Landscape
Review Note Cards

Landscapes

Last Ice Age

Pleistocene Epoch that occurred about 22,000 Years ago

Landscapes

Glacier

"A large, long lasting mass of ice which forms on land and moves downhill because of gravity."

Landscapes

Continental Glacier

"A thick mass of ice that covers an extremely large area."
Also known as Ice Sheets.
Antartica & Greenland.

Landscapes

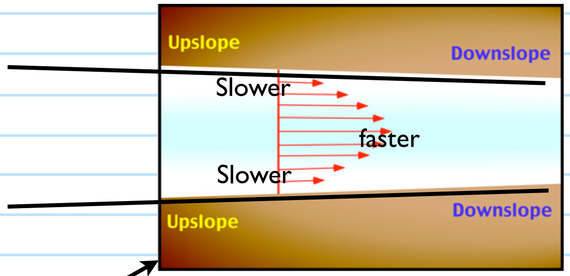
Valley Glacier

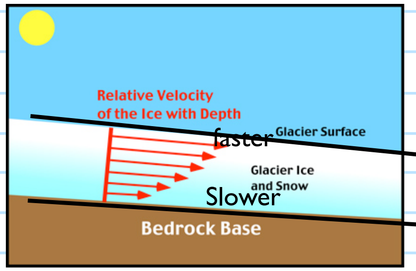
Occur in mountainous regions and are confined to valleys.
Also known as Alpine Glaciers.
The most common form.

Landscapes

Glacier Movement

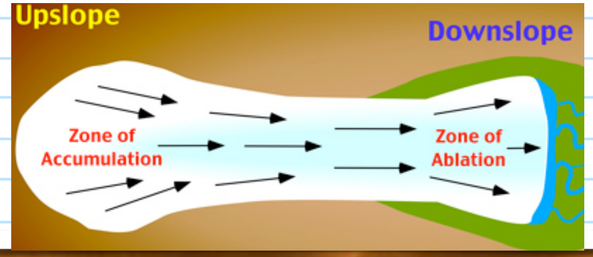
Glaciers move much like rivers.





side view

Top views



Glacier Movement

Glaciers move downhill by gravity.

Accumulation > Ablation = advance

Accumulation < Ablation - Retreat

Ablation = Melting

Accumulation=Ablation-Equilibrium

Landscapes

Till

"Unsorted rock material deposited by a glacier."

Moraine

"Pile of unsorted rock material deposited by the Glacier."

- "Terminal Moraine" at end.
- "Lateral Moraine" at sides.
- "Medial Moraine" in Middle.

Landscapes

Outwash

"Sorted rock material deposited by the meltwater from a glacier."

Landscapes

Erratic

A large rock transported & deposited by a glacier. (example: Rocking Stone)

Transported Sediment

Landscapes

Kettles and Kettle Lakes

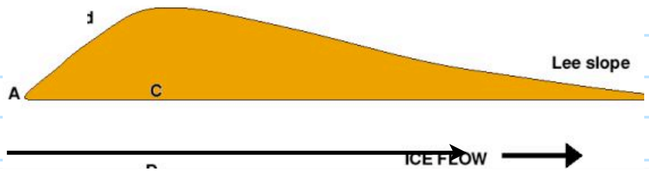
A large chunk of ice that makes a deep depression in the ground.

Sometimes gets filled with water

Landscapes

Drumlin

"Teardrop shaped hills of glacial till." Pointed part of the "tear" shows the direction of movement.



Landscapes

U Shape Valley

Valley Carved from a moving glacier

Landscapes

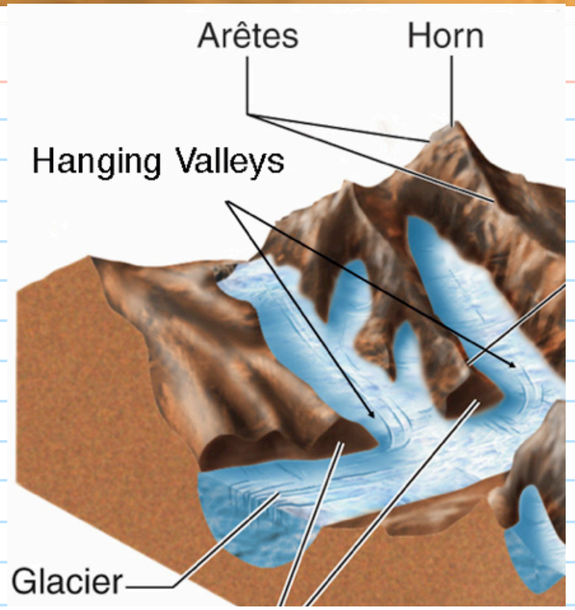
Striations

Striations are grooves or scratches left behind in the bedrock after a glacier has passed over it & show the direction that the ice took.

