


Frozen Water

-makes up 76.7% of all freshwater
-most ice is in glaciers and icebergs



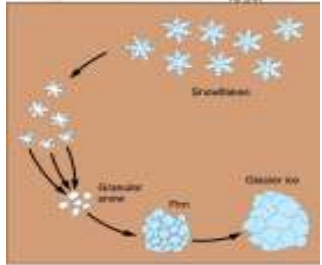
Glacier Movie →

Apr 16-3:02 PM

Glaciers

-A large mass of ice and snow that moves slowly over the land.


-Glaciers form by snow piling up on itself. The pressure causes the snow to turn into ice.



Apr 16-3:06 PM

2 Types of Glaciers:

Alpine Glaciers Continental Glaciers




→ →

Apr 22-9:55 AM

Glaciers Move by:

- Basal Slip
- Internal Plastic Flow

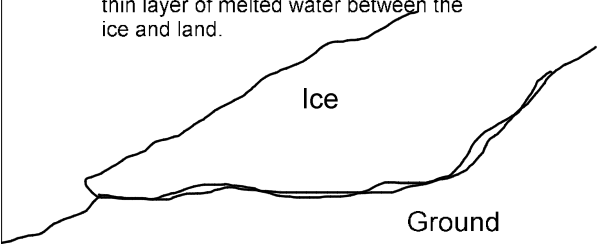


→

Apr 18-9:02 AM

Basal Slip

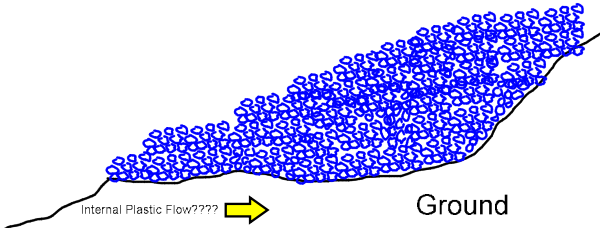
-the glacier moves by slipping over a thin layer of melted water between the ice and land.



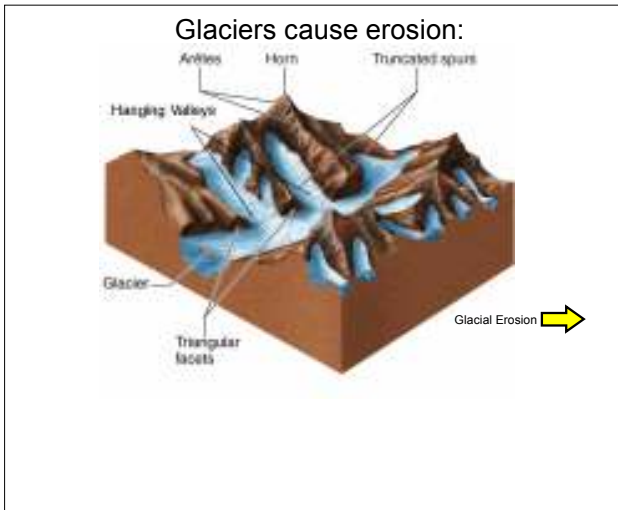
Apr 18-9:03 AM

Internal Plastic Flow

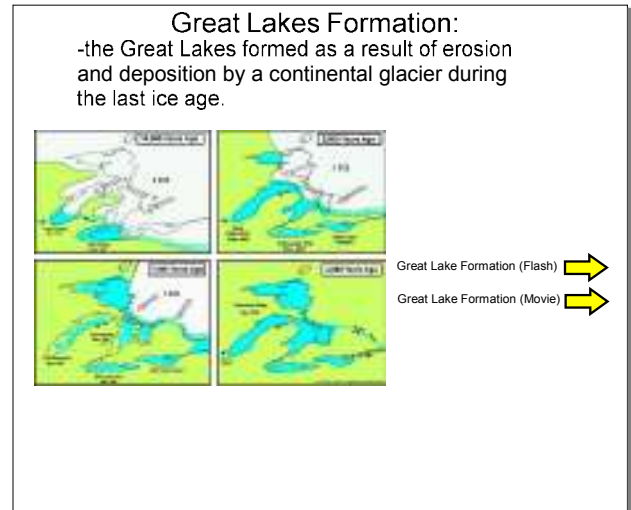
-glaciers move by ice grains deforming under pressure and sliding over each other.



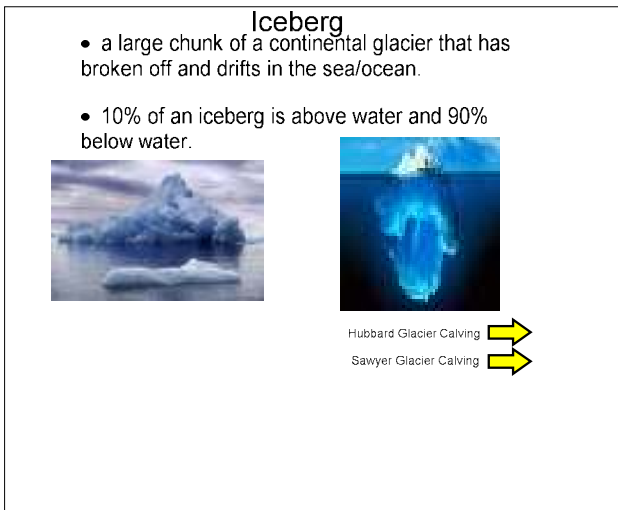
Apr 18-9:03 AM



Apr 16-3:24 PM



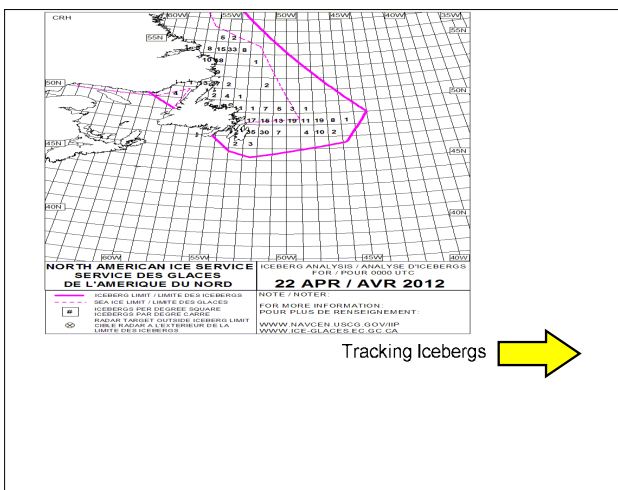
Apr 16-3:28 PM



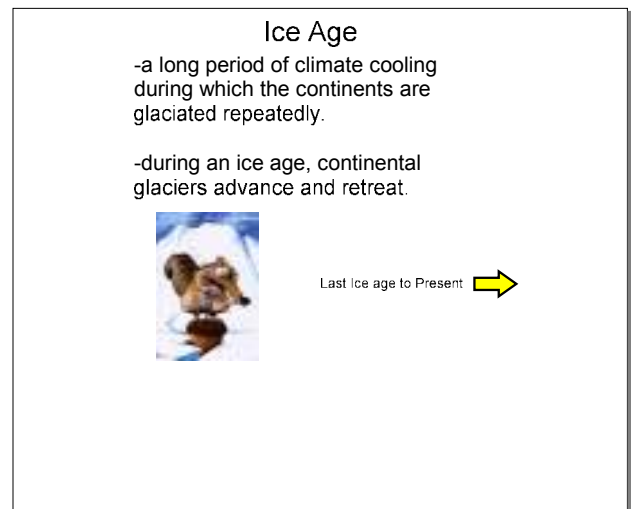
Apr 18-9:07 AM



Apr 23-8:57 AM



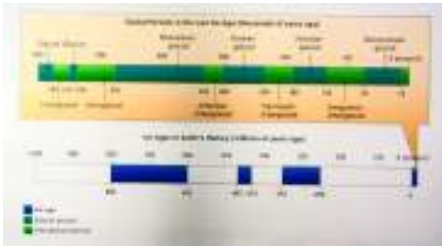
Apr 22-10:27 AM



Apr 18-9:05 AM

Glacial vs. Interglacial Periods

- glacial period: cooler climate, glaciers advance
- interglacial period: warmer climate, glaciers retreat



Apr 19-12:08 PM

North America during last glacial period

- During the last glacial period North America was mostly covered with ice (up to several miles thick).
- The coasts had more land as much of the water was ice on the land.

Asian/American Land Bridge →

Apr 19-12:10 PM

Milankovitch Theory:

- a theory that says that cyclical changes in both Earth's orbit and the tilt of the Earth occur and cause climatic change.



Apr 19-12:13 PM

Other Theories for glaciation:

- varying amounts of sun energy
- volcanic dust blocking sun energy

Apr 19-12:15 PM

The end!

Apr 18-9:21 AM