Burnaby Mountain Secondary **Ms. V. Norris**



**Science 8 Course Outline**

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**Objectives: Twitter: @adventuresinbio**

* To build a culture of learning that is fun, positive,

collaborative & challenging ☺

* To develop the skills & mindset of a critical thinker
* To consider the impacts of science & technology on individuals, society and the environment

**Textbook:** BC Science 8 (McGraw-Hill Ryerson, © 2006, $60.00)

BC Science 8 Connections (McGraw-Hill Education, © 2016)

**Content:** \*Topics may not be covered in this particular order. Some chapters and curriculum units are subject to change & some may be covered in greater depth than others as the emphasis is on developing skills rather than content centered.

**NOTE:** This science course may provide students with the opportunity to perform laboratory dissections involving preserved specimens. Students always have the choice to opt out of such activities but they may be required to complete an alternative learning activity (virtual lab, watch a video, or other task). Although the science teachers want to emphasize the value of the hands-on experience, we respect the right for students to choose and they will not be penalized for choosing the alternative activity.

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| **INTRODUCTION** | Lab Safety  The Scientific Method | Pages xviii-xxi |
| **SCIENCE PROCESS SKILLS** | Critical Thinking & Communication  Personal and Social Responsibility  Ethical Decision Making | (Integrated throughout all units) |
| **LIFE SCIENCE** | The Characteristics of Living Things & the Types of Cells  The Immune System | Chapter 1  Chapter 3 |
| **PHYSICAL SCIENCE**    (Optics)  (Fluid Dynamics) | Properties of light  Optical systems  Human Vision  States of Matter & Density  Forces, Pressure & Heat | Chapter 4  Chapter 5  Chapter 6  Chapter 7  Chapter 8 |
| **CHEMICAL SCIENCE** | Atomic Theory & Models | *BC Sci8 Connections* |
| **EARTH**  **SCIENCE** | Geological Formations/Events  Layers of The Earth | *BC Sci8 Connections* |

* **Planning & Conducting**



**Curricular Competencies:**

***In Science 8 we will emphasize building the following skills:***

* **Questioning & Predicting**
* **Processing & Analyzing Data**
* **Evaluating Information and Data**



* **Innovating & Applying**
* **Communicating**

**Work Habits & Assessment:**

Report cards will include a work habit, a comment and a letter grade.

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| **Good** | **Satisfactory** | **Needs Improvement** |
| * On time for class, with all materials * Actively involved in learning; asks Qs, participates respectfully, * Completes all work to the best of ability * Uses class time wisely * Responsible use of equipment &   Personal technologies responsibly | * Usually on time for class, with materials * Usually actively involved in class, participates respectfully, works w/others * Completes most work to the best of ability * Usually uses class time wisely * Sometimes needs reminders to use equipment or personal technologies responsibly | * Often late for class, missing materials / in excused absences * Needs support to become involved in class activities/participate/ to work with others * Work is incomplete, lacks effort or copied * Struggles to use class time wisely * Equipment is not cleaned up and/or Personal technologies interfere with learning |

Class work may involve; labs, quizzes, projects, portfolio work and self- reflections to demonstrate skill development & growth. All Science 8s will design and test a Scientific Inquiry based on their own unique question.

Feedback on learning will be given using the curricular competencies & proficiency scale.

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| **Emerging** | | **Developing** | | **Proficient** | | **Extending** |
| *Does not yet demonstrate a basic understanding of concept. Struggles to use key vocabulary or ideas accurately. Substantial errors or gaps throughout work. More practice is required.* | | *Basic understanding of concepts shown. Can show meaning of some key ideas & vocab. Errors / inconsistency show some missing elements. Inconsistent ability to identify & explain connections. More practice is recommended.* | | *Solid understanding of concepts shown. Can apply & use examples for key vocab. Few errors. Connections can be made & explained with some solid details.* | | *Sophisticated understanding & mastery shown. Strong application of terms, images & examples with strong details. Strong connections identified and explained with strong reasoning/evidence.* |
| I | C- | C | C+ | B | A | A+ |

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|  | | | | | | |
| **Emerging** | | **Developing** | | **Proficient** | | **Extending** |
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| I | C- | C | C+ | B | A | A+ |