



Landform Dictionary

Images and Definitions for Landforms in the
National Seeds of Success Program

Last updated March 2026

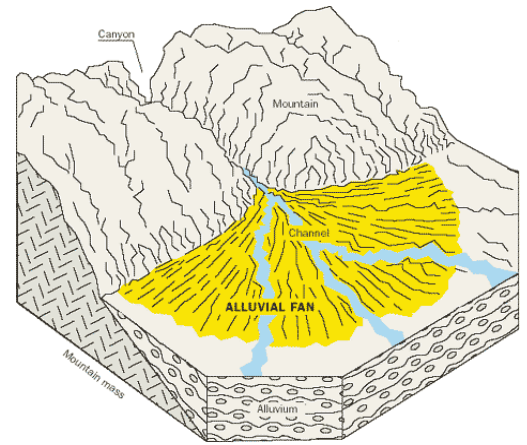
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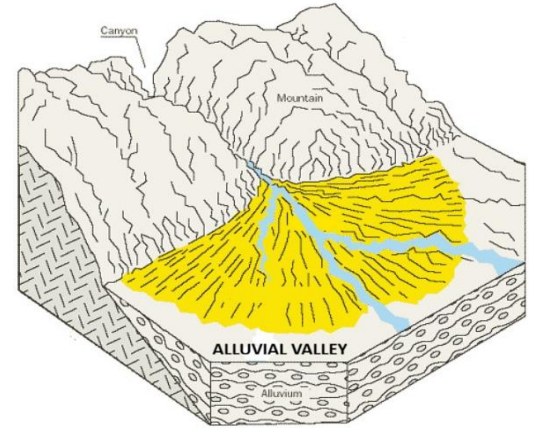
River/Stream-related

Alluvial Fan – An outspread mass of loose rock material deposited by a stream where it issues from a narrow mountain valley.



Source: <https://www.geocaching.com/geocache/GC7Z02Z>

Alluvial Valley – An elongate, relatively large, externally drained depression of the Earth's surface that is primarily developed by stream erosion or glacial activity and has accumulated alluvial material since its formation.



Arroyo – A small, deep flat-floored channel or gully of an ephemeral or intermittent stream. A term predominately used in the Southwest region to refer to a Wash or Runoff Channel (a dry channel that temporarily or seasonally fills and flows after sufficient rain).



Source: <https://www.usgs.gov/media/images/a-photo-ernst-arroyo-canyon>

Badlands – An intricately stream-dissected topography, characterized by a very fine drainage network with high drainage densities and short steep slopes with narrow interfluves.



Source: <https://en.wikipedia.org/wiki/Badlands>

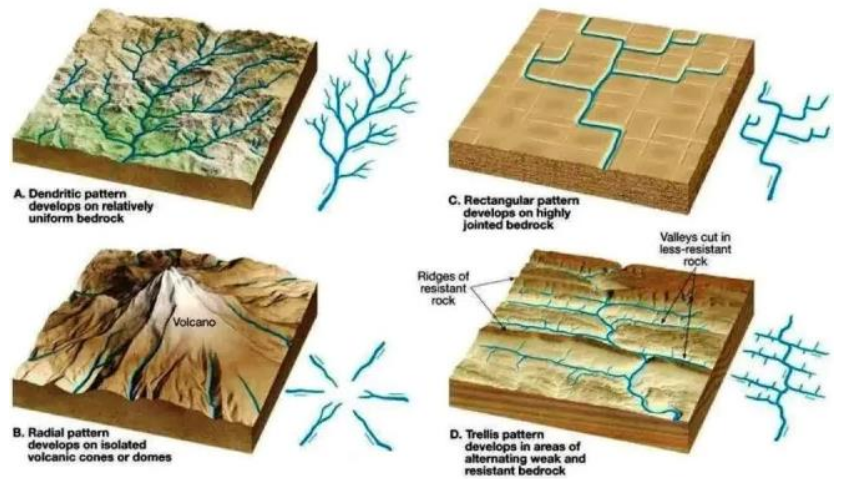
Bajada – A series of alluvial fans along a mountain front. Broad alluvial slope extending from the base of a mountain range into an inland basin.



Source: [https://en.wikipedia.org/wiki/Bajada_\(geography\)](https://en.wikipedia.org/wiki/Bajada_(geography))

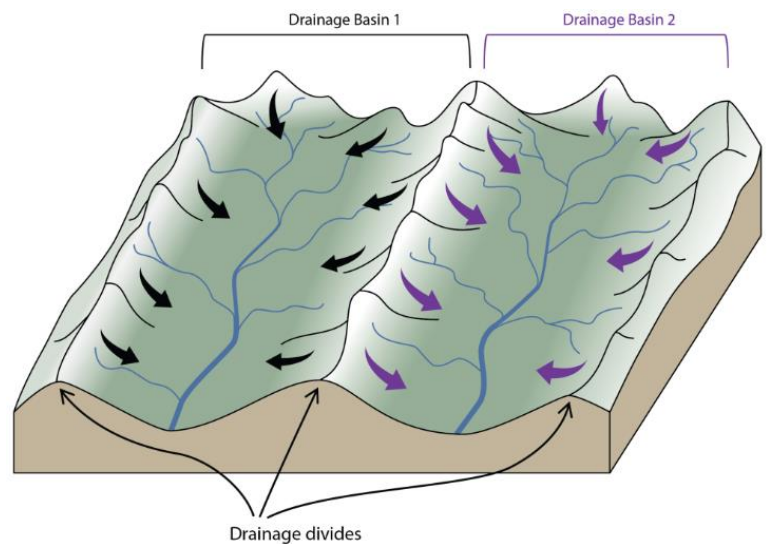
Drainage patterns

Drainage – Drainages tend to develop along zones where rock type and structure are most easily eroded. Various types of drainage patterns can develop and reflect the rock type and structure.