(see Manor Park)

Landscapes

Other Glacial Features



Landscapes

NYS Glacial Features

Long Island – Terminal Moraine
Finger Lakes – Glacier Erosion
Great lakes – Glacial Erosion

Landscapes

Ocean Currents

Wind generated water movement that distributes heat energy around the globe.
They have a major effect on climates.
(see ESRT p. 4)

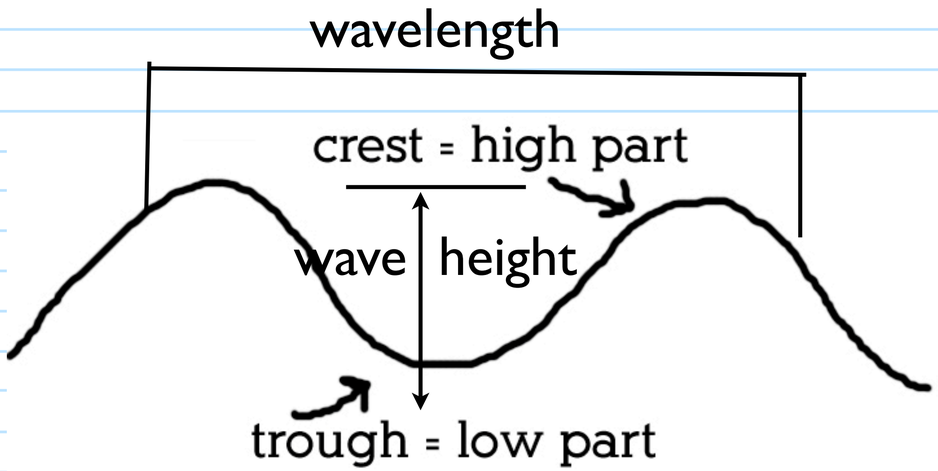
Landscapes

Waves

Energy moving through the water. The water does not move forward but in a circular path.

Landscapes

Features of a Wave



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Wave Action

Wave caused shoreline erosion & deposition that alter the shore.

