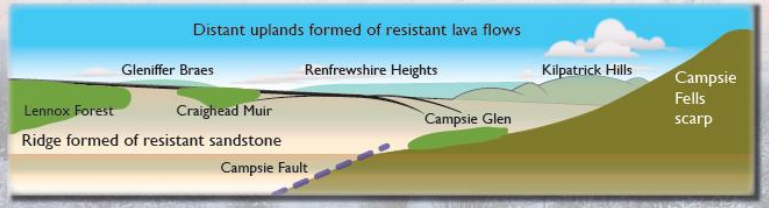
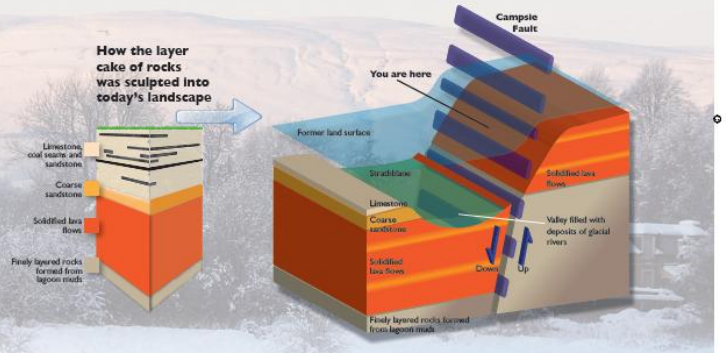
Bare bones of the landscape

The rocks beneath control the land shapes in front of you. And they in turn affect how wildlife and people use the land. 300 million years ago the Glasgow area sank down along huge ruptures in the Earth's crust. One of these, called the Campsie Fault, forms the steep face of the Campsies.

Above the fault-line, hard lava rocks are more resistant to being worn away by the elements. They make wild uplands, home to rare bog plants and soaring birds of prey. The down-faulted rocks below form the farmed lowlands.

More resistant, less fertile sandstone forms a ridge more favoured by foresters. Thinner beds of limestone were worked above Lennoxtown. The alum shale found within the limestone was processed in Macintosh's chemical works in the village, for use in dyeing textiles. On the slopes above Lennoxtown, the lime-rich spoil supports important species-rich grassland.





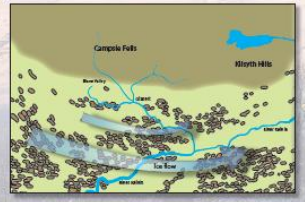
sustainable learning achieving
East Dunbartonshire Council
www.eastdunbarton.gov.uk

THE GEOLOGICAL SOCIETY OF GLASGOW

Icy touches on the landscape

15,000 years ago a vast ice sheet stretched below here as far as the eye can see. And that's nothing – at its full thickness the ice easily covered the Campsie Fells. If you travel a mile uphill from here along the Crow Road, to the left you'll see mounds of debris left as the ice melted off the tops.

Such thick ice moulded the rock debris at its base into the low hillocks called **drumlins**. These cover much of East Dunbartonshire, including the lower slopes above Lennoxtown, and the heights of Stockiemuir. The way the drumlins line up shows the ice moved either east or west across the lowlands. How do we know which? A highly distinctive rock type outcrops above Lennoxtown and nowhere else. Fragments of this rock are found in drumlins miles to the east, indicating that the ice sheet flowed that way.



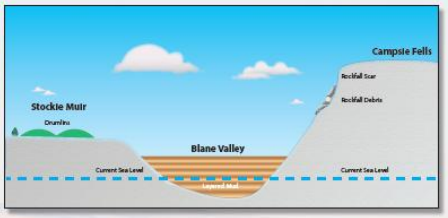
Eventually the glaciers melted down to blocks of ice sitting in hollows amongst the drumlins. The rough mix of stones, sand and clay left by the ice is called till, and often does not let water seep through. Those hollows that now hold lochans are called **kettle holes** – excellent habitat for wetland birds.

Far left:
View of the Campsie Fells from Whitefield pond.

Left:
Lochan of Campsie.

Right:
Looking out over Lennoxtown and beyond.

The **flat bottoms** of the straths hide deep valleys scoured out by flowing ice. The Glazert Valley below here is floored with gravel from rivers that gushed from the melting glaciers. In contrast, it is finely layered mud that thickly fills the flat Blane Valley further west. This mud formed 11,000 years ago, in a lake dammed up by a glacier filling the Loch Lomond basin.



The melting of the ice sheet removed an immense weight that had pushed the land down. It has been rising back up ever since. The resulting earthquakes may have caused huge rock falls in parts of the Campsie scarp. These are marked by steep rock scars and massive boulder mounds below them. You can see them left of the road as you travel down to Lennoxtown.

A pretty major ice age facelift!

sustainable, thriving, achieving
East Dunbartonshire Council
www.eastdunbarton.gov.uk

THE GEOLOGICAL SOCIETY OF GLASGOW