Glacial Landforms - A River of Ice

Glaciers are huge masses of ice that "**flow**" like very slow rivers. They are found all over the world, with most in the polar regions.

There are over **400,000** glaciers in the world, covering **726,000 km2 .**

There are **3 main types** of glaciers

Continental glaciers

Today, there are only two ice sheets in the world: the Antarctic ice sheet and the Greenland ice sheet.

Ice caps

An ice cap is a dome-shaped glacial mass flowing in all directions (from its centre) They cover less area than an ice sheet (i.e. less than 50,000 km2).

Alpine glaciers

Are glaciers that are formed between two mountains and flow through the valley towards to sea. A healthy glacier advances and a dying one retreats.

10 percent of the land area on Earth is covered with glacial ice.

How are **glaciers formed**?

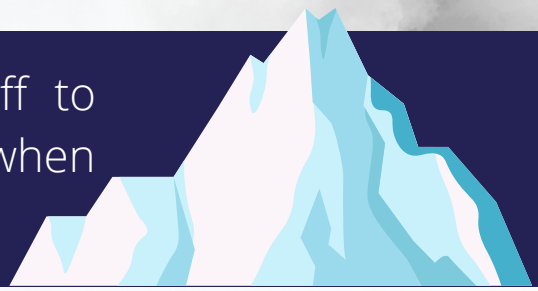
Glaciers begin to form when snow remains in the same area all year round. When the ice doesn't melt and where enough snow accumulates to transform into ice.

What causes **glaciers** to **move**?

Gravity helps glaciers to move through a valley. The melting ice helps to lubricate the glacier so it can slide easily. The average glacial speed varies greatly, but is typically around **1m per day.**

Fast moving glaciers can experience earthquakes.

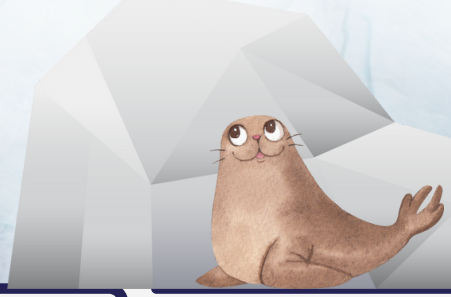
Some glaciers end in the ocean and break off to create **icebergs,** this is called **calving** and it's when an iceberg is born.



Why are some **glaciers blue**?

Glacial ice often appears blue when it has become very **dense** and free of bubbles. Glaciers and ice can help us understand what the weather and climate were like millions of years ago because of the bubbles of air.

The study of **glaciers** by glaciologists is called **glaciology**.



Did you know polar ice caps and glaciers exist on Mars?