



R. H. King Academy

SCH3U

Course Outline & Assessment/Evaluation Plan **Grade 11 University Prep Chemistry**

Department: Science

Teacher: Ms A. Rungee

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Pre-requisite: Grade 10 Academic Science, *SNC2D*

Credit Value: 1.0

Google Class Code: **c3F38o**

Course Description

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 behaviour 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.

Course Overview

Grade 11 University Chemistry is organized into the following units:

1. Chemical Nomenclature
2. Atoms and Bonding
3. Chemical Reactions
4. Quantities in Chemical Reactions
5. Gases and Atmospheric Chemistry
6. Solutions and Solubility

Course Textbook:

Nelson Chemistry 11 (Replacement Cost: \$90.00)

Materials Required:

splash proof goggles, scientific calculator, binder, binder paper, pens, pencils, coloured pencils or markers, eraser, ruler, graph paper.

Overall Expectations

By the end of the course, students will:

- Demonstrate scientific investigation skills with initiating and planning, performing and recording, analysing and interpreting, and communicating;
- Identify and describe careers related to chemistry;
- Analyse the properties of commonly used chemical substances and their effects on human health, 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 trends in the periodic table and how elements combine to form chemical bonds;
- Analyse chemical reactions used in a variety of applications, and assess their impact on society and the environment;
- Investigate and demonstrate an understanding of different types of 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 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.
- Analyse the origins and effects of water pollution, and a variety of economic, social, and environment issues related to drinking water;
- Demonstrate an understanding of qualitative and quantitative properties of solutions;
- 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 one own carbon footprint;
- Investigate the gas laws for the behaviour of gases and solve related problems;
- Demonstrate an understanding of the laws that explain the behaviour of gases.

For more detail on the provincial curriculum expectations for this course go to:

<http://www.edu.gov.on.ca/eng/curriculum/secondary/science.html>

Clinic

All students can benefit from signing up for clinic when they feel they need extra help, but you may have mandatory clinic periods with your science teacher for work completion or if you are not meeting course expectations (<70%).

Assessment and Evaluation

Assessment is ongoing throughout the semester and includes:

Assessment **as** Learning:

Student reflection on how well they did on a task and where they are on the road to academic success. This is not counted towards the students mark.

Assessment **for** Learning:

i) Diagnostic assessment - to determine outcomes already met from previous learning, to determine where more time is needed for the class in general, and to identify gaps in learning that individual students have that require remediation.

ii) Formative assessment - to give students descriptive feedback on their progress towards curriculum expectations. These are not normally included in the student's mark unless the summative evaluation is missed.

Assessment **of** Learning:

Activities and tests given after a section of study that are used to determine a student's mark. These assessments are also called summative evaluations.

All assessment of learning (evaluations) will be assigned to academic skill categories based on:

- **K**nowledge and Understanding of facts and concepts
- Thinking and **I**nquiry
- **C**ommunication skills
- **A**pplication of skills acquired

Knowledge and Understanding – Subject-specific content acquired in each course, and the comprehension of its meaning and significance

Thinking and **I**nvestigation – The use of critical and creative thinking skills and inquiry, research, and problem-solving 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

Cheating and Plagiarism

It is expected that all students at R.H. King Academy will practice academic honesty and build this into their career philosophies. They must acknowledge any input from peers, parents and secondary sources. Information gathered from the Internet is considered a secondary source. To submit any work that is not completely their own is considered plagiarism. "Loaning" completed work to other students is considered to be cheating.

Cheating will result in a mark of zero and may result in suspension and/or loss of credit.

How your Mark is Determined:

	CATEGORY	WEIGHTING (%)
Term Evaluation 70%	Knowledge/Understanding	18%
	Thinking/Inquiry	18%
	Communication	12%
	Application	12%
	Major Project/ISU	10%
Final Evaluation 30%	Final Exam	30%

For more information on assessment, classroom expectations and rules see:

TDSB Science Safety Rules, RH King Science Dept. Policies and Student Evaluations, and Growing Success documents.