

LEARNING OUTCOMES: SOILS AND LAND USE

Soil Conservation and Land Use Management

Understand why soils are a vital (and essentially non-renewable) natural resource that must be managed properly in order to sustain human society.

Compare different land uses and conservation practices and their impacts on soils, with particular emphasis on agriculture and food production.

Understand how soil management is integral to maintaining clean water and a healthy aquatic environment.

Chemical Properties of Soil and Soil Fertility

Understand how soil fertility reflects the overall chemical, physical, and biological conditions within a given soil.

Understand the concept of micronutrients and macronutrients as they relate to soils and plant nutrition.

Identify roles and benefits of organic matter in soils.

Physical Properties of Soil and Soil Formation

Understand basic soil forming processes and the factors affecting them.

Understand the concept of soil parent material and how different parent materials can affect soil properties.

Be able to identify common soil horizons and soil features and use this information to interpret soil properties and limitations for land use (e.g., texture, structure, colour, organic matter content, stoniness, drainage class).

Be able to use soil survey maps and related information to make interpretations about soil limitations, opportunities, and appropriate land use.

