Statistics & Probability:** Probability & Data Analysis |
|---|---|---|---|---|
| **Proposed Timeframe** | Sept. 18/19 to Nov. 23/24 | Nov. 27/28 to Jan. 18/19 | Feb.5/6 to Apr 30/May1 | May 7/8 to June 14/15 |
| **Key Concept** | Logic | Relationships | Form | Relationships |
| **Related Concepts** | Quantity & Simplification | Representation & Models | Space & Measurement | Patterns & Change |
| **Global Context** | Identities & Relationships | Scientific & Technical Innovation | Orientation in Space & Time | Fairness & Development |
| **Statement of Inquiry** | Students will use **logical** mathematical processes to **simplify** & understand **quantities** in order to make informed financial decisions. | Students will discover mathematical **relationships** by **representing & modelling** various aspects of the world, allowing them to make predictions. | Students will understand that **form** and shape in **space** can enhance creativity while **measuring** all dimensions. | Students will learn to establish **patterns** & examine **change** in order to understand **relationships**. |
| **Inquiry Questions** | * How do I know if I'm getting a good deal?<br>* Why is estimation useful?<br>* How is math used in financial planning? | * How can math be used to predict the future?<br>* If we can determine mathematical trends, how will that effect decisions? | * How does the space affect design?<br>* Are we using resources wisely? | * How do we use statistics and probability to explain trends in society?<br>* Are there different ways to interpret data based on a particular bias? |

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**Types of Assessment:**

| Formative Assessment | Summative Assessment |
|---|---|
| Checkpoints (Quizzes) | Projects |
| Exit slips | Tests |
| Activities | Lab Reports |
| Discussions | Mid-year & Final Exams |
| Homework | In-class Investigations |

**Criteria for Assessment:**

| (0) | Beginning (1-2) | Developing (3-4) | Accomplished (5-6) | Exemplary (7-8) |
|---|---|---|---|---|

**Criterion A: Knowledge and Understanding**

- **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**

- **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**

- 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**

- **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

**Expectations:**

* **If you are absent** on any given day then you are required to **keep up with the class** via the website and Google Classroom.

* **If you are absent** on the day that a **summative piece of assessment** is due, a valid note is needed and you will be allowed to complete the missed assessment upon the day that you return.