Geological timescale of the Ice Age in Britain (not to scale)

Epoch	Age in years	Stage	Climate	Oxygen isotope stages*	Archaeology
Holocene	0 10,000	Flandrian	Present interglacial	1	**Neolithic** **Mesolithic**
Pleistocene	20,000 80,000	Devensian	Glacial	2-5d	Neanderthals become extinct Modern humans (Homo sapiens) arrive in Europe
	120,000	Ipswichian	Warm	5e	
	150,000	Unnamed stage	Cold or glacial	6	
	200,000	'Aveley'	Warm	7	**Palaeolithic**
	250,000	Unnamed stage	Cold or glacial	8	
	300,000	'Purfleet'	Warm	9	
	350,000	Unnamed stage	Cold or glacial	10	Neanderthals (Homo neanderthalensis) evolve from Homo heidelbergensis
	400,000	Hoxnian	Warm	11	
	450,000	Anglian	Glacial	12	
	500,000	Cromerian	Climate of early stages uncertain	Pre-Anglian stages	Boxgrove, Sussex (Homo heidelbergensis) First evidence of humans in Britain (Norfolk) (c. 800,000 years?)
	2.6 million	Early Pleistocene stages			
Pliocene			Cool		

An ice age is a period when the Earth's climate cools sufficiently to form ice caps at the poles and on mountain ranges. There have been at least five ice ages in the Earth's past and we are currently living in what is known as the Quaternary Ice Age which started 2.6 million years ago.

In Britain there is evidence for great swings of climate within the last 500,000 years, with four temperate stages at least as warm as today, separated by cold stages with arctic conditions. As a general rule cold or glacial stages (shown in blue) lasted up to 100,000 years with warm stages (shown in grey) only lasting 10,000 - 15,000 years.

The 'Aveley' and 'Purfleet' interglacial stages are relatively recent additions to the British Quaternary timescale. Previously it was thought there was just one glacial stage (called the Wolstonian) between the Hoxnian and the Ipswichian interglacials, but this didn't tie up with the global Marine Isotope Timescale (see below). These new stages have been named after sites in Essex but the names have yet to be formerly adopted.

* *Oxygen Isotope Stages (OIS) or Marine Isotope Stages (MIS) are alternating cold and warm stages of the Ice Age which have been derived from deep sea core samples. The stages are identified by numbers starting at MIS 1 (the present day) and enable scientists to correlate Ice Age deposits and fossils in different parts of the world. The stages are based on the ratio of oxygen isotopes in marine molluscs and air bubbles trapped in glacial ice. This ratio can tell us global temperatures at a particular time in the past. The colder periods have been given even numbers and the warmer periods odd numbers. The Anglian glacial stage, for example (which witnessed the most severe glaciation in Britain), is Marine Isotope Stage 12 (MIS 12). Over 100 stages have been identified, going back to before the start of the Ice Age, 2.6 million years ago.*