Landforms shaped by glacial erosion

What is a landform?
Match the erosional landforms

1. Corries
2. Arêtes
3. Pyramidal Peaks
4. U-shaped valleys
5. Hanging valley

a) A armchair shaped depression found high in the mountains
b) A wide valley with steep sides.
c) A small valley that hangs above a larger one.
d) Steep, pyramid-shaped mountain
e) A sharp ridge of rock.
Erosional landforms

- Corries
- Arêtes
- Pyramidal Peaks
- U-shaped valleys
Corrie [also known as cwm or corrie]
An armchair-shaped hollow with steep sides and back wall, formed as a result of glacial erosion high on a mountainside, and often containing a rock basin with a tarn.

Cwm Cau on the peak of Cadair Idris, Snowdonia National Park, Wales.
Corrie formation

Snow collects in a natural hollow on the side of a mountain. Over time, further snow collects. This extra weight compresses the snow underneath, turning it into ice.

The hollow is deepened and widened by the corrie glacier through the processes of **abrasion** and **plucking**. This overdeepening leads to the characteristic ‘armchair’ shape of a corrie and causes a ‘**rock lip**’ to be formed.
**Bergschrund**

An irregular crevasse, usually running across an ice slope in the accumulation area, where active glacier ice pulls away from ice adhering to the steep mountainside.
Corrie Mhic Fearchair, Torridon, Northwest Highlands.
Tarn
A small lake occupying a hollow eroded out by ice or dammed by a moraine; especially common in corries.

Two tarns on the Glyderau range, Snowdonia, North Wales, both occupying cirques. The tarn on the left is Llyn Bochllwyd and that in the centre is Llyn Llyn Idwal ("llyn" is Welsh for "lake").
Arête
(from the French) A sharp, narrow, often pinnacled ridge, formed as a result of glacial erosion from both sides.

Nevado Jirishanca, Cordillera Huayhuash, Peru.
Formation of corrie, arête and pyramidal peak
Pyramidal peak
A steep-sided, pyramid-shaped peak, formed as a result of the backward erosion of corrie glaciers on three or more sides.

Matterhorn, on Swiss/Italian border.
arete

pyramidal peak
U shaped valley formation

Water formed valley

Ice-formed valley

(a) Winding course around interlocking spurs.
Deep valley
Steep sloping sides
Narrow base

(b) Spurs removed by ice (truncated) to give straight course.
Hanging valley
Waterfall
Vertical sides
Very deep valley
Broad flat base

Before glaciation

Rounded relief
V-shaped valley
Interlocking spur

After glaciation

Pyramidal peaks
Corries
Truncated spur
Hanging valley
U-shaped valleys
U-shaped valley

A U-shaped valley often characterised by steep sides and a flat bottom, resulting primarily from erosion by strongly channelled ice.

Valley of Lauterbrunnen, Switzerland. The extremely steep valley sides result in impressive waterfalls, such as Staubbachfall.
Hanging valley
A tributary valley whose mouth ends abruptly part way up the side of the main valley, as a result of the greater amount of glacial down-cutting of the latter.

Hanging valley below Mitre Peak, Milford Sound, New Zealand.
A smaller tributary glacier could not erode the base of its valley as deep as the main valley glacier. Thus after the ice melts the smaller valley is left hanging above the main valley floor and enters it at up to 90°.