



Grade 11 Science

Grade 11 Chemistry A Foundation for Implementation 2010

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

Topic 1: Physical Properties of Matter

C11-0-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

C11-1-03 Explain the properties of liquids and solids using the Kinetic Molecular Theory.

C11-1-04: Explain the process of melting, solidification, sublimation, and deposition in terms of the Kinetic Molecular Theory.

Include: freezing point, exothermic, endothermic

Topic 2: Gases and the Atmosphere

C11-2-02: Research Canadian and global initiatives to improve air quality.

Topic 4: Solutions

C11-0-U2: Demonstrate an understanding of chemical concepts.

Examples: use accurate scientific vocabulary, explain concepts to others, compare and contrast concepts, apply knowledge to new situations and/or contexts, create analogies, use manipulatives...

C11-0-D1: Identify and explore a current STSE issue.

Examples: clarify what the issue is; identify different viewpoints and/or stakeholders, research existing data/information

C11-0-D2: Evaluate implications of possible alternatives or positions related to an STSE issue.

Examples: positive and negative consequences of a decision, strengths and weaknesses of a position...

C11-4-09: Explain how a change in temperature affects the solubility of gases.

Topic 5: Organic Chemistry

C11-5-14: Describe uses of aromatic hydrocarbons.

Examples: polychlorinated biphenyls, caffeine, steroids, organic solvents (toluene, xylene)...

C11-5-24: Use the decision-making process to investigate an issue related to organic chemistry.

Examples: gasohol production, alternative energy sources, recycling of plastics...