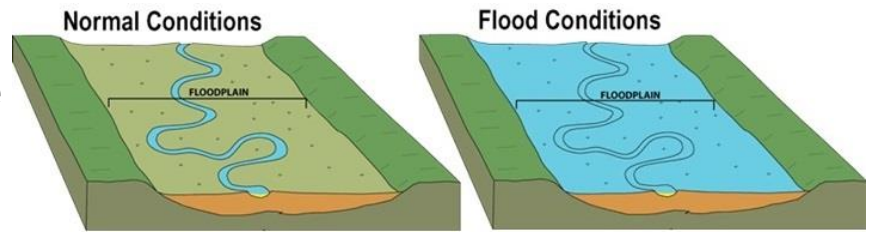
Source: <https://www.geologyin.com/2014/03/drainage-pattern.html>

Drainage Basin – An area of land in which all flowing surface water converges to a single point, such as a river mouth; or flows into another body of water, such as a lake or ocean.



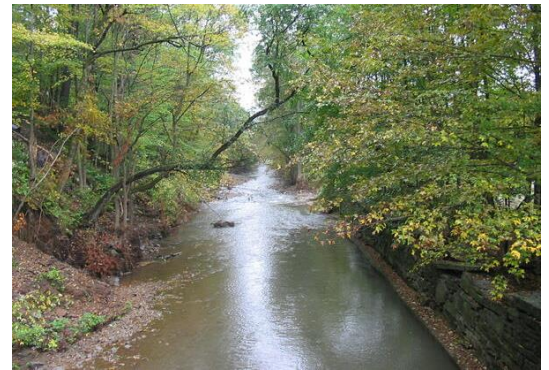
Source: <https://minnstate.pressbooks.pub/environmentalgeology/chapter/drainage-basins-2/>

Floodplain – A smooth land adjacent to a river channel, constructed by the present river and covered with water when the river overflows.



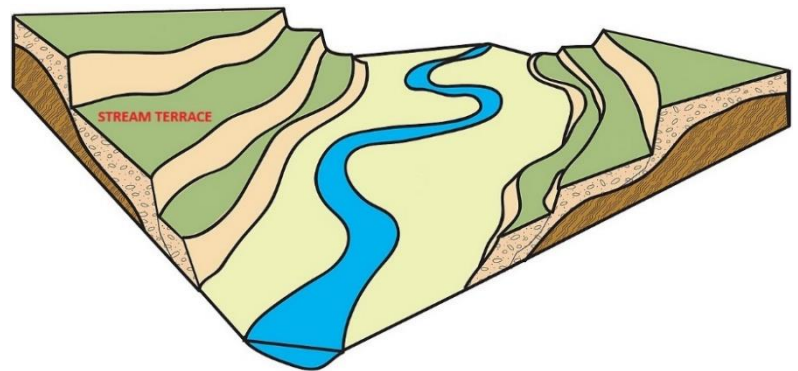
Source: <https://www.peachtreecornersga.gov/222/Floodplain-Management>

Stream Reach – A section of a stream or river along which similar hydrologic conditions exist, such as discharge, depth, area, and slope. It can also be a length of river for which the characteristics are well described by readings at a single streamgauge.



Source: <https://www.usgs.gov/faqs/what-a-reach>

Stream Terrace – One of a series of platforms in a stream valley, flanking and relatively parallel to the stream channel, originally formed near the level of the stream and representing the dissected remains of an abandoned flood plain, stream bed, or valley floor.



Source: https://en.wikipedia.org/wiki/File:A_series_of_paired_river_terraces.jpg

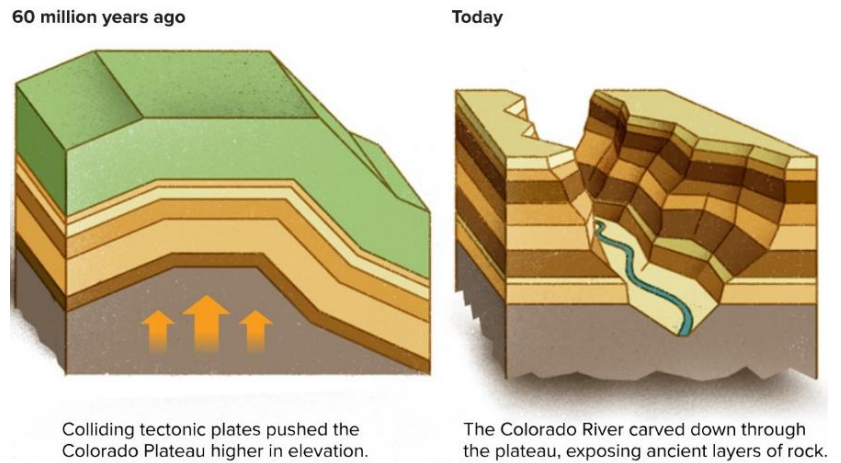
Wash – Broad, gravelly bed of an intermittent stream, often situated at the bottom of a canyon, occasionally filled by a torrent of water. Also known as an Arroyo in arid and semi-arid regions.



