

Far back in geological time the Shield contained many ranges of high mountains but these have mainly been worn down to a surface of moderate relief consisting of hills, ridges and valleys containing innumerable lakes and streams. Most of the surface is from 600 to 1,200 feet above sea-level, but higher uplands form such well-known features as the Laurentian Mountains north of Montreal where Mount Tremblant rises to an elevation of 3,150 feet, and the Haliburton Highlands in southeastern Ontario which are up to about 1,800 feet. Along the coast of Labrador and in Baffin Island are mountains rising 5,500 and 8,500 feet, respectively, above the sea.

Flanking the Shield are large expanses of plains and lowlands underlain by relatively young and soft rocks overlain in many places by good agricultural soils. A notable characteristic of the boundary between the Shield and the lowlands is the presence of large lakes that lie partly in rock basins in the Shield and partly in depressions in the younger strata. The most prominent are Great Bear Lake, Great Slave Lake, Lake Athabasca, Lake Winnipeg and Lake Huron. The largest lowland area is that of the Interior Plains, sometimes called the Great Plains or Western Interior Lowlands. These constitute the prairies of Western Canada and their wooded continuation to the north. They are divided into the first prairie level, also called the Central Lowlands or Manitoba Plain, from 600 to 900 feet in elevation; the second prairie level, in western Manitoba and eastern Saskatchewan, averaging 2,000 feet in elevation; the High Plains of Alberta and western Saskatchewan, up to 4,300 feet; and, to the north, the Mackenzie Lowlands, from 500 to 4,000 feet. The Northern Interior Lowlands include the Hudson Bay Lowlands south of Hudson Bay, the Foxe Basin Lowlands in and near western Baffin Island, and the Southern Archipelago Lowlands which occupy large parts of the more southerly Arctic islands. The Arctic Coastal Plain farther to the north is sometimes classed as a separate physiographic region comparable to the Atlantic Coastal Plain but is here grouped with the other plains and lowlands for simplicity. The Great Lakes-St. Lawrence Lowlands form two important agricultural and industrial areas in southern Ontario, separated by the Frontenac Axis; the more easterly continues in Quebec, on both sides of the St. Lawrence River, and an isolated continuation forms Anticosti Island.

The Canadian Cordilleran Region is a northwesterly-trending belt about 500 miles wide composed of high mountains and lower plateaux and valleys. It comprises southwestern Alberta, all of British Columbia except its northeastern corner, almost all of Yukon Territory, and the southwestern part of the Northwest Territories. The individual mountain groups and plateaux are arranged in a complex pattern divisible into three parallel northeasterly-trending zones; in most places these zones are quite distinct and are called the Western, Interior and Eastern Systems. Because the Western and Interior Systems are distinct geologically from the Eastern System they are grouped as the Western Cordillera in some geological literature, and in that case the Eastern System is called the Eastern Cordillera. The greater part of the Western System is composed of the high, rugged Coast Mountains along the mainland coast of British Columbia, which are up to 13,260 feet in elevation. Along part of the Yukon-Alaska boundary they are flanked to the southwest by the still higher St. Elias Mountains, up to 19,850 feet above the sea. In southern British Columbia a fairly small area is formed by the Cascade Mountains. Separated from the mainland by the Insular Passage are ranges forming Vancouver and Queen Charlotte Islands, with peaks up to 6,968 feet in elevation. The Interior System is a complex group of plateaux and mountains, respectively up to 6,000 and 11,000 feet above sea-level. Its principal plateaux are the Yukon in central Yukon Territory, the Nechako in central British Columbia, and the Fraser farther south. Some authorities separate the southern part of Fraser Plateau as the Kamloops Plateau, which extends to the 49th Parallel near the Okanagan River. The principal mountain divisions of the Interior System are the Ogilvie and Selwyn Mountains in the Yukon, the Cassiar, Omineca, Skeena, and Hazelton Mountains in northern British Columbia, and the Cariboo, Monashee, Selkirk, and Purcell Mountains in the south-central part of the province, east of Fraser and Kamloops Plateaux.