



GLACIERS

How do glaciers help shape our Earth?



Glacier Watching Day 17

Largest Glacier Calving



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- Glacier - naturally formed mass of ice and snow that moves downhill under the force of gravity



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- Glacier Movement:
 - As snow and ice accumulate the glacier moves forward under its own mass and the pull of gravity
 - Sometimes called a “river of ice” glaciers act like fluids and flow in a plastic-like motion



Aletschgletscher Glacier Timelapse



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- Types of Glaciers:
 - Continental Glaciers - huge sheets of ice that cover entire land masses
 - Valley Glaciers - glaciers that form in high elevations in mountain valleys

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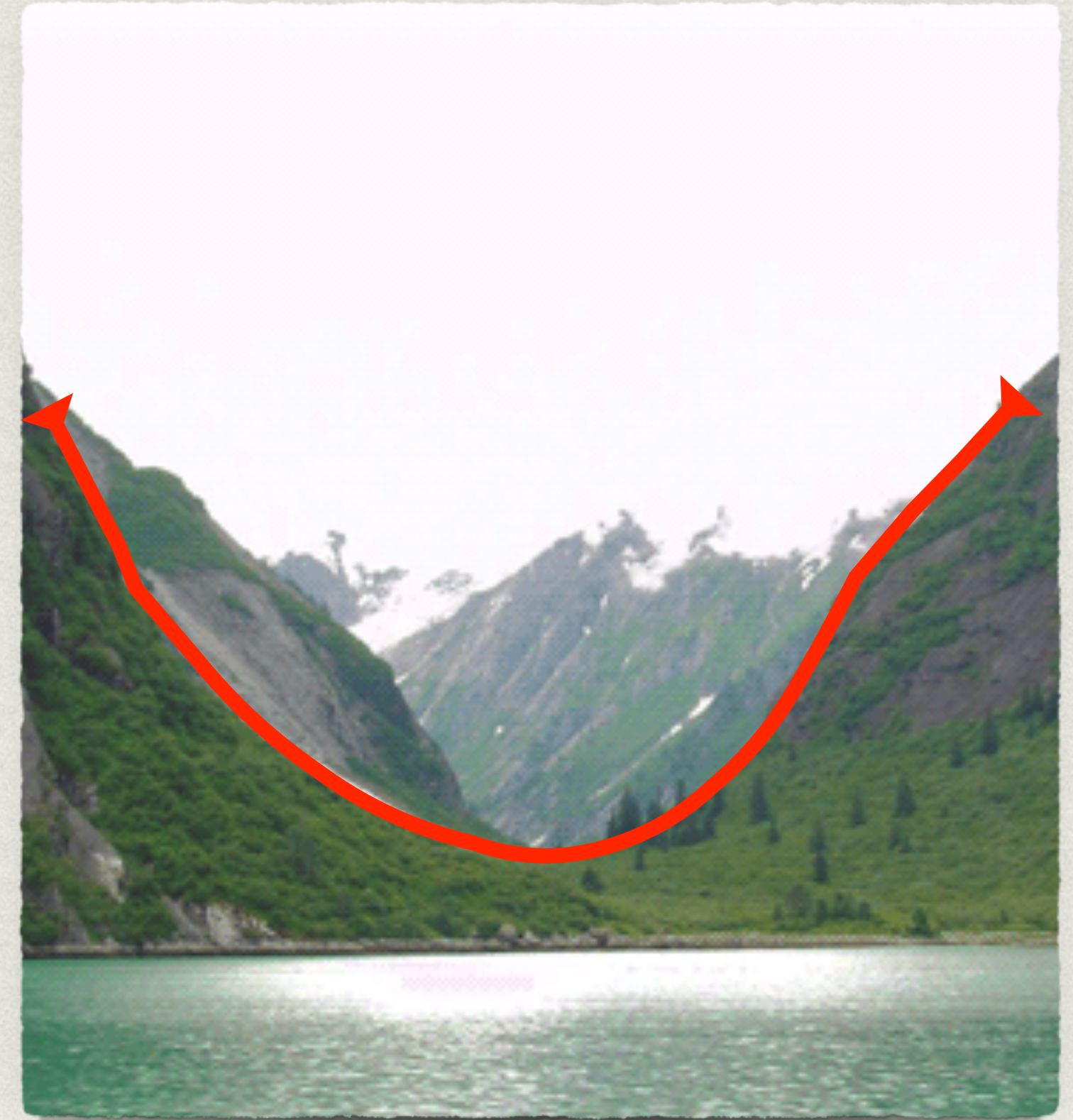
Continental Glacier