Source: [https://en.wikipedia.org/wiki/Arroyo_\(watercourse\)](https://en.wikipedia.org/wiki/Arroyo_(watercourse))

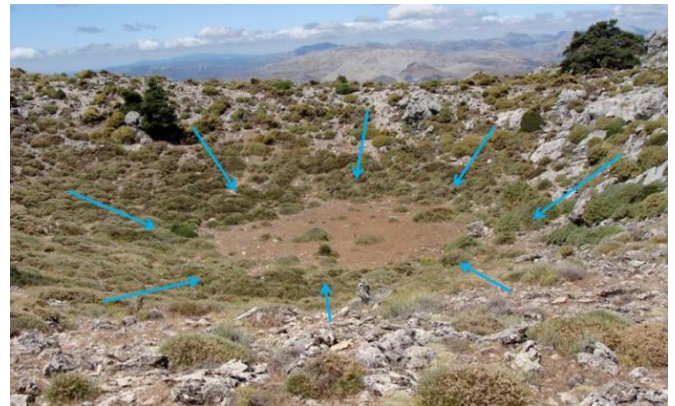
Canyons/Valleys/Cut Features

Canyon – A long, deep, relatively narrow steep-sided valley confined between lofty and precipitous walls in a plateau or mountainous area, often with a stream at the bottom; larger than a gorge.



Source: <https://knowablemagazine.org/content/article/physical-world/2019/deeper-understanding-grand-canyon>

Depression – A relatively sunken part of the surface drainage area, as an interior basin or a karst sinkhole. Also called a doline.



Source: https://www.researchgate.net/figure/A-The-small-doline-B-A-well-developed-bowl-shaped-doline-with-asymmetric-wall-slopes_fig7_360046083

Draw – A deep, narrow cleft between escarpments, cliffs, or mountains that resulted from weathering and river erosion. Often a small stream channel, more open and with a broader floor than a gulch.



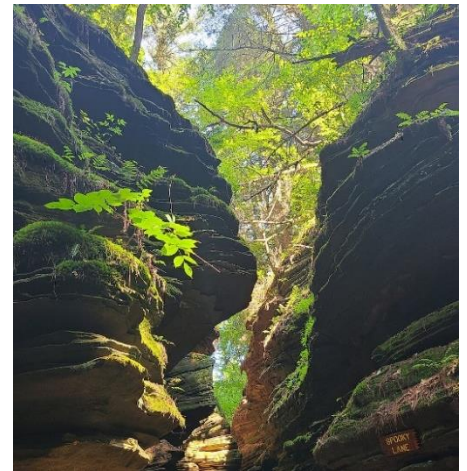
Source: [https://en.wikipedia.org/wiki/Draw_\(terrain\)](https://en.wikipedia.org/wiki/Draw_(terrain))

Gorge – A narrow, deep valley with nearly vertical, rock walls; smaller than a canyon and steeper than a ravine.



Source: <https://education.nationalgeographic.org/resource/gorge/>

Gulch – A narrow deep ravine with steep sides; larger than a gully.



Source: <https://en.wikipedia.org/wiki/Gulch>

Gully – A small channel with steep sides cut by running water and through which water ordinarily runs only after a rain, ice, or snow melt.



Source: <https://en.wikipedia.org/wiki/Gully>

Ravine – A small, narrow, steep-sided valley larger than a gully, smaller than a canyon, and usually carved by running water.



Source: <https://en.wikipedia.org/wiki/Ravine>

Rift Valley – A valley that has developed along a rift, which is a long, narrow continental trough that is bounded by normal faults.



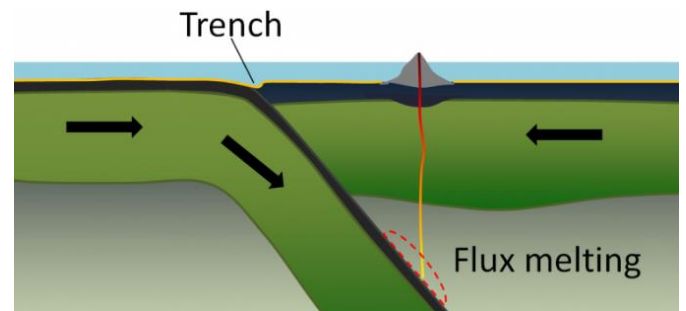
Source: <https://education.nationalgeographic.org/resource/rift-valley/>

Swale – A slight depression, sometimes swampy, in the midst of generally level land.



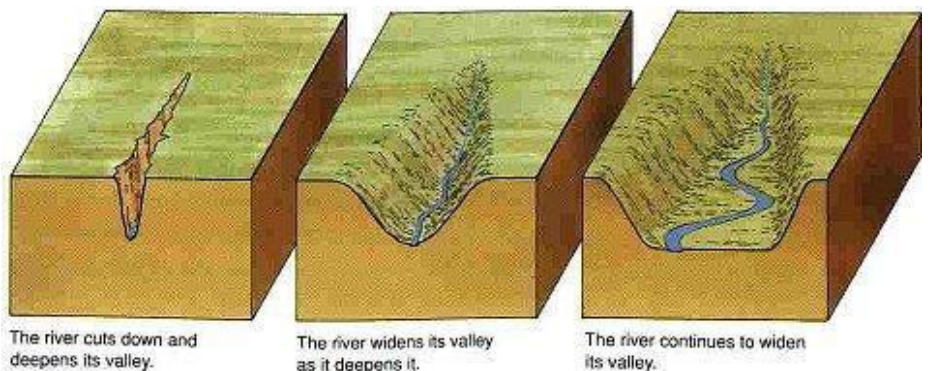
Source: [https://en.wikipedia.org/wiki/Swale_\(landform\)](https://en.wikipedia.org/wiki/Swale_(landform))

Trench – A narrow, deep, steep-sided depression eroded by a stream, river, or created by geological movement of tectonic plates.



