then some of the coldest weather of the year occurs in spring. If, on the other hand, it pertains to the start of the thawing season, then spring does not arrive until late May or early June, in which case three seasons, spring, summer and autumn, must be crowded into a three- or four-month period ending with the return of winter in September. In an attempt to provide a more detailed picture of the Arctic climate on a year-round basis, without resorting to rather unsatisfactory seasonal classifications, the year has been divided into four periods for discussion purposes, each period having its own characteristic climatic features.

The Climate—December to April.—By December the high Arctic is a region of darkness, the southern islands receive only a few hours of twilight at most and, even in the Hudson Bay area, four or five hours of mid-day sun do little to replenish the heat lost during long hours of darkness. This should not imply complete darkness during the Arctic night of course, since a great deal of useful light results from the moonlight and its reflection from the snow-covered landscape. Equally important to the climate of the area is the fact that the open bays and channels which supplied so much moisture to the air during the preceding four or five months have become mostly ice covered. Maximum sea-ice normally occurs in March, at which time the only significant areas of open water are to be found in Hudson Strait, northern Baffin Bay, Lancaster Sound and narrow coastal leads along the outer islands of the Archipelago.

Air Temperature.—Continuous radiational cooling from the snow-covered surfaces causes slowly falling temperatures until late in February, when the sun's rays provide enough warmth to reverse the temperature trend. Although February is the most severe month at high Arctic stations, with March rather than January a close second, the sun's rays are effective at an earlier date over the southern islands and Arctic mainland, where January is usually the coldest month.

Arctic temperatures average well below zero for the months of December through March and, over islands of the Queen Elizabeth group, during April as well. The year's coldest weather may occur at any time during these months. Obviously the Arctic does not earn its reputation as the coldest area in Canada from the extremes of low temperature reported at its stations. If only extremes of minimum temperature are considered, several areas of Canada well south of the Arctic limits are colder. Only one Arctic station in two has a record low temperature colder than −60°F, and several have never reported temperatures as low as −50°F. These temperature extremes reflect the moderating influences of relatively warm water beneath the ice-covered channels. At inland locations in the larger islands well removed from the open or ice-covered seas, lower temperatures would be expected.

On a monthly or yearly basis, the Arctic regions are the coldest in Canada. This feature is best illustrated by referring to the average daily temperature chart for January, which is broadly representative of temperature patterns in December, February and, in the high Arctic, March. In the southern Arctic, average temperatures in March are about 10°F higher than those in February. The important features of the temperature pattern are the very cold average temperatures (−30°F to −35°F) over northern Ellesmere Island and adjacent smaller islands, and slightly higher (−25°F) readings in all other ice-bound areas of the Arctic region. While temperatures 10°F to 15°F higher along the Arctic's eastern margins reflect the moderating influences of open water in Lancaster Sound and northern Baffin Bay, the highest average temperatures (0°F to −5°F) are found at the entrance to Hudson Strait. This relatively small area, at the southern end of Baffin Island, is dominated by open water and frequent cyclonic activity throughout the period, and its climate differs greatly from that over the remainder of the Arctic region. The severity of the climate of the Arctic is revealed when mean January temperatures of −33°F at Eureka, −25°F at Resolute and −27°F at Baker Lake are compared with the average temperature of −19°F at Snag, the station in the Yukon that boasts the lowest