



Grade 12 Science

Grade 12 Chemistry A Foundation for Implementation 2013

Student Learning Outcomes & Unit Skills and Attitude Outcomes Related to Sustainable Development

Topic 1: Reactions in Aqueous Solutions

C12-0-S1: Demonstrate work habits that ensure personal safety and the safety of others, as well as consideration for the environment.

Include: knowledge and use of relevant safety precautions, Workplace Hazardous Materials Information System (WHMIS), emergency equipment

C12-0-A1: Demonstrate confidence in their ability to carry out investigations in chemistry and to address STSE-related issues.

C12-1-02: Perform a laboratory activity to develop a set of solubility rules.

C12-1-03: Use a table of solubility rules to predict the formation of a precipitate.

Topic 2: Atomic Structure

C12-0-S1: Demonstrate work habits that ensure personal safety and the safety of others, as well as consideration for the environment.

Include: knowledge and use of relevant safety precautions, Workplace Hazardous Materials Information System (WHMIS), emergency equipment

C12-2-01: Describe qualitatively the electromagnetic spectrum in terms of frequency, wavelength, and energy.

C12-2-02: Recognize, through direct observation, that elements have unique line spectra.

Include: flame tests or gas discharge tubes and spectrosopes or diffraction gratings

C12-2-03: Describe applications and/or natural occurrences of line spectra.

Examples: astronomy, aurora borealis, fireworks, neon lights . . .

Topic 4: Chemical Equilibrium

C12-0-S1: Demonstrate work habits that ensure personal safety and the safety of others, as well as consideration for the environment.

Include: knowledge and use of relevant safety precautions, Workplace Hazardous Materials Information System (WHMIS), emergency equipment

C12-4-05: Perform a laboratory activity to determine the equilibrium constant of an equilibrium system.

Topic 5 Acids and Bases

C12-0-S1: Demonstrate work habits that ensure personal safety and the safety of others, as well as consideration for the environment.

Include: knowledge and use of relevant safety precautions, Workplace Hazardous Materials Information System (WHMIS), emergency equipment

C12-5-10: Perform a laboratory activity to determine the concentration of an unknown acid or base, using a standardized acid or base.

Topic 6 Electrochemistry

C12-0-S1: Demonstrate work habits that ensure personal safety and the safety of others, as well as consideration for the environment.

Include: knowledge and use of relevant safety precautions, Workplace Hazardous Materials Information System (WHMIS), emergency equipment

C12-6-01: Develop an activity series experimentally.

C12-6-02: Predict the spontaneity of reactions using an activity series.