Source: <https://rwu.pressbooks.pub/webboceanography/chapter/4-6-convergent-plate-boundaries/>

Valleys – An elongated, relatively large area often running between hills or mountains that formed by the erosion of the land surface by rivers, streams, or glacial ice.

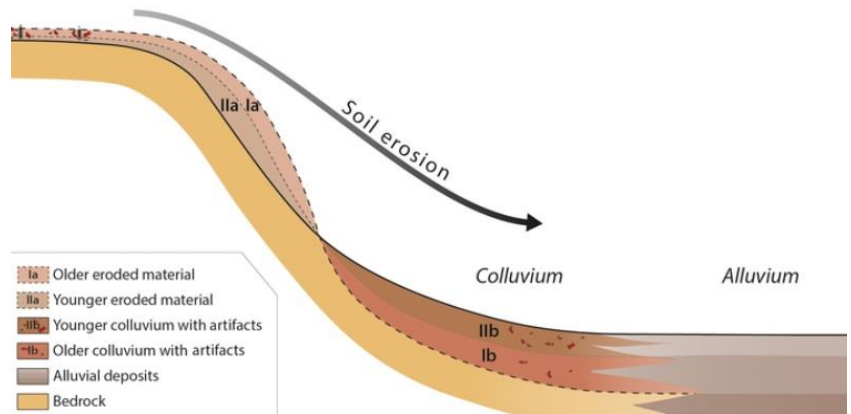


Source: <https://www.coolgeography.co.uk/GCSE/Year%2010/PhysicalWorld/Upper%20valley/Vshaped.JPG>

Eroding Features

Colluvium –

Unconsolidated, unsorted earth material being transported or deposited on sideslopes and/or at the base of slopes by mass movement (e.g. direct gravitational action) and by local, unconcentrated runoff.



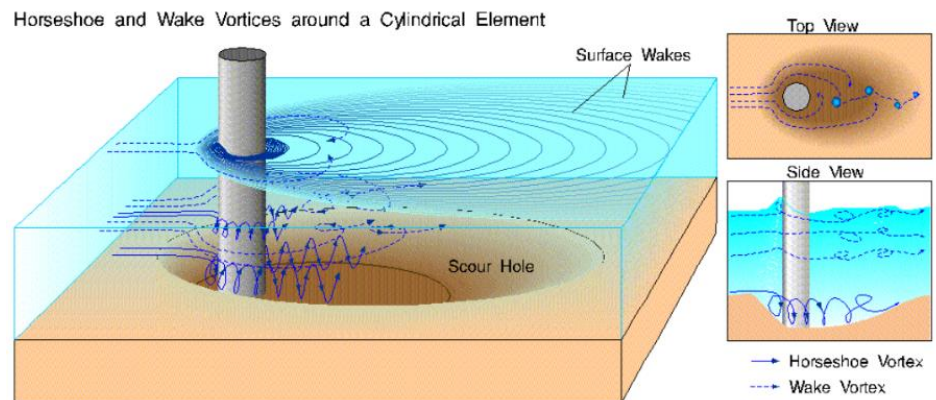
Source: https://www.researchgate.net/figure/Simplified-sketch-of-the-acceleration-of-soil-erosion-and-the-development-of-colluvium_fig5_373697302

Colluvial Fan – Typically loosely consolidated angular material located at the base of a steep hill slope or cliff. Colluvium accumulates either at the base of or within gullies and hollows within hillslopes.



Source: <https://en.wikipedia.org/wiki/Colluvium>

Scour – A feature resulting from the powerful, concentrated clearing and digging action of flowing air, water or ice.



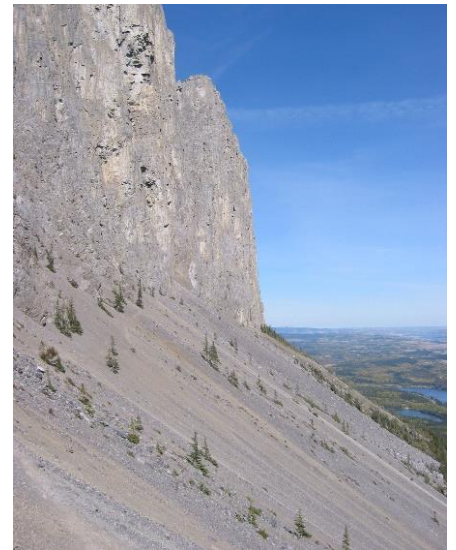
Source: <https://www.usgs.gov/news/science-snippet/earthword-scour>

Scree – A collective term for an accumulation of coarse rock debris or a sheet of coarse debris mantling a slope. Scree is not a synonym of talus, as scree indicates loose, coarse fragment material on slopes without cliffs.



Source: <https://en.meteorologiaenred.com/what-is-a-scree.html>

Talus – Rock fragments derived from and lying at the base of a cliff or very steep, rocky slope.



Source: https://upload.wikimedia.org/wikipedia/commons/e/e0/Yamnuska_bottom_cliff.jpg

Lowlands

Basin – A depressed area with no surface outlet that slopes downward from all sides towards a central point, often resembling a bowl.



