Course Name: Gr. 9 Essential Science
Course Code: SNC 1L1
Level: Workplace

Course Overview:

This course provides students with the fundamental knowledge of and skills relating to science that will help them succeed in work and life after secondary school. Students will explore a range of topics, including the impact of chemicals & their use on the environment, career exploration, energy conservation, safety in the workplace & challenges & benefits of aerospace & space exploration. Emphasis is placed on relevant, practical applications and current topics in science, with attention to the refinement of students’ literacy and mathematical literacy skills as well as the development of their scientific literacy.

Curriculum Strands and Overall Expectations:

Scientific Investigation Skills and Career Exploration
- Demonstrate scientific investigation skills (relating to both inquiry and research) in the four areas of skills (initiating and planning, performing and recording, analyzing and interpreting, and communicating)
- Identify and describe careers related to the fields of science under study.

Exploring Chemicals
- Investigate chemical reactions through conducting chemical tests
- Demonstrate an understanding of lab safety through general rules, WHMIS & HHPS symbols

Forensic Analysis
- Investigate how different environmental factors can affect people’s health and their lifestyle choices
- Demonstrate an understanding of the ways in which forensic analysis can used at a crime scene

Electricity
- Conduct investigations & experiments to observe electrical properties
- Investigate various methods of conserving energy and improving energy efficiency
- Demonstrate an understanding of the basic principles of energy production, with reference to both renewable and non-renewable sources, and of various methods of energy conservation

Space Exploration
- Be able to identify constellations in the night sky through constellation charting
- Demonstrate an understanding of the evolution, formation, structure and nature of the solar system & universe
- Describe how human endeavors and interest in space have contributed to our understanding of outer space, the Earth & living things.
Evaluation:

<table>
<thead>
<tr>
<th>Evaluation Item</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Term Work</td>
<td>70%</td>
</tr>
<tr>
<td>Knowledge and Understanding</td>
<td>25%</td>
</tr>
<tr>
<td>Thinking</td>
<td>25%</td>
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<tr>
<td>Communication</td>
<td>25%</td>
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<tr>
<td>Application</td>
<td>25%</td>
</tr>
<tr>
<td>Final Assessment</td>
<td>30%</td>
</tr>
<tr>
<td>Formal Examination</td>
<td>10%</td>
</tr>
<tr>
<td>Culminating Task</td>
<td>20%</td>
</tr>
<tr>
<td>Course Total</td>
<td>100%</td>
</tr>
</tbody>
</table>

Learning Skills and Work Habits

- **Responsibility**: Fulfills responsibility and commitments, Takes responsibility for and manages own behavior
- **Organization**: Devises and follows a plan and process for completing tasks, Establishes priorities and manages time
- **Independent Work**: Independently monitors, assesses, revises plans to complete tasks and meet goals, Uses class time to complete tasks
- **Collaboration**: Accepts various roles and an equitable share of work in a group, Builds healthy peer-to-peer relationships
- **Initiative**: Looks for and acts on new ideas and opportunities, Approaches new tasks with a positive attitude
- **Self-Regulation**: Sets own goals and monitors progress towards achieving them, Seeks clarification or assistance when needed

Missed/Late/Incomplete Assignments

It is the student’s responsibility to address missed, late, or incomplete assignments. Students are expected to complete assignments and to adhere to assignment deadlines as follows:

<table>
<thead>
<tr>
<th>Due Date</th>
<th>10% Penalty Zone</th>
<th>Closure Date</th>
</tr>
</thead>
<tbody>
<tr>
<td>A due date is set by the teacher.</td>
<td>1 school day late – 3% 2 school days late – 6% 3 school days late – 10% Maximum penalty of 10%</td>
<td>Once the closure date has passed, work is considered incomplete and a mark of zero applies.</td>
</tr>
</tbody>
</table>

Missed Quiz/Test/Lab Procedures

If a student is absent on the day of a quiz, a ‘no mark’ will be assigned. Quizzes will not be re-written on any other day. The ‘no mark’ will not affect a student’s grade. Students will only be granted a maximum of two ‘no mark’ evaluations. A third missed quiz will result in a mark of zero. If a student is absent on the day of a test, the student will receive a mark of zero unless a doctor’s note is provided and they will write the test at a later date as determined by the teacher. If a student is absent on the day of a lab, a mark of zero for the performance of the lab may result due to the specific timing, preparation and availability of materials. Students are responsible for obtaining data from the lab and completing the written portion on their own time.