The part of the St. Lawrence Lowlands lying in the eastern angle of Ontario and in Quebec south of Montreal, and extending down the St. Lawrence, is comparatively flat and lies less than 500 feet above sea-level. On the lower St. Lawrence it is greatly narrowed by the near approach of the Appalachian system to the Canadian Shield. The part lying adjacent to lakes Ontario, Erie and Huron is of less even surface, has its greatest elevation of over 1,700 feet south of Georgian bay, and slopes rather gently to the Great Lakes. A striking topographical feature is the Niagara escarpment. This is an eastward-facing escarpment having a height of 250 to 300 feet and extending from Niagara peninsula northwest to Bruce peninsula.

The Interior Plains region is in general a rolling country with broad undulations and a slope eastward and northward of a few feet per mile, descending from an elevation of 3,000 to 5,000 feet near the mountains on the west to less than 1,000 feet at its eastern border. The elevation of the Canadian Pacific Railway at Calgary is 3,439 feet and at Winnipeg 772 feet. The rolling character of the area is relieved by several flat-topped hills—erosion remnants rising hundreds of feet above the surrounding country—by flat areas that formed the beds of lakes of considerable extent, and by deeply incised river valleys. A striking feature is the broken escarpment of western Manitoba and eastern Saskatchewan, marking the rise of 400 to 1,000 feet from the Manitoba lowland to the upland of the west. A lowland of considerable extent stretches for some distance into Ontario and Manitoba from the south shore of Hudson bay.

The Arctic archipelago consists of large islands, many of which rise prominently from the sea as sloping tablelands, while others are comparatively low.

The Appalachian and Acadian regions occupy practically all that part of Canada lying east of the St. Lawrence, with the exception of the lowland west of a line joining Quebec city and lake Champlain. The Appalachian region is a continuation northward into the province of Quebec of three chains of the Appalachian system of mountains. The most westerly of these ranges stretches northeast into Gaspé peninsula, where it forms flat-topped hills over 3,000 feet high. Mount Jacques Cartier on Tabletop mountain has an elevation of 4,350 feet. The Acadian region, which includes New Brunswick, Nova Scotia, and Prince Edward Island, is an alternation of uplands and lowlands. The northwest part of New Brunswick is an upland with hills and ridges rising to 2,500 feet or higher. Adjacent to the bay of Fundy is a series of ridges rising in places to an elevation of 1,200 feet or more. Between these two New Brunswick uplands is a lowland forming the whole eastern coast of the province and converging towards the southwest. This lowland extends east so as to include Prince Edward Island, the western fringe of Cape Breton island and the mainland of Nova Scotia north of the Cobequid mountains, which have an elevation of 800 to 1,000 feet. South of them lies a long narrow lowland stretching from Chedabucto bay to Minas basin and along the Cornwallis-Annapolis valley between North and South mountains. South of this is a highland sloping to the Atlantic coast and having an elevation at its highest part of about 700 feet. The northern part of Cape Breton island is a tableland 1,200 feet high, culminating in Ingonish mountain with an elevation of 1,392 feet, the highest point in Nova Scotia.

The Cordilleran region, the mountainous area bordering the Pacific, extends northward from the United States through Canada into Alaska, and embraces nearly all of British Columbia and the Yukon and the western edge of Alberta