Source: https://www.americansouthwest.net/utah/uinta-mountains/naturalist-basin-lakes_1.html

Bottomland – Low-lying, level land, usually highly fertile; an alluvial plain or a flood plain; the floor of a valley.

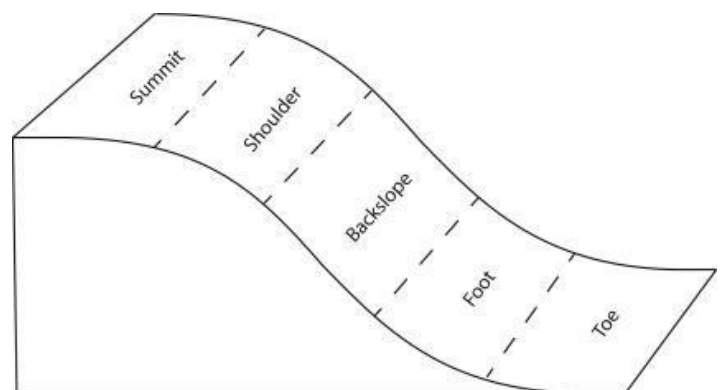
Coastal Plain – An area of low-lying land, flat or gently sloping toward the water, adjacent to a seacoast.



Source: <https://gelogia.com/coastal-plain-definition-and-subdivisions/>

Floor – The bottom of a depression, such as the floor of a crater or a valley.

Footslope – An inner gently inclined surface at the base of a slope. Surface profile is generally concave and a transition between backslope and toeslope.



Source: <https://www.sciencedirect.com/topics/earth-and-planetary-sciences/hillslope>

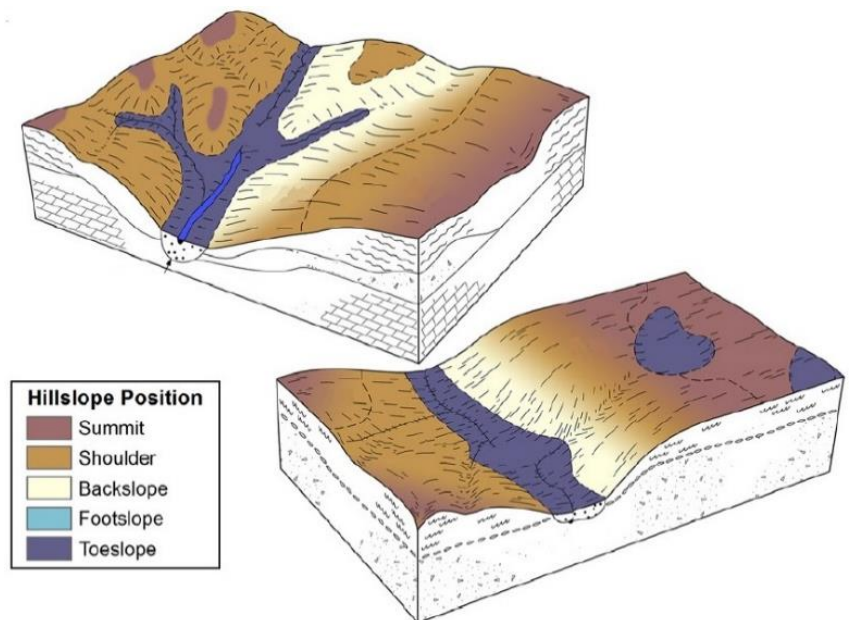
Lowlands – The low, relatively level ground of a region, in contrast with the adjacent, higher country.

Plains – Extensive, lowland area that ranges from level to gently sloping or undulating, with few or no prominent hills or valleys.



Source: <https://www.researchgate.net/publication/271130831>

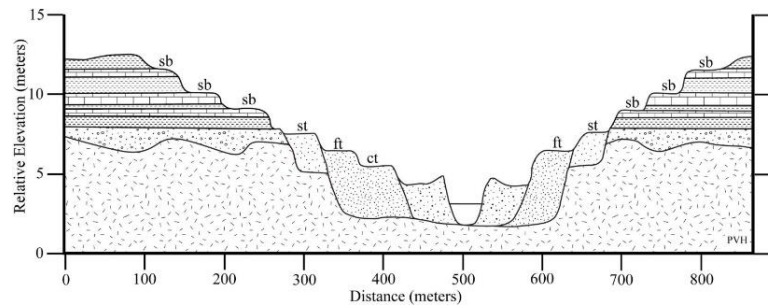
Toeslope – The outermost gently inclined surface at the base of a slope. Surface profile is commonly gentle and linear and characterized by alluvial deposition.



Source: <https://www.researchgate.net/publication/271130831>

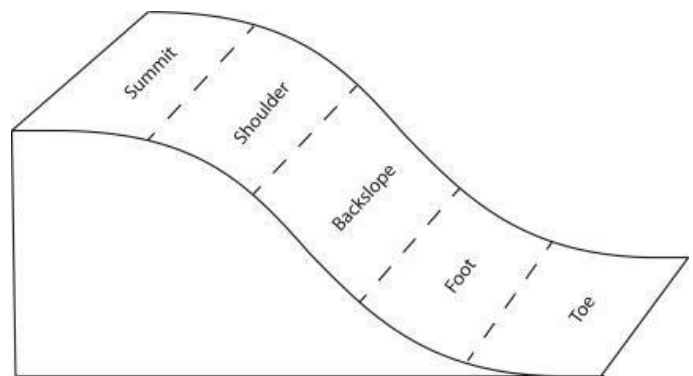
Intermediate Elevations

Bench – A level, or nearly level, strip of land that dissects a generally steeper slope.



