

Sir John A. Macdonald Collegiate Institute Course Brief

Course Name	CHEMISTRY – GRADE 12 COLLEGE	Grade	12
Course Code	SCH 4C	Credit Value	1
Pre-Requisite	SNC 2P/2D	Or Recommended Pre-Requisite	
Type of Course	COLLEGE		

TEXTBOOKS

Chemistry 12 – College Preparation
Nelson Canada, Toronto
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REPLACEMENT COST (if lost or damaged)

\$98.95

ADDITIONAL RESOURCES/LEARNING MATERIALS

REPLACEMENT COST (if lost or damaged)

Course Description

This course enables students to develop an understanding of chemistry through the study of matter and qualitative analysis, organic chemistry, electrochemistry, chemical calculations, and chemistry as it relates to the quality of the environment. Students will use a variety of laboratory techniques, develop skills in data collection and scientific analysis, and communicate scientific information using appropriate terminology. Emphasis will be placed on the role of chemistry in daily life and the effects of technological applications and processes on society and the environment.

Curriculum Strands/Categories (this may differ depending on discipline and level)

Knowledge and Understanding: Subject-specific content acquired in each grade/course (knowledge), and the comprehension of its meaning and significance (understanding)

Thinking: The use of critical and creative thinking skills and/or processes

Communication: The conveying of meaning through various forms

Application: The use of knowledge and skills to make connections within and between various contexts

Assessment and Evaluation of Student Achievement

Unit	Unit Title/Description	Evaluation Task	Achievement Chart Focus
Unit 1	Matter and Qualitative Analysis	- Flame Test Lab - Atomic Emission Analogy - Bond Diagram Assignment - Unit Test	T A C K
Unit 2	Chemical Calculations	- Percent Composition Lab - The Chalk Activity - Mole Ratio Activity - Unit Test	T A C K
Unit 3	Organic Chemistry	- Esters Lab - Molecular Models - Distillation Comparison - Unit Test	T C A K
Unit 4	Electrochemistry	- Activity Series Lab - Designing Electrochemical Cells - Unit Test	T C, A K
Unit 5	Chemistry in the Environment	- Titration Lab	K, T, C, A

Levels of Achievement

For Grades 9 to 12, a student's achievement of the overall curriculum expectations will be evaluated in accordance with the achievement charts in the provincial curriculum and will be reported using percentage marks.

Achievement Level	Percentage Mark Range	Achievement Description
HL4/L4+ L4 LL4/L4-	95 – 100 87 – 94 80 – 86	Level 4 identifies achievement that surpasses the provincial standard. The student demonstrates the specified knowledge and skills with a high degree of effectiveness.
HL3/L3+ L3 LL3/L3-	77 – 79 73 – 76 70 – 72	Level 3 represents the provincial standard for achievement. The student demonstrates the specified knowledge and skills with considerable effectiveness. Parents of students achieving at level 3 can be confident that their children will be prepared for work in subsequent grades/courses
HL2/L2+ L2 LL2/L2-	67 – 69 63 – 66 60 – 62	Level 2 represents achievement that approaches the provincial standard. The student demonstrates the specified knowledge and skills with some effectiveness. Students performing at this level need to work on identified learning gaps to ensure future success.
HL1/L1+ L1 LL1/L1-	57 – 59 53 – 56 50 – 52	Level 1 represents achievement that falls much below the provincial standard. The student demonstrates the specified knowledge and skills with limited effectiveness. Students must work at significantly improving learning in specific areas, as necessary, if they are to be successful in the next grade/course

Students who achieve below 50% have not met curriculum expectations; a credit will not be granted.

Learning Skills	Assessment of Learning Skills
Responsibility Organization Independent Work Collaboration Initiative Self-Regulation	Excellent (E) Good (G) Satisfactory (S) Needs Improvement (N)

Weighting by Strands/Categories			
Knowledge and Understanding	30%	Communication	25%
Thinking	25%	Application	20%

Assessment and Evaluation Strategies: the following is a list of potential A/E strategies used within the course; the list may not be exhaustive and is subject to change

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| → Paper & pencil quizzes & tests | → Library/Internet research projects |
| → Formal examination | → Formal lab reports |
| → Practical lab performance | → Scientific illustration |
| → Written assignment/projects | → Graphical analysis & presentation |
| → Research presentations | → Portfolio assessment |

CALCULATION OF FINAL MARK

- 70% for evaluations conducted throughout the course
- 30% for culminating activities