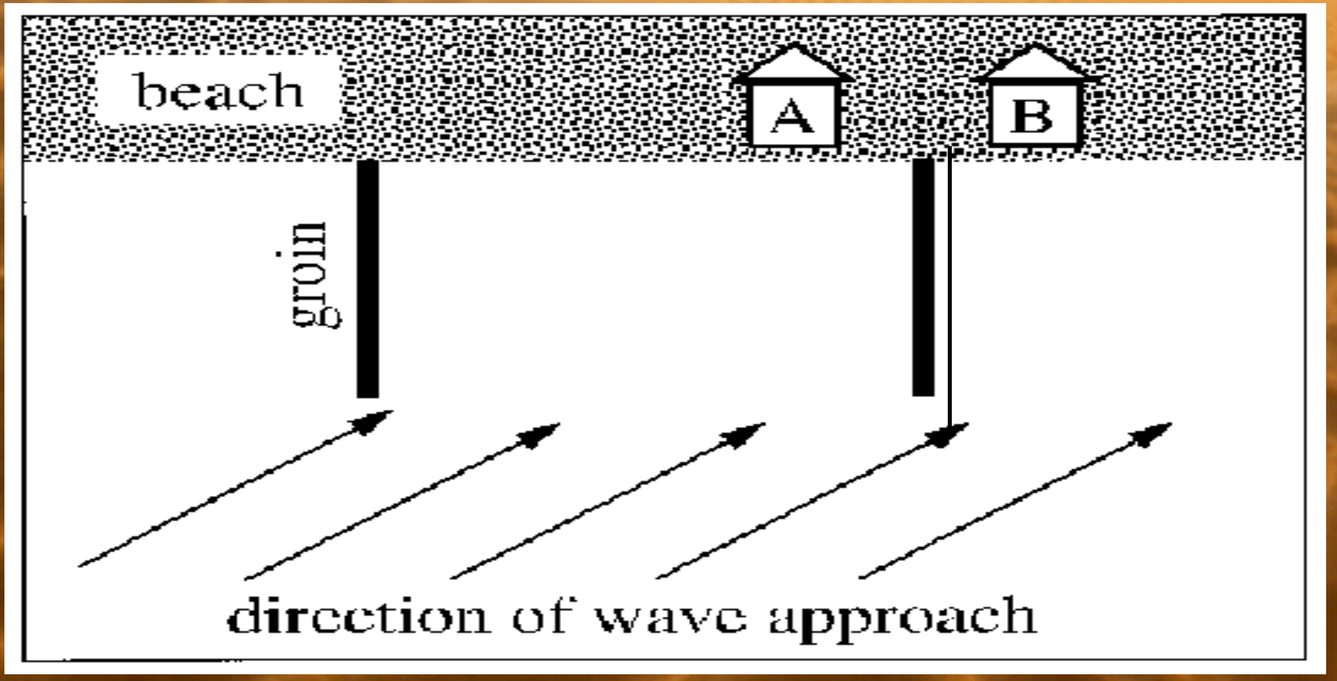
Landscapes

Longshore Current

The current of water that runs parallel to the shore, moving sediments.

Landscapes

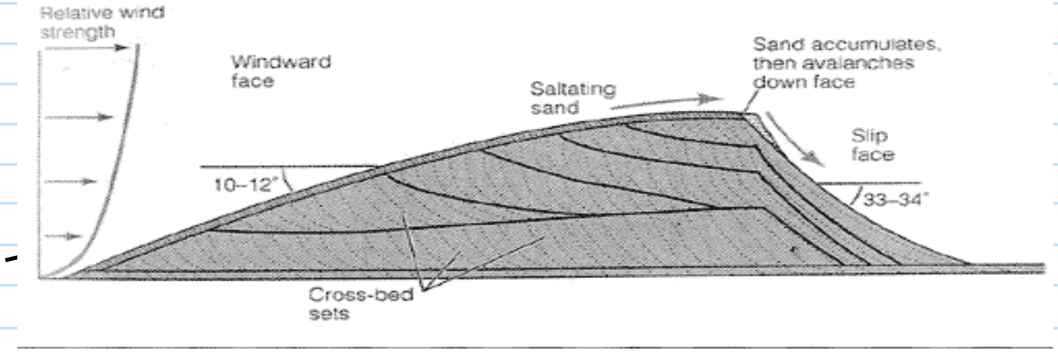
Beach Erosion & Deposition



Landscapes

Sand Dune

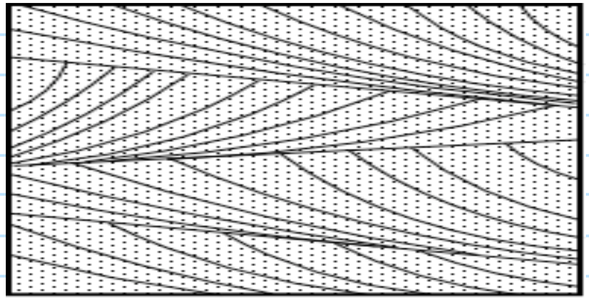
A mound or ridge of sand deposited by wind.
Windward and Leeward



Landscapes

Cross Bedding

Layers deposited indicating a shift in the direction that the wind or water was moving at the time of deposition.



Landscapes

A portion of the Earth's surface which shows features caused by a common origin.

1. Elevation
2. Bedrock Type
3. Stream Drainage Pattern

Landscapes

Mountain

Highest relief (change in elevation) and a deformed rock structure. Adirondack & Taconic Mts. in NYS (metamorphic rock)

Landscapes

Plateau

Large areas of horizontal deposits of rock (Usually sedimentary) at high elevation.
The Catskills are part of a plateau NOT a mountain.

Landscapes

Plains

Lowest relief or elevation
Horizontal Sedimentary Rock

Landscapes

Dissected Plateau

An area of the plateau that has been severely eroded with a high relief, giving the appearance of a mountain.