Source: [https://en.wikipedia.org/wiki/Bench_\(geology\)](https://en.wikipedia.org/wiki/Bench_(geology))

Backslope – The hillslope position that forms the steepest and generally linear, middle portion of the slope. May include cliff segments.



Source: <https://www.sciencedirect.com/topics/earth-and-planetary-sciences/hillslope>

Escarpment – A long, continuous cliff or steep slope facing in one general direction, separating two level or gently sloping surfaces and produced by erosion or faulting.



Source: <https://education.nationalgeographic.org/resource/escarpment/>

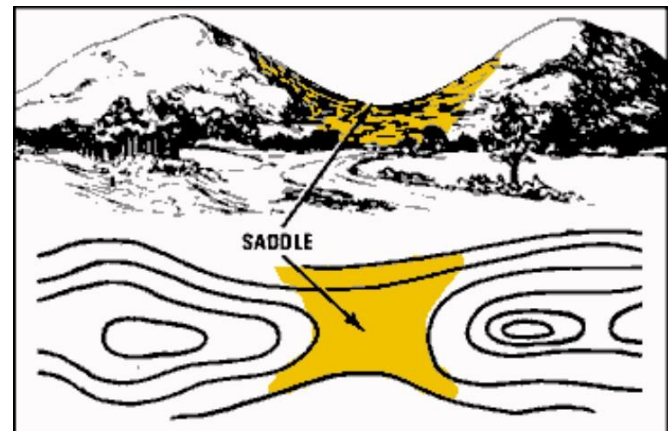
Foothills – A region of relatively low rounded hills at the base of or fringing a mountain range.



Source: https://en.wikipedia.org/wiki/Rocky_Mountain_Foothills

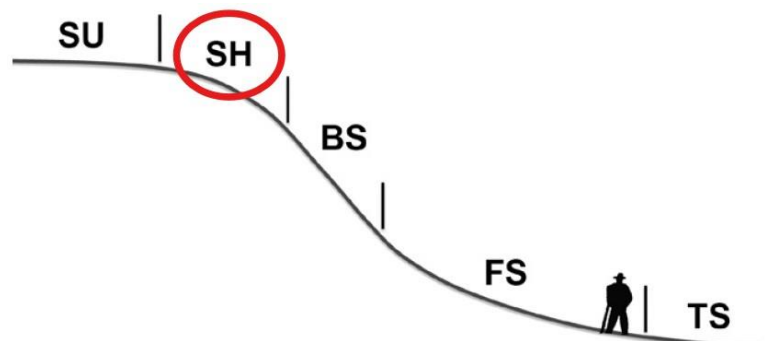
Hillslope – Part of a hill, between its crest and the drainage line at the foot of the hill.

Saddle – A low point in the crest of a ridge, commonly between the heads of streams flowing in opposite directions.



Source: <https://www.educationconnection.com/army-study-guide/identify-major-minor-terrain-features/>

Shoulder – The uppermost inclined surface at the top of a slope. The transition zone from back slope to summit, with a dominantly convex surface profile.



Source: <https://www.researchgate.net/publication/271130831>

Uplands

Bald – An elevated grassy area, as a mountain top or high meadow, that is devoid of trees.



Source: [https://en.wikipedia.org/wiki/Bald_Mountain_\(California\)](https://en.wikipedia.org/wiki/Bald_Mountain_(California))

Ballon – A rounded or dome-shaped hill formed either by erosion or by uplift.



Source: https://en.wikipedia.org/wiki/Grand_Ballon

Cliff – A high, very steep to perpendicular or overhanging face of rock; a precipice.



Source: https://en.wikipedia.org/wiki/Notch_Peak_Formation

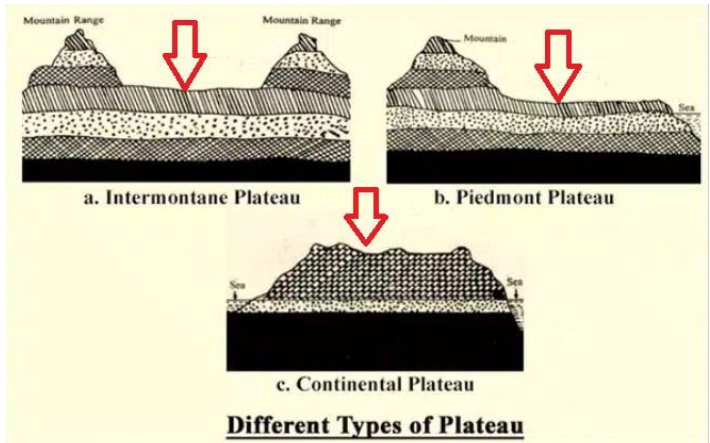
Highland – A large area of elevated or mountainous land standing prominently above adjacent low areas; a mountainous region.

Hills – A natural elevation of the land surface, rising rather prominently above the surrounding land, generally less than 300 meters from base to summit.



Source: <https://en.wikipedia.org/wiki/Landform>

Plateau – An extensive upland mass with a flat summit area that is considerably elevated above the adjacent lowlands, separated by escarpments.



Source: <https://lotusarise.com/types-of-mountains-plateaus-and-plains/>

Ridge – A long, narrow elevation of the land surface, usually sharp crested with steep sides.



Source: <https://fastwindtoaim.blogspot.com/2013/02/erosion-landform-19-ridge.html>

Rim – The border, margin, edge, or face of a landform such as the curved brim surrounding the top part of a crater caldera, or the rimrock of a plateau or canyon.



