|  |  | **Course Outline and Evaluation Summary****Course Code**  |  |
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|  | Title of Course: Grade 9 Science SNC1W  | 416-395-3210 |
|  | Department: Science |  |

| **Course Description** |
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| This course enables students to develop their understanding of concepts related to biology, chemistry, physics, and Earth and space science, and to relate science to technology, society, and the environment. Throughout the course, students will develop and refine their STEM skills as they use scientific research, scientific experimentation, and engineering design processes to investigate concepts and apply their knowledge in situations that are relevant to their lives and communities. Students will continue to develop transferable skills as they become scientifically literate global citizens. |

| **Course Evaluation**Course evaluations incorporate one or more of the achievement categories (KICA). A brief description of each category can be found [here](https://www.dcp.edu.gov.on.ca/en/assessment-evaluation/categories-of-knowledge-and-skills). The final grade is calculated using the weighted percentages below. |
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| **Term Work:** | **A variety of tasks where you show your learning and have marks assigned using the Achievement Categories/Strands** | **Summative****Evaluation:** | **Marked summative tasks which assess your learning on the entire course** |
| 70% | 20 % | Knowledge & Understanding | 30% | 15% | Summative project |
| 20 % | Thinking & Inquiry |
| 10 % | Application | 15% | Final Exam  |
| 20 % | Communication |

| **Learning Skills** |
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| Learning skills provide Information to help students understand what skills, habits & behaviors are needed to work on to be successful. These are not connected with any numerical mark. A brief description of each skill can be found [here](http://www.edu.gov.on.ca/eng/policyfunding/growsuccess.pdf#page=17). **Responsibility, Organization, Independent Work, Collaboration, Initiative and Self-Regulation**E – Excellent G – Good S – Satisfactory N – Needs Improvement |

| **Required Materials:** Any educational resource required for this course will be provided by the school. It is the student’s responsibility to come to class with these materials.  |
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| **School/Departmental/Classroom Expectations** |
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| **Attendance:** The student is expected to attend class on time. Parents/guardians will be contacted if lates/attendance becomes an issue/hindrance. If the student knows about an absence in advance, they should contact the teacher.**Plagiarism/Cheating:** A mark of 0 will be assigned for any work submitted that does not belong to the student. A mark of 0 will be assigned to a student who was found to have cheated. Parents/guardians will be informed.**Missed Work:** If a student is absent from class, (e.g. illness, sports team) it is **their** responsibility to find out what they have missed and to catch up. The student is responsible for completing all of the work that was missed due to an absence. If a student misses an assignment or test without a legitimate explanation and documentation, marks up to and including the full value of the evaluation may be deducted. Make-up tests must be arranged to be written.**Late Work:** Late work may result in a deduction of marks up to and including the full value of the evaluation. |

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| **Course Assessment Tasks** |
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| ***Unit/Topic/Strand*** |  ***Big Ideas*** | ***Major Assignments / Evaluations*** | ***Estimated Duration*** |
| Unit 1 - Chemistry: The Nature of Matter | * assess social, environmental, and economic impacts of the use of elements, compounds, and associated technologies
* demonstrate an understanding of the nature of matter, including the structure of the atom, physical and chemical properties of common elements and compounds, and the organization of elements in the periodic table
 | LabsQuizUnit test | 28 hours |
| Unit 2 - Earth/Space Science: Space Exploration | * evaluate social, environmental, and economic impacts of space exploration and of technological innovations derived from space exploration
* demonstrate an understanding of the components, characteristics, and associated phenomena of the solar system and the universe, and the importance of the Sun to processes on Earth
 | LabQuizUnit test | 25 hours |
| Unit 3 - Physics: Principles and Applications of Electricity | * assess social, environmental, and economic impacts of electrical energy production and consumption, and describe ways to achieve sustainable practices
* demonstrate an understanding of the nature of electric charges, including properties of static and current electricity
 | LabsQuizUnit test | 25 hours |
| Unit 4 - Biology: Sustainable Ecosystems and Climate Change | * assess impacts of climate change on ecosystem sustainability and on various communities, and describe ways to mitigate these impacts
* demonstrate an understanding of the dynamic and interconnected nature of ecosystems, including how matter cycles and energy flows through ecosystems
 | LabsQuizUnit test | 25 hours |
| Unit 5 - STEM Investigation Skills | * apply [scientific processes and an engineering design process](https://www.dcp.edu.gov.on.ca/en/curriculum/secondary-science/courses/snc1w/program#processes) in their investigations to develop a conceptual understanding of the science they are learning, and apply coding skills to model scientific concepts and relationships
* analyse how scientific concepts and processes can be applied in practical ways to address real-world issues and in various careers, and describe contributions to science from people with diverse lived experiences
 | Built into the units throughout the course |  |
| Culminating Task(s) | Summative project | Final Exam | 7 hours |