Example:The Catskills are part of the Allegheny (Appalachian) Plateau.

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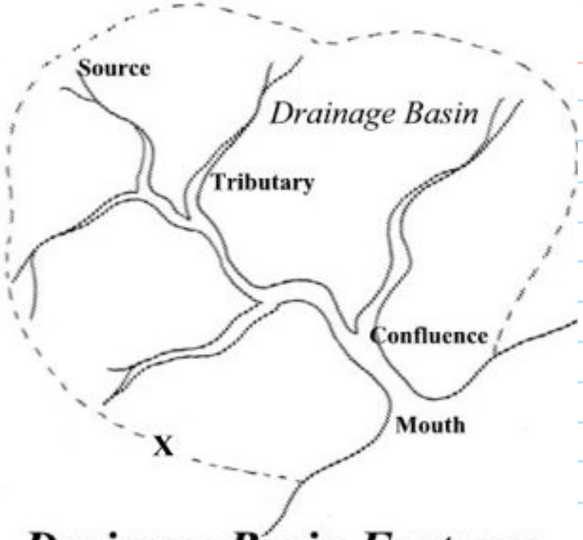
Stream Drainage Basin (Watershed)

An area drained by a system of stream and rivers.
Tributary Streams



Drainage Basin Features

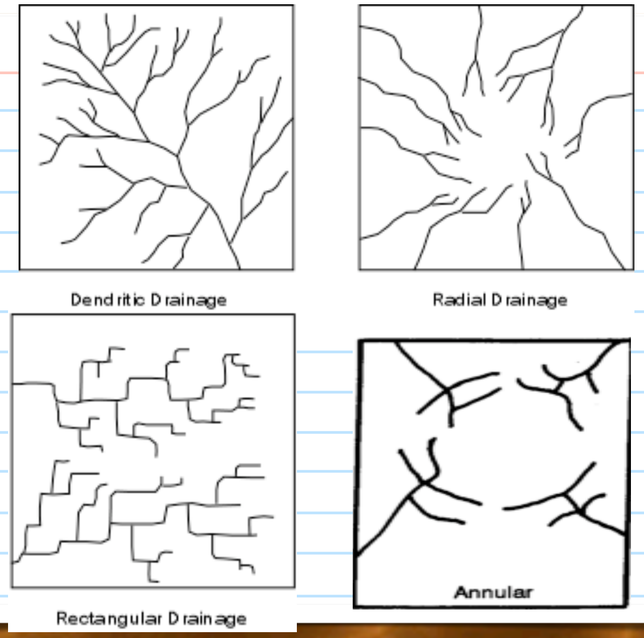
Landscapes

Stream Drainage Pattern

A pattern formed by streams and rivers in a drainage basin that is determined by the type and structure of the underlying rock.

Landscapes

Drainage Patterns



Landscapes

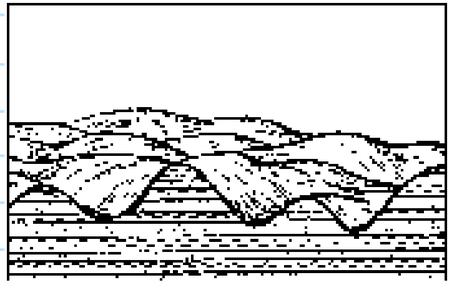
Drainage Patterns

Dendritic or Branching-Plains
Annular-Igneous Intrusions
Trellis or Rectangular-Plateaus
Radial-Mountains

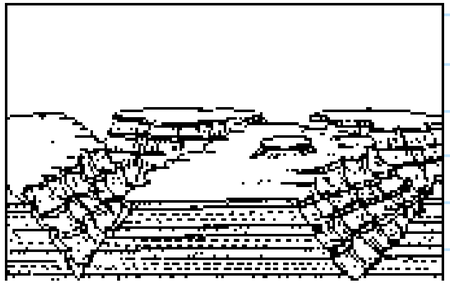
Landscapes

Arid (dry) vs. Humid

Landscape A



Landscape B



Humid
smooth
with gentle slopes

Arid
angular
with steep slopes

Soil Movement

Mass wasting – downslope movement of earth material. Also called: landslide; creep; mudflow; or slump.

Based on Velocity of Movement