Source: <https://en.wikipedia.org/wiki/Canyon>

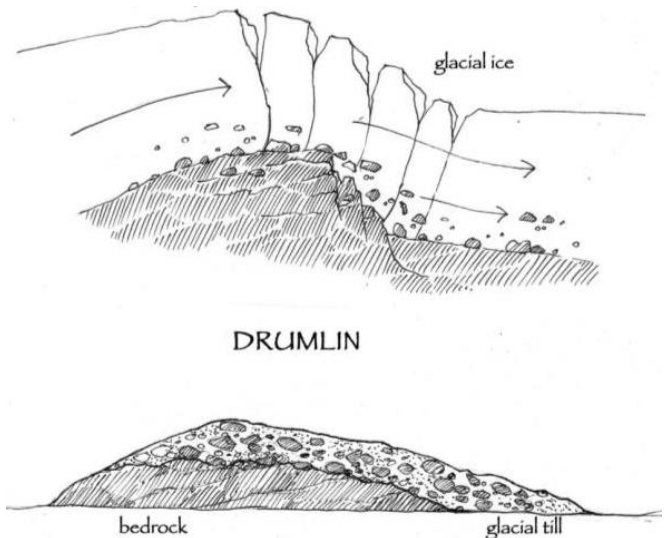
Glacial

Drift – All sediment transported by glaciers or glacial meltwater.



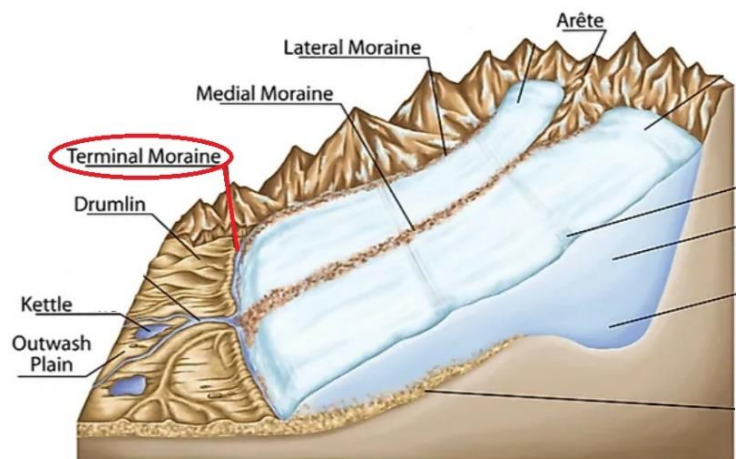
Source: [https://en.wikipedia.org/wiki/Drift_\(geology\)](https://en.wikipedia.org/wiki/Drift_(geology))

Drumlin – An elongated hill formed by glacial ice acting on underlying unconsolidated till or ground moraine.



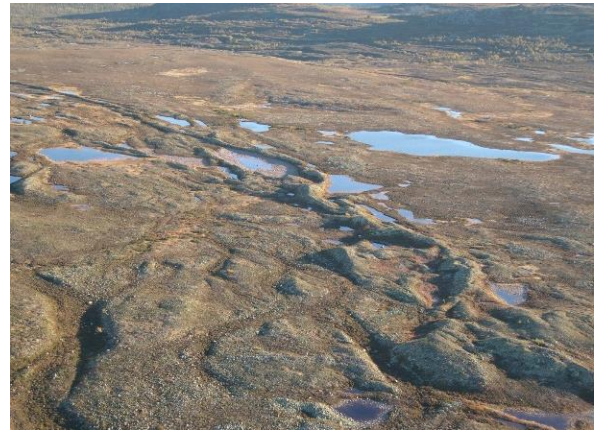
Source: https://northernwoodlands.org/outside_story/article/drumlins-erratics

End Moraine – A feature consisting of accumulated rocks, dirt, and other debris that have been deposited by a glacier. Also called the terminal moraine.



Source: <https://www.worldatlas.com/articles/a-list-of-glacial-d%20eositional-features-or-landforms.html>

Esker – Meandering narrow ridges of stratified drift deposited at the edges of a glacier’s path.



Source: <https://en.wikipedia.org/wiki/Esker>

Glacial Lake Island – A landform that exists above water level in a glacial lake (depressions made by a glacier that are filled as the ice melts). Typically bedrock or a moraine.



Source: <https://science.nasa.gov/earth/earth-observatory/alaskas-brand-new-island-154764/>

Kame – An irregularly shaped hill or mound that was created by debris falling through and accumulating in glacier crevasses.



Source: <https://en.wikipedia.org/wiki/Kame>

Kettle – A depression or hole in an outwash plain formed by retreating glaciers or draining floodwaters.



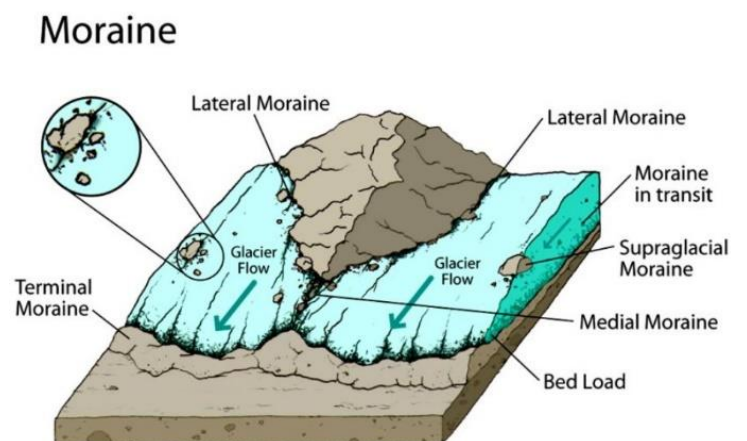
Source: [https://en.wikipedia.org/wiki/Kettle_\(landform\)](https://en.wikipedia.org/wiki/Kettle_(landform))

Lacustrine (Lake) Plain – A plain formed by the sediment accumulation of a lake in the past; formed via glacial drainage, differential uplift, or inland lake creation and drainage.



