



R. H. King Academy

# SCH4C

## **Course Outline & Assessment/Evaluation Plan** **Grade 12 College Prep Chemistry**

Department: Science

Teacher: Mr. S. Lloyd

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Pre-requisite: Grade 10 Applied Science, SNC2P

Credit Value: 1.0

Google Class Code: **68brwo**

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### **Course Description**

This course enables students to develop an understanding of chemistry through the study of matter, qualitative analysis, organic chemistry, electrochemistry, and chemical calculations, 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.

### **Course Overview**

Grade 11 College Prep Chemistry is organized into the following units:

1. Matter & Qualitative Analysis
2. Organic Chemistry
3. Electrochemistry
4. Chemical Calculations
5. Chemistry in the Environment

### **Course Textbook:**

There is no set textbook for this course.

### **Materials Required:**

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

## Overall Expectations

By the end of the course, students will:

- Demonstrate an understanding of the basic principles of qualitative analysis of matter;
- Investigate matter, using various methods of qualitative analysis;
- Evaluate the effects of chemical substances on the environment, and analyse practical applications of qualitative analysis of matter;
- Demonstrate an understanding of the structure and the physical and chemical properties of organic compounds;
- Investigate the physical and chemical properties of organic compounds, and analyse some common organic chemical reactions;
- Evaluate the impact on society, human health, and the environment of products made using organic compounds;
- Demonstrate an understanding of the concepts of oxidation and reduction, and the principles of oxidation-reduction reactions;
- Investigate the oxidation-reduction reaction that occurs in a galvanic cell;
- Analyse technological applications or processes relating to oxidation-reduction reactions and assess their impact on the environment;
- Demonstrate an understanding of the mole concept and its quantitative relationships in chemical relations.
- Investigate chemical compounds and chemical reactions using appropriate techniques of quantitative analysis, and solve related problems;
- Analyse processes in the home, the workplace, or the environmental sector that use chemical quantities and calculations, and assess the importance of accuracy in chemical calculations;
- Demonstrate an understanding of chemical reactions that occur in the environment as result of both natural processes and human activities;
- Investigate chemical reactions, using appropriate techniques of quantitative analysis;
- Evaluate the importance of government regulations, scientific analyses, and individual actions in improving air and water, and propose a personal plan of action to support these efforts.

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

**K**nowledge 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

**C**ommunication – The conveying of meaning through various forms

**A**pplication – 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:**

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

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.