Science

Overview

Alberta Education curriculum. www.learning.gov.ab.ca

Science should be taught in a very hands-on and practical format. Focus should be on the scientific process, problem solving, and practical applications rather then memorizing.

Topics Covered:

Strands	Grade 7	Grade 8	Grade 9
A	Interactions and Ecosystems	Mix and Flow of Matter	Biological Diversity
B	Plants for Food and Fibre	Cells and Systems	Matter and Chemical Change
C	Heat and Temperature	Optic and Light Systems	Environmental Chemistry
D	Structures and Forces	Mechanical Systems	Electrical Principles and Technologies
E	Planet Earth	Fresh and Salt Water Systems	Space Exploration

Strategies:

- Students respond well to hands-on experiments.
- These experiments should follow the scientific process (purpose, hypothesis, materials, procedure, observations, data analysis and conclusion).
- Assessment and evaluation can be strongly based on these experiments.
- Demonstrations are very effective.
- Emphasis on safety – this should be a key component at the beginning of each year. This will prepare the students for the high school science environment and the future work place.
- Constant review of the vocabulary in each chapter is required.
- Tests and exams should begin following the basic outline of the Senior High Departmental examinations.
- The vocabulary and materials presented can be challenging. It is recommended that the teacher is prepared to modify where necessary and implement project based learning as much as possible.

Resources: Science in Action – textbook