

Changing Landscapes: Glaciated Landscapes

Climate change and its
impacts

What you need to know

- Causes of climate change through the Quaternary Ice Age including glacial, interglacial and stadial periods and thresholds for change
- Causes of changes in the glacier budget through historical time including the Little Ice Age
- Past distribution of valley glaciers and ice sheets during the Quaternary Ice Age
- Present day distribution of ice masses including valley glaciers and ice sheets

Research task

How and why climate has changed throughout the Quaternary Period, and its impacts on the distribution of ice masses (valley glaciers and ice sheets)

To include the following:

- What is meant by these terms: glacial, interglacial and stadial period
- The cycles of changing temperature during the Quaternary Ice Age: time scales, UK names for the different episodes, amount and rates of temperature change
- Brief details about the causes of these cycles – and the thresholds for change
- Causes of changes in the glacier budget through historical time including the Little Ice Age
- The changing distribution and extent of ice masses during the Quaternary up to the present day – this should include details at the global, European and UK scales

Resources – useful starting points

Quaternary Ice Age – Wikipedia (naturally) has some useful starting points

GCSE level details about Milankovitch cycles:

<http://geography.about.com/od/learnabouttheearth/a/milankovitch.htm>)

Pleistocene Ice Age – Wikipedia.

Historical climate change (Holocene Climate Change):

<http://www.atmo.arizona.edu/students/courselinks/fall12/atmo336/lectures/sec5/holocene.html>

Royal Geographical Society (changes in ice sheets during the quaternary):

<http://www.rgs.org/OurWork/Schools/Teaching+resources/Key+Stage+3+resources/Glaciation+and+geological+timescales/Ice+Ages+and+geological+timescales.htm> – which provides teaching resources, not all of which are useful as they are worksheets for use in the classroom, but it does have two PowerPoint slideshows...which have lots of useful info including maps of glacial extent, though seem to be mainly about the Last Glacial Maximum (LGM - Late Devensian, c.18k years ago).