Valley Glacier

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- Glacial Features:
 - U-Shaped Valleys - shape of the valley walls from glacial erosion



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- Glacial Features [continued]:
 - Till - unsorted sediments deposited by a glacier



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- Glacial Features [continued]:
 - Erratics - large deposited fragments that can be transported hundreds of miles inside or on top of the glacier



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- Glacial Features [continued]:
 - Drumlins - streamlined oval shaped mounds of till



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- Glacial Features [continued]:
 - Eskers - a long winding ridge of till



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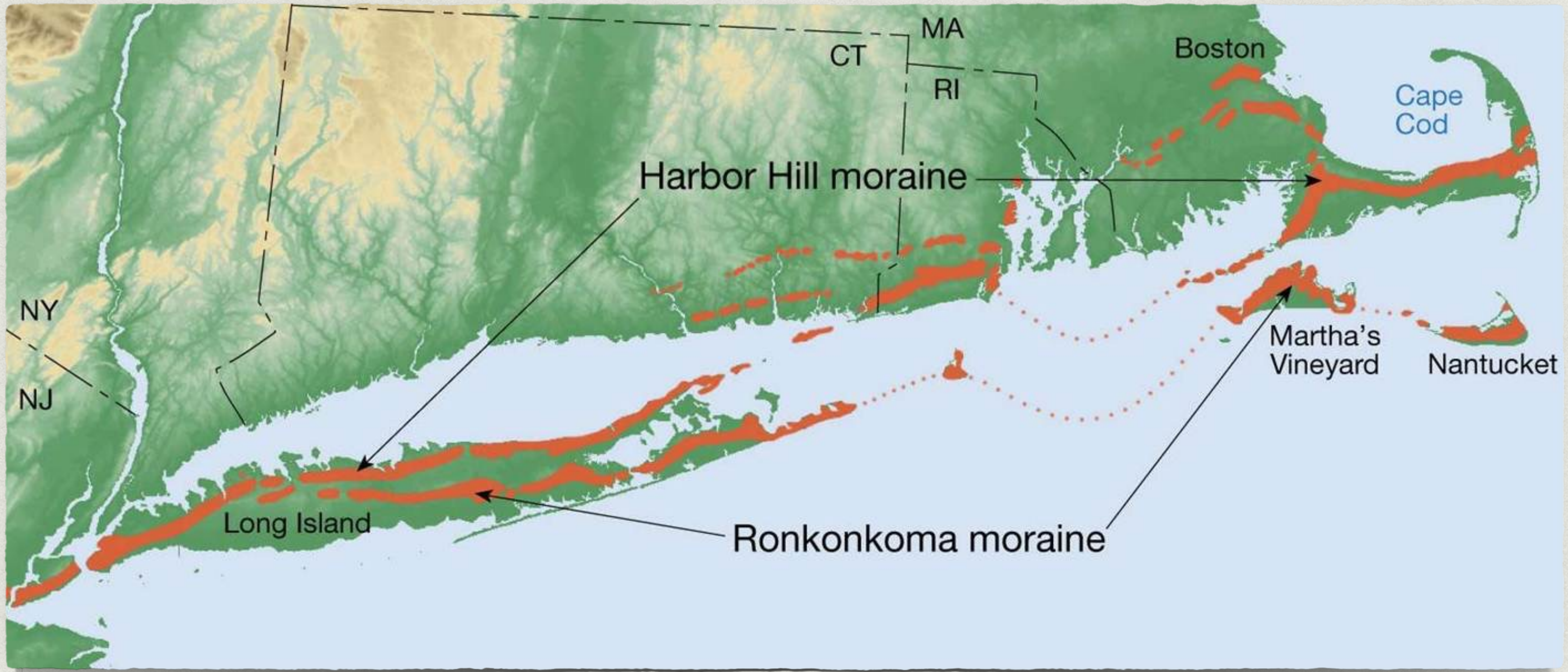
- Glacial Features [continued]:
 - Terminal Moraines - a mound of till deposited along the leading edge of a glacier



