



Y8 Golden Thread:
How does Geography Help Us Understand Processes?

KS3 Geography – Y8: Ice worlds Knowledge Organiser



Here are some key words from this topic. Can you add anymore?

Which processes have you studied?

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What and when was the last ice age?

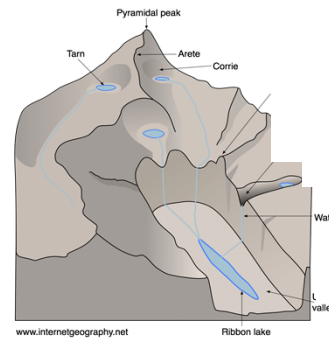
Around 110,000 years ago the Earth got colder and colder, an Ice age began. Over time an ice sheet, a solid mass of deep ice, spread over Northern Europe and most of the British Isles. About 10,000 years ago the ice age ended and the ice melted away.

How do glaciers form?

Glaciers develop over many years in places where snow has fallen but not melted. Snow is compacted and turns to ice. The weight of the ice means that it starts to slip down mountain sides over time.

A glacier is a system. There is a zone of accumulation where snow is added. This is normally at the start of a glacier in a highland area. As more and more snow falls, it is compacted so the bottom layers become ice.

Ice moves downhill due to the force of gravity.



Glacial landforms formed through erosion:

- Corrie
- Arête
- Tarn
- U-shaped valley

Glacial landforms formed through deposition:

- Moraine
- Erratic



Economic benefits of glaciers - tourism
(tour guides, hospitality, transport, mountain climbing)

Climate change, due to human activities such as burning fossil fuels, is causing global temperatures to increase. This is causing glaciers to melt at even faster rates. Melting glaciers have social, economic and environmental impacts.

- 1) **Sea-level rise** – glacial melt is contributing to sea level rise, affecting low lying coastal regions.
- 2) **Reduction of drinking water** – Glacial melt is essential drinking water especially in parts of Asia (China and India). If glaciers retreat or even disappear, this could impact millions of people across the world. Glacial melt currently provides water for 22% of the worlds population.
- 3) **Impact on tourism** – Glacier melt can reduce tourist numbers due to the decline in the attraction of the glacier as well as retreating/ melting glaciers are much harder to access.



erosion (n)	Erosion is the wearing away of the land by forces such as water, wind, and ice.
transportation (n)	Glaciers move very slowly. As they move, they transport material from one place to another.
deposition (n)	Deposition is the laying down of sediment carried by wind, flowing water, the sea or ice.
ice age (n)	ice age, also called glacial age, any geologic period during which thick ice sheets cover vast areas of land.
abrasion (n)	the process of scraping or wearing something away.
accumulate (v)	a mass or quantity of something that has gradually gathered.
u-shaped valley (n)	Glaciation develops in established v-shaped river valleys where the ice erodes the surrounding rocks to create a "U" shaped valley with a flat bottom and steep sides.
corrie (n)	A corrie is an armchair-shaped hollow found on the side of a mountain. This is where a glacier forms.

CEIAG Link: For this topic we can make links to a variety of professions:

- Environmental Agency Advisor
- Environmental Scientist
- Glaciation Researcher
- Cartographer



If you are interested in the above careers, don't forget you can do some research and speak to Mrs Ackroyd.

