

# CGC1P Unit 1: The Diversity of Canada's Natural Landscapes

## Activity 5: Soils

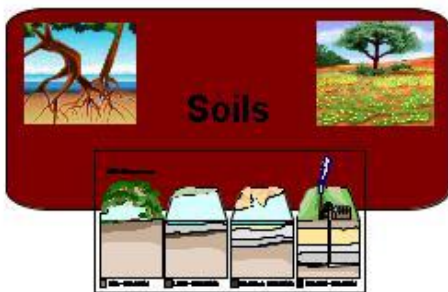
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### Overview

Soils are one of the most important components of Canada's natural systems. In this activity students will develop an understanding of the structure of soils and their importance to natural and human systems.

### Lesson

*Soil profiles have three horizons.*



**Horizon A** (top layer) is the topsoil, which includes air, water, organic material, and bacteria.

**Horizon B** (middle layer) is subsoil, which is a mix between topsoil and parent material.

**Horizon C** (lower layer) is the parent material, which includes the rocks which are being broken down to form subsoil and topsoil over time.

If you were to dig straight down about a meter, you would see the layers which form the soil profile. All soil must have these 4 components to be called 'soil':

- bacteria and decaying organic material - 'Humus'
- minerals from parent rock material
- water
- air

The two main soils across southern Canada are the **chernozem** - black fertile soil with a high amount of organic material (humus) and **podzol** soils - light coloured leached soil with low content of minerals like iron and lime.



Even if there are no plants growing there now, chernozem is the soil under what is, or was, grasslands.



Even if there are no plants growing there now, podzol is the soil which developed under forests.

## Assignment

1. How many horizons do soil profiles have? Describe each horizon.
2. What 4 components must soil have?
3. What are the 2 main soils across southern Canada? Define them.