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Terminal Moraine



Terminal Moraines

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- Glacial Features [continued]:
 - Glacial Grooves - long parallel scratches formed by sediment embedded in a glacier that has passed over the surface and indicate the direction of travel



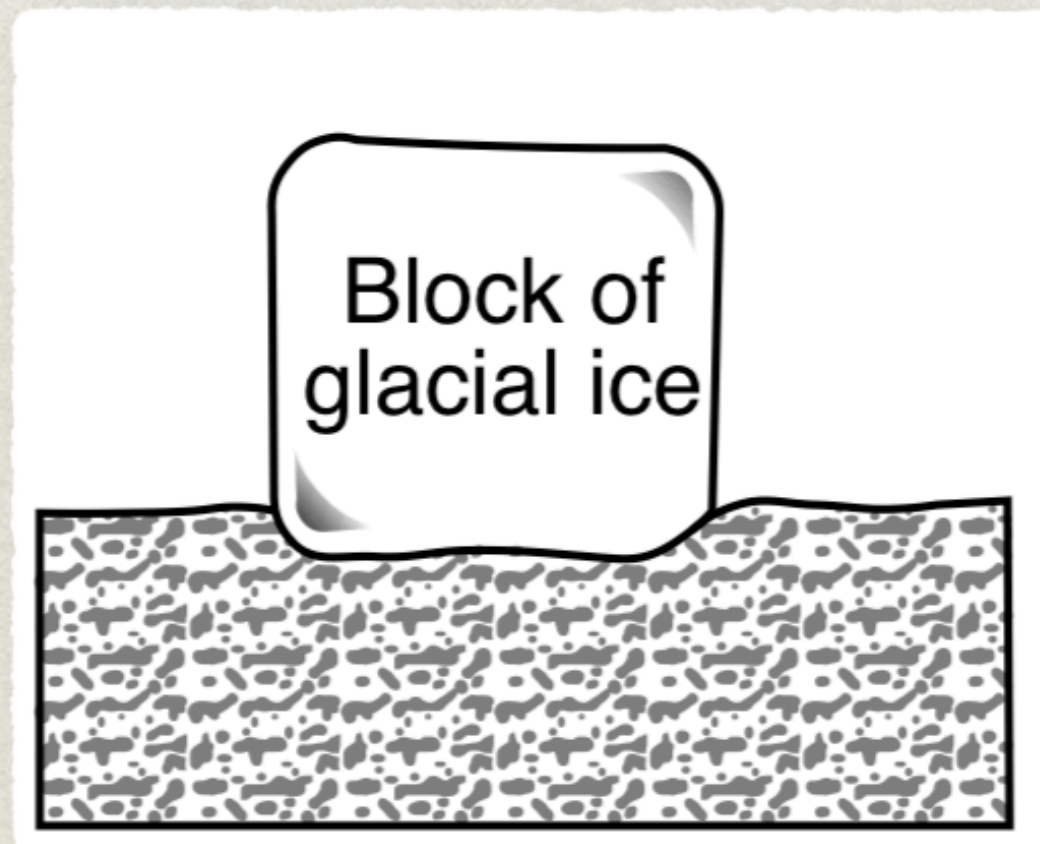
Glacial Grooves

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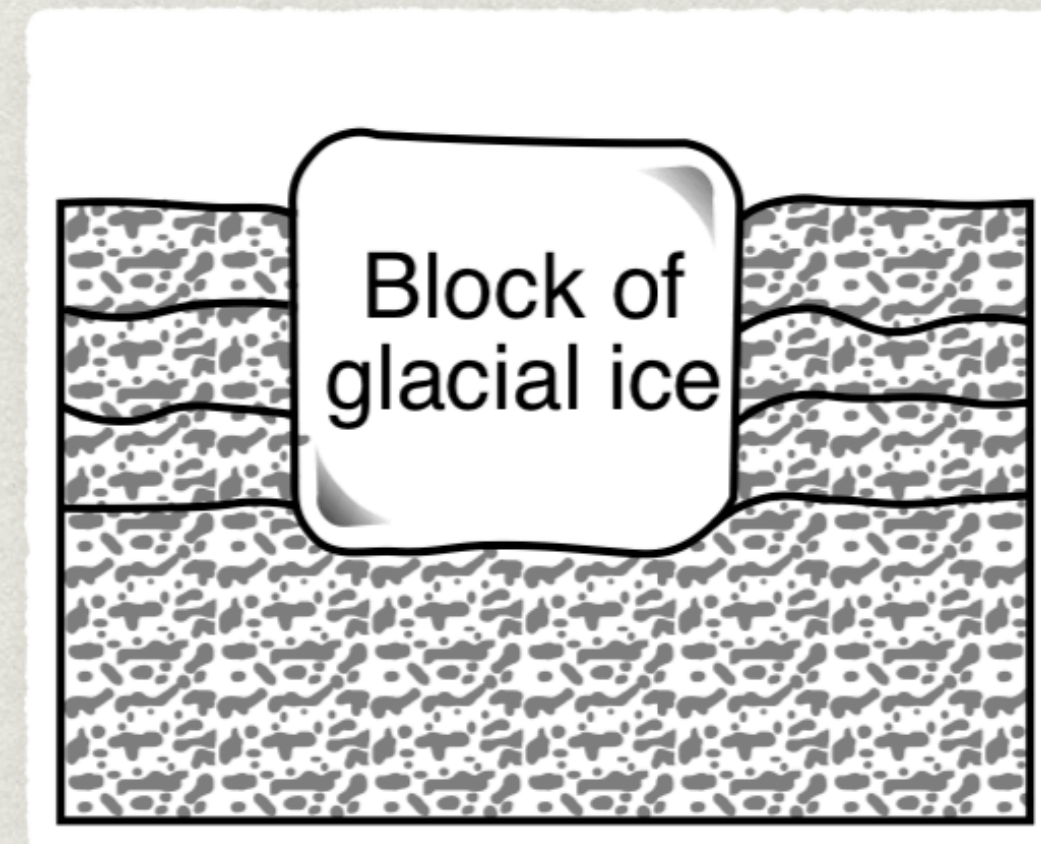
- Glacial Features [continued]:
 - Kettle Lake - depression left in the ground that is filled with glacial melt water
 - Example: Lake Ronkonkoma



