SCOPE & SEOUENCE
GR. 10 – SCIENCE 10

Student Task

GRADE 10: Science 10
UNIT 1: Energy from the Sun
UNIT 2: Energy and Matter in Living Systems
UNIT 3: Energy and Matter in Chemical Change
UNIT 4: Change and Energy
TASK: Website, Various Topics
PRODUCTIVITY TOOL: Internet Research, Web Editor
TIMELINE: 2 Weeks
LEVEL OF DIFFICULTY: Project

Students will be asked to research a topic from Science 10 and create a small website to share the information with their peers. Such topics could include:

Unit 1 – Energy from the Sun
- Cloud Types and Formation
- Coriolis Effect
- Earth's Atmosphere
- Hydrologic Cycle
- Major Subdivisions of the Earth
- Ozone Layer Radiation
- Role of Latitude in Weather
- Weather Phenomena (tornado, cyclone, etc.)

Unit 2 – Energy and Matter in Living Systems
- Aquatic Food Web
- Land Organisms Food Web
- Properties of Water

Unit 3 – Energy and Matter in Chemical Change
- Periodic Table (first 20 elements)
- pH Scale
- States of Matter (solid/liquid/gas)
- Workplace Hazardous Materials Information System (WHMIS)

Unit 4 – Change and Energy
- Energy
- Force
- Speed
- Work

ICT Outcomes

The learner will:

C1 4.1 plan and perform complex searches, using more than one electronic source
4.2 select information from appropriate sources, including primary and secondary sources
4.3 evaluate and explain the advantages and disadvantages of various search strategies

C3 4.1 assess the authority, reliability and validity of electronically accessed information
4.2 demonstrate discriminatory selection of electronically accessed information that is relevant to a particular topic

C7 4.1 use appropriate strategies to locate information to meet personal needs
4.2 analyze and synthesize information to determine patterns and links among ideas

F1 4.3 apply terminology appropriate to technology in all forms of communication

F2 4.1 use technology outside formal classroom settings
4.7 use current, reliable information sources from around the world

F3 4.1 demonstrate an understanding of how changes in technology can benefit or harm society
4.2 record relevant data for acknowledging sources of information, and cite sources correctly
4.3 respect ownership and integrity of information

F4 4.1 discriminate between style and content in a presentation
4.2 evaluate the influence and results of digital manipulation on our perceptions
4.3 identify and analyze a variety of factors that affect the authenticity of information derived from mass media and electronic information

F5 4.2 identify safety regulations specific to the technology being used

P3 4.1 select and use, independently, multimedia capabilities for presentations in various subject areas
4.2 support communication with appropriate images, sounds and music

4.3 apply general principles of graphic layout and design to a document in process

P4 4.1 integrate a variety of visual and audio information into a document to create a message targeted for a specific audience

4.2 apply principles of graphic design to enhance meaning and audience appeal

P5 4.1 create multiple-link documents appropriate to the content of a particular topic

4.2 post multiple-link pages on the World Wide Web or on a local or wide area network

Curriculum Outcomes

GRADE 10: Science 10
UNIT 3: Energy and Matter in Chemical Change
TASK: WHMIS Website
NOTE: The objectives covered by creating a website about WHMIS would be as follows:

Knowledge Objectives, Concept 1, Bullet 1

- Matter is classified on the basis of its properties.

Skill Objectives, Collecting and Recording, Bullet 3

- observe, gather and record data or information accurately according to safety regulations: e.g., Workplace Hazardous Materials Information System (WHMIS) and environmental considerations

Science, Technology and Society (STS), Concept 1, Bullet 2

- describe how WHMIS symbols are used to classify potentially hazardous materials; and explain the need for such systems to protect ourselves and the environment from harm