Source: https://en.wikipedia.org/wiki/Lacustrine_plain

Moraine – A landform created from deposited, unstratified drift and debris that was accumulated on the glacier surface before it retreated.



Source: <https://education.nationalgeographic.org/resource/moraine/>

Outwash Plain – Flat areas in the path of a glacier, made by meltwater outwash (water flowing away from the glacier) carrying the drift and sediment eroded during glacial flow.



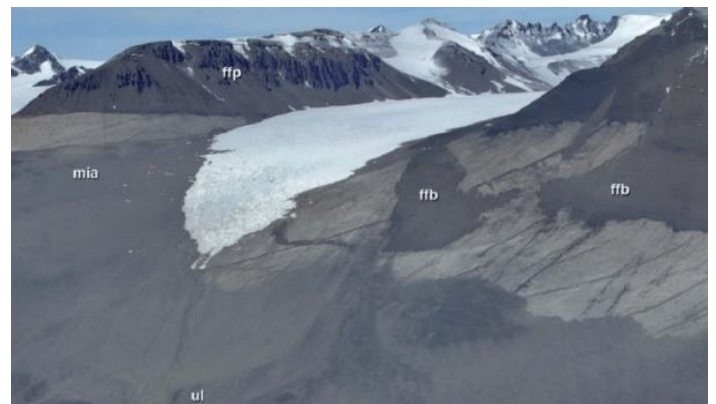
Source: <https://www.nps.gov/articles/outwashplainsandeskers.htm>

River Island – An accumulation of sediment and drift formed by an obstruction in or redirection of a proglacial river. Also called braid bars.



Source: https://en.wikipedia.org/wiki/Braid_bar

Till Plain – An extensive flat plain of glacial till formed when a sheet of ice becomes detached from the main body of a glacier and melts in place, depositing the sediments it carried.



Source: https://www.researchgate.net/figure/Local-glacial-till-ul-with-prominent-arcuate-moraine-ridges-Alpine-2-till-of-Hall-et_fig18_301546120

Miscellaneous

Blowout – A hollow or depression formed by wind erosion on a preexisting dune or butte, especially in an area of shifting sand or loose soil, or where protective vegetation is disturbed or destroyed.



Source: https://www.researchgate.net/figure/A-small-bowl-blowout-at-Cape-Cod-Note-that-the-blowout-will-soon-be-notched-as-the_fig3_306400731

Beach Ridge – A wave-deposited or wave-swept ridge running parallel to a shoreline.



Source: https://en.wikipedia.org/wiki/Beach_ridge

Break – A marked variation of topography or a tract of land distinct from adjacent land, or an irregular and rough piece of ground.

Drumlin Field – A landscape characterized by swarms of closely spaced drumlins (hills of sediment in the shape of half buried eggs, generally a quarter mile or more in length), commonly separated by small marshy tracts.



Source: <https://dalesrocks.org.uk/ribblesdale/geological-processes/drumlin-fields-a-basket-of-eggs/>

Dune Field – An expanse covered by dunes (hills of loose sand built by aeolian processes or the flow of water).



Source: <https://www.nps.gov/places/the-dunefield.htm>

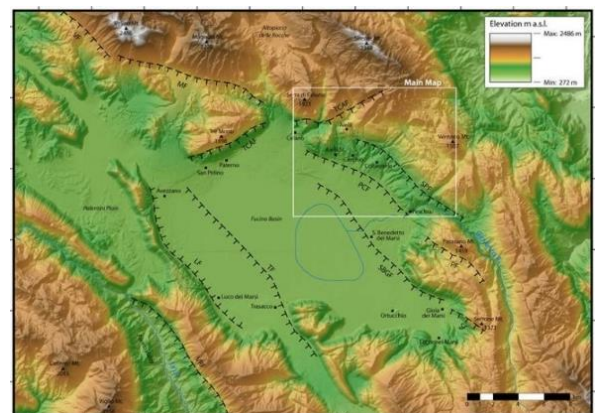
Flat – A level surface or small area of land marked by little or no relief.

Hummock – A rounded or conical knoll, mound, hillock or other small elevation.



Source: <https://en.wikipedia.org/wiki/Hummock>

Intermontane Basin – A sediment-filled depression that developed adjacent to and between uplifts or mountain ranges.



Source: https://www.researchgate.net/figure/Topography-of-the-Fucino-intermontane-basin-and-surrounding-regions-m-asl-metres_fig2_349311579

Knob and/or Mound – A rounded hill or mountain, generally composed of soil.



Source: <https://en.wikipedia.org/wiki/Mound>

Lakeshore – The land bordering or touching a lake.



Source: https://en.wikipedia.org/wiki/Sleeping_Bear_Dunes_National_Lakeshore

Seep – A small area where water or oil percolates slowly to the land surface.



Source: https://en.wikipedia.org/wiki/Petroleum_seep

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