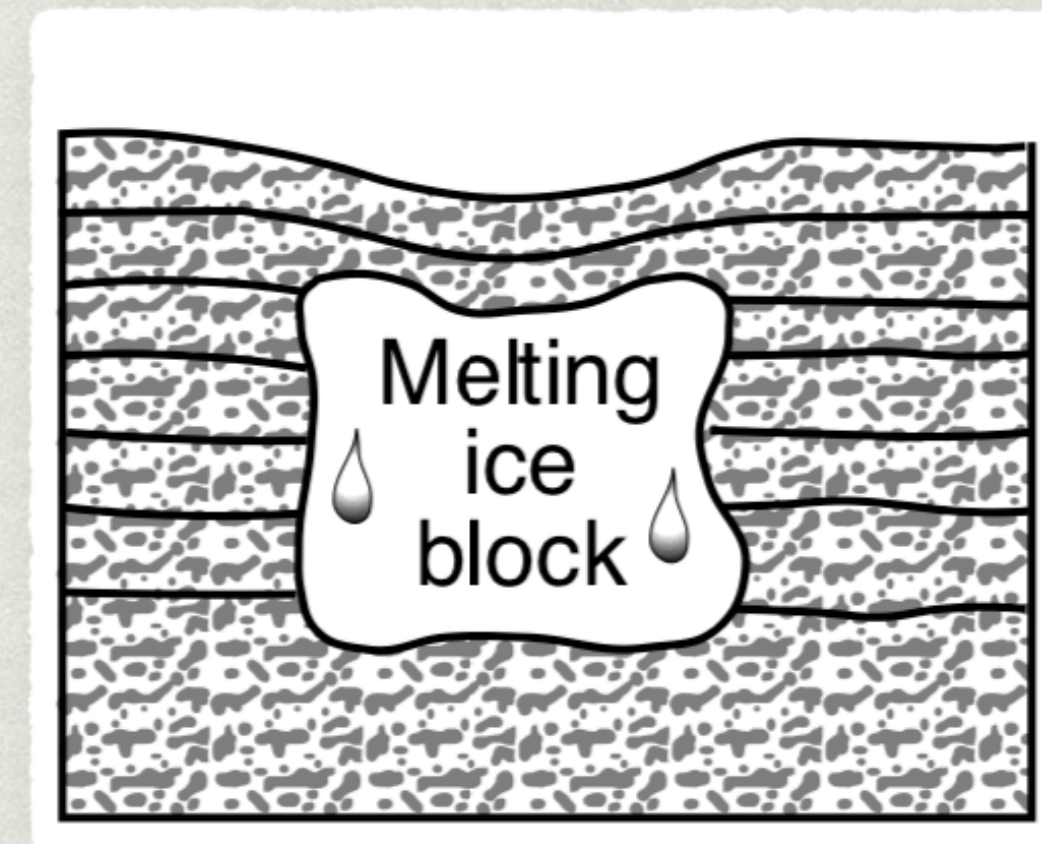
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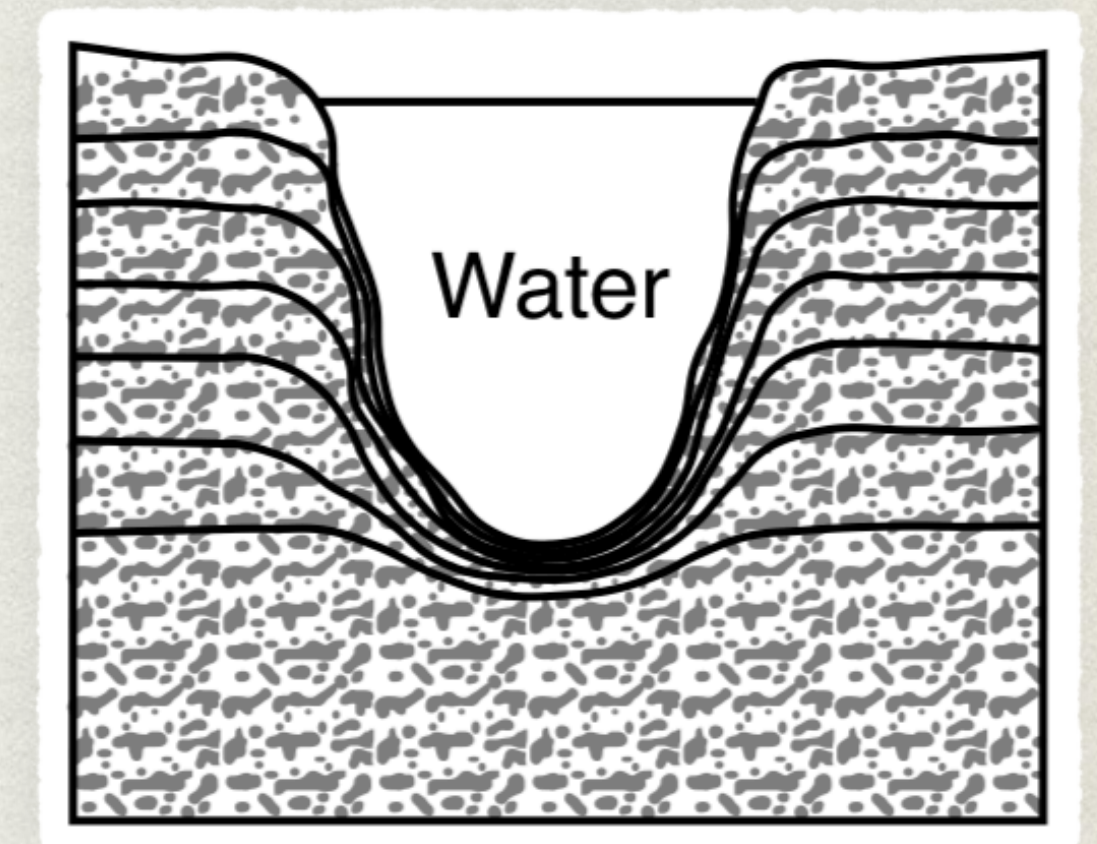
Step 1



