SCH3U Course Assessment Rubric Start Date: _____ Name:_____

Overall Expectations [See back of page]	LEVEL					
	I	R	[-] 1 [+]	[-] 2 [+]	[-] 3 [+]	[-] 4 [+]
Scientific Investigation Skills and Career Exploration A1 **A2**						
Matter, Chemical Trends and Chemical Bonding **B1 Analyse properties of chemicals** **B2 Investigate properties of elements** **B3 Demonstate periodic trends & how elements combine**						
Chemical Reactions: **C1 Analyse reactions used in applications, impact on society & environment** **C2 Investigate types of reactions** **C3 Demonstrate understanding of types of chemical reactions**						
Quantities in Chemical Reactions **D1 Analyse processes in home, workplace and environment** **D2 Investigate quantities in chemical reactions** **D3 Demonstrate an understanding of the mole concept**						

Solutions and Solubility **E1 Analyse water pollution** **E2 Investigate qualitative & quantative properties** **E3 Demonstrate an understanding**						
F Gases and Atmospheric Chemistry **F1 Analyse the effects of human activities on air quality** **F2 Investigate gas laws** **F3 Demonstrate an understanding**						

Progress Report [No grade]	Mid-Semester Report Grade	Final Grade
[This is work habits feedback.]	[This grade is a progress report at this time.]	

Definition of Levels

Level I – Did not submit work or did not do required task.

Level R – Fails to meet standard for a passing grade.

Level 1 – Limited ability to meet standard and limited effectiveness.

Level 2 – Some ability demonstrated and moderately effective

Level 3 – Considerable ability demonstrated, considerable clarity or accuracy

Level 4 – Thorough, high degree of skill demonstrated, insightful, highly accurate

Example: On test #2 the student was assessed at T_{2a} = level 3+ T_{2c} = level 2-

Student was assessed at level 3+ for Test #2 application category

Student was assessed at level 2- for Test #2 communication category

Legend For Assessment Rubric Tools

Q	Quiz
T	Test
A	Assignment [report/essay/problem set…]
L	Lab [activity and/or report]
I	Informal Assessment

Example:

Test #2 Application→ T_{2a}

Test #2 Communication→ T_{2c}

Categories of Knowledge and Skills

Knowledge and Understanding [ku] – Subject Specific content acquired in each course {knowledge}, and the comprehension of its meaning and significance {understanding}

Thinking and Investigation [ti] The use of critical and creative thinking skills and inquiry, research, and problem solving skills and/or

Overall Expectations MOE [http://www.edu.gov.on.ca/eng/curriculum/secondary/2009science11_12.pdf

ENDURING STRAND

Throughout this course, students will:

A1. 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);

A2. identify and describe careers related to the fields of science under study, and describe the contributions of scientists, including Canadians, to those fields.

By the end of this course, students will:

Matter Chemical Trends and Chemical Bonding

B1. analyse the properties of commonly used chemical substances and their effects on human health and the environment, and propose ways to lessen their impact;
B2. investigate physical and chemical properties of elements and compounds, and use various methods to visually represent them;
B3. demonstrate an understanding of the periodic trends in the periodic table and how elements combine to form chemical bonds

Chemical Reactions

C1. analyse chemical reactions used in a variety of applications, and assess their impact on society and the environment;
C2. investigate different types of chemical reactions;
C3. demonstrate an understanding of the different types of chemical reactions

Quantities in Chemical Reactions

D1. analyse processes in the home, the workplace, and the environment sector that use chemical quantities and calculations and assess the importance of quantitative accuracy in industrial chemical process;
D2 investigate quantitative relationships in chemical reactions, and solve related problems;
D3 demonstrate an understanding of the mole concept and its significance to the quantitative analysis of chemical reactions

Solutions and Solubilty

E1. analyse the origins and effects of water pollution, and a variety of economic, social, and environmental issues related to drinking water
E2. investigate qualitative and quantitative properties of solutions, and solve related problems
E3 demonstrate an understanding of qualitative and quantitative properties of solutions

Gases and Atmospheric Chemistry

F1 analyse the cumulative effects of human activities and technologies on air quality, and describe some Canadian initiatives to reduce air pollution, including ways to reduce their own carbon footprint
F2 investigate gas laws that explain the behaviour of gases, and solve related problems
F3 demonstrate an understanding of the laws that explain the behaviour of gases