

# Glaciers!

Most of the world's glaciers are found near the Poles, but glaciers exist on all of the world's continents, even Africa. Australia doesn't have any glaciers; however, it is considered part of Oceania, which includes several Pacific island chains and the large islands of Papua New Guinea and New Zealand. Both of these islands have glaciers.

Glaciers require very specific climatic conditions. Most are found in regions of high snowfall in winter and cool temperatures in summer. These conditions ensure that the snow that accumulates in the winter isn't lost (by melt, evaporation, or calving) during the summer. Such conditions typically prevail in polar and high alpine regions. There are two main types of glaciers: valley glaciers and continental glaciers (known as ice sheets). The amount of precipitation is important to glacier survival. In areas such as Antarctica, where the low temperatures are ideal for glacier growth, very low annual precipitation causes the glaciers to grow very slowly.

A glacier forms when snow accumulates over time, turns to ice, and begins to flow outwards and downwards under the pressure of its own weight. In polar and high-altitude alpine regions, glaciers generally accumulate more snow in the winter than they lose in the summer from melting, ablation, or calving. If the accumulated snow survives one melt season, it is considered to be firn. The snow and firn are compressed by the overlying snow, and the buried layers slowly grow together to form a thickened mass of ice. The pressure created from the overlying snow compacts the underlying layers, and the snow grains become larger ice crystals randomly oriented in connected air spaces. These ice crystals can eventually grow to become several centimeters in diameter. As compression continues and the ice crystals grow, the air spaces in the layers decrease, becoming small and isolated. This dense glacial ice usually looks somewhat blue. [<http://www-nsidc.colorado.edu/glaciers/story/>]

Ten percent of the Earth's land area is covered by glaciers. There are nearly 100,000 glaciers in Alaska, and most of them don't have names. [<http://perrybear.com/glacier/facts.htm>]