Step 2



Step 3



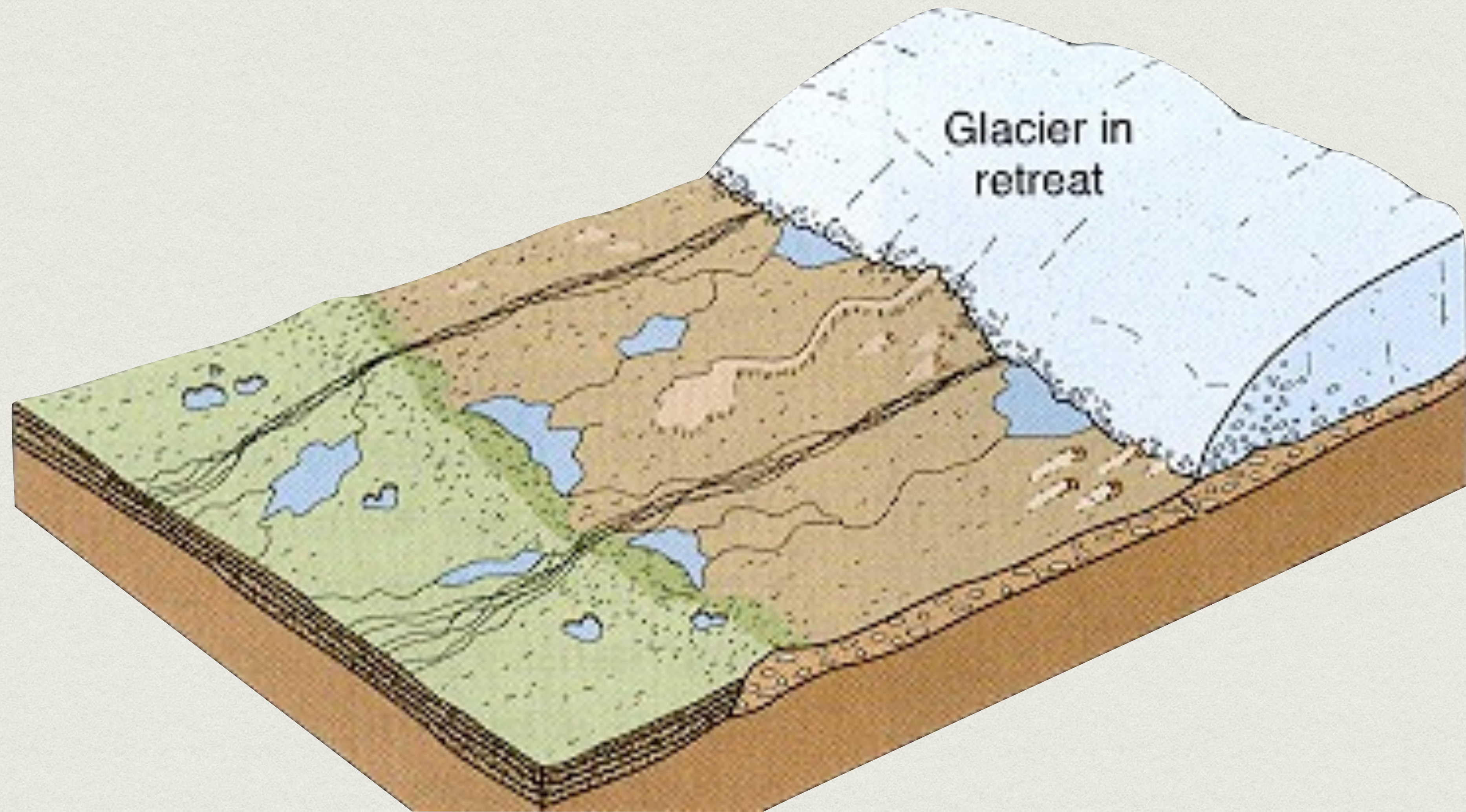
Step 4

Kettle Lake Formation

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- Glacial Features [continued]:
 - Outwash Plain - broad feature of smaller sediment carried from the melting water of a retreating glacier
 - Example: Southern Long Island

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