

Chemistry 30 Long Range Plan

Neufeld – 2011/2012

Goals and objectives of the chemistry 30 curriculum:

- Encourage students to develop a critical sense of wonder and curiosity about scientific and technological endeavors
- Enable students to use science and technology to acquire new knowledge and solve problems, so that they may improve the quality of their own lives and the lives of others
- Prepare students to critically address science-related societal, economic, and environmental issues
- Provide students with a foundation in science that creates opportunities for them to pursue progressively higher levels of study, prepares them for science-related hobbies appropriate to their interests and abilities
- Enables students, of varying aptitudes and interests, to develop a knowledge of the wide spectrum of careers related to science, technology, and the environment

Unit 1: Thermochemical Changes

September 9 to September 29, 2011

Curricular Outcomes	<ul style="list-style-type: none"> • Determine and interpret energy changes in chemical reactions • Explain and communicate energy changes in chemical reactions 		
Resources	<ul style="list-style-type: none"> • Nelson Chemistry Textbook • Learn Alberta website • Explore learning website • Computer Lab • Various Chemicals and Equipment 	Instructional Approaches	<ul style="list-style-type: none"> • Lecture • Labs • Readings • Concept Maps • Research • Student Reviews
Evaluation	<ul style="list-style-type: none"> • Lab Reports • Assignments • Research Projects • Quizzes • Unit Final Exam 		

Unit 2: Electrochemical Changes
September 30 to October 28, 2011

Curricular Outcomes	<ul style="list-style-type: none"> • Explain the nature of oxidation-reduction reactions • Apply the principles of oxidation-reduction to electrochemical cells 		
Resources	<ul style="list-style-type: none"> • Nelson Chemistry Textbook • Learn Alberta website • Explore learning website • Computer Lab • Various Chemicals and Equipment 	Instructional Approaches	<ul style="list-style-type: none"> • Lecture • Labs • Readings • Concept Maps • Research • Student Reviews
Evaluation	<ul style="list-style-type: none"> • Lab Reports • Assignments • Research Projects • Quizzes • Unit Final Exam 		

Unit 3: Chemical Changes of Organic Compounds
October 29 to November 19, 2011

Curricular Outcomes	<ul style="list-style-type: none"> • Explore organic compounds as a common form of matter • Describe chemical reactions of organic compounds 		
Resources	<ul style="list-style-type: none"> • Nelson Chemistry Textbook • Learn Alberta website • Explore learning website • Computer Lab • Various Chemicals and Equipment 	Instructional Approaches	<ul style="list-style-type: none"> • Lecture • Labs • Readings • Concept Maps • Research • Student Reviews
Evaluation	<ul style="list-style-type: none"> • Lab Reports • Assignments • Research Projects • Quizzes • Unit Final Exam 		

Unit 4: Chemical Equilibrium Focusing on Acid-Base Systems

November 22 to December 21 2011

Curricular Outcomes	<ul style="list-style-type: none">• Explain that there is a balance of opposing reactions in chemical equilibrium systems• Determine quantitative relationships in simple equilibrium systems		
Resources	<ul style="list-style-type: none">• Nelson Chemistry Textbook• Learn Alberta website• Explore learning website• Computer Lab• Various Chemicals and Equipment	Instructional Approaches	<ul style="list-style-type: none">• Lecture• Labs• Readings• Concept Maps• Research• Student Reviews
Evaluation	<ul style="list-style-type: none">• Lab Reports• Assignments• Research Projects• Quizzes• Unit Final Exam		

Course Review: January 10 to January 25, 2012

Diploma Examination: January 26, 2012

Assessment:

A variety of assessment techniques will be used in the classroom including: teacher observation, assignments, oral presentations, models, projects, quizzes, tests, and exams. Remember the diploma examination is worth 50% of your final grade.

Class performance and assignments:

Besides a daily demonstration of willingness to participate in class activities and exercises, the student who attends regularly and shows a consistent, conscientious effort towards the course material will do well here. Assignments and/or projects may be given weekly and due on the assigned date.

Extra help is available before school, during lunch and after school hours. (Note: Please sign up for extra help at least a day in advance)

Quizzes and Unit Tests:

Quizzes will occur about twice a chapter and may not always be announced. Unit tests will pertain to the current and may include past units.

Term Evaluation:

For each unit, marks will be awarded based on the following percentages:

Unit Tests	50 %
Homework / Assignments	35 %
Quizzes	15 %

Final Grade:

Teacher Mark	40 %
Teacher Final	10 %
Diploma Exam	50 %