



# Cardinal Leger Secondary School

## Science Department



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<b>Course Name:</b>	Chemistry, Grade 11	<b>Ministry Guidelines:</b>	Science, 2008
<b>Course Code:</b>	SCH 3U1	<b>Replacement Cost:</b>	\$100
<b>Level:</b>	University Preparation	<b>Number:</b>	
<b>Textbook:</b>	Nelson Chemistry 11		

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### Course Overview:

This course enables students to deepen their understanding of chemistry through the study of the properties of chemicals and chemical bonds; chemical reactions and quantitative relationships in those reactions; solutions and solubility; and atmospheric chemistry and the behavior of gases. Students will further develop their analytical skills and investigate the qualitative and quantitative properties of matter, as well as the impact of some common chemical reactions on society and the environment.

**Prerequisite:** Grade 10 Academic Science.

### Curriculum Strands and Overall Expectations:

#### **Scientific Investigation Skills and Career Exploration**

- Demonstrate scientific investigation skills (related to both inquiry and research) in the four areas of skills (initiating and planning, performing and recording, analysing and interpreting, and communicating)
- Identify and describe careers related to the fields of science under study, and describe the contributions of scientists, including Canadians, to those fields

#### **Matter, Chemical Trends, and Chemical Bonding**

- Analyse the properties of commonly used chemical substances and their effects on human health and the environment, and propose ways to lessen their impact
- Investigate physical and chemical properties of elements and compounds, and use various methods to visually represent them
- Demonstrate an understanding of periodic trends in the periodic table and how elements combine to form chemical bonds

#### **Chemical Reactions**

- Analyse chemical reactions used in a variety of applications, and assess their impact on society and the environment
- Investigate different types of chemical reactions
- Demonstrate an understanding of the different types of chemical reactions

#### **Quantities in Chemical Reactions**

- Analyse processes in the home, the workplace, and the environmental sector that use chemical quantities and calculations, and assess the importance of quantitative accuracy in the industrial chemical processes
- Investigate quantitative relationships in chemical reactions, and solve related problems
- Demonstrate an understanding of the mole concept and its significance to the quantitative analysis of chemical reactions

#### **Solutions and Solubility**

- Analyse the origins and effects of water pollution, and a variety of economic, social, and environmental issues related to drinking water
- Investigate qualitative and quantitative properties of solutions, and solve related problems
- Demonstrate an understanding of qualitative and quantitative properties of solutions

#### **Gases and Atmospheric Chemistry**

- Analyse the cumulative effects of human activities and technologies on air quality, and describe some Canadian initiatives to reduce pollution, including ways to reduce their own carbon footprint
- Investigate gas laws that explain the behavior of gases and solve related problems
- Demonstrate an understanding of the laws that explain the behaviour of gases



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## Evaluation

<b>Term Work</b>	<b>70%</b>
Knowledge and Understanding	25%
Thinking	35%
Communication	15%
Application	25%
<b>Final Assessment</b>	<b>30%</b>
Formal Examination	25%
Culminating Task	5%
<b>Course Total</b>	<b>100%</b>

## Learning Skills and Work Habits

E= Excellent G=Good S=Satisfactory N= Needs Improvement

Responsibility	<ul style="list-style-type: none"> <li>• Fulfills responsibility and commitments.</li> <li>• Takes responsibility for and manages own behavior.</li> </ul>
Organization	<ul style="list-style-type: none"> <li>• Devises and follows a plan and process for completing tasks.</li> <li>• Establishes priorities and manages time</li> </ul>
Independent Work	<ul style="list-style-type: none"> <li>• Independently monitors, assesses, and revises plans to complete tasks and meet goals.</li> <li>• Uses class time to complete tasks.</li> </ul>
Collaboration	<ul style="list-style-type: none"> <li>• Accepts various roles and an equitable share of work in a group.</li> <li>• Builds healthy peer-to-peer relationships.</li> </ul>
Initiative	<ul style="list-style-type: none"> <li>• Looks for and acts on new ideas and opportunities.</li> <li>• Approaches new tasks with a positive attitude.</li> </ul>
Self-Regulation	<ul style="list-style-type: none"> <li>• Sets own goals and monitors progress towards achieving them.</li> <li>• Seeks clarification or assistance when needed.</li> </ul>

## 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:

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

## Missed Quiz/Test/Lab Procedure

**If a student is absent on a 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 so if they are absent for three quizzes the third mark will be a mark of zero. A mark of zero **may** be assigned for a missed lab.

**If a student is absent on a day of a test**, the student will receive a mark of “zero” unless a doctor's note is provided.

Parent Signature: \_\_\_\_\_ Student Signature: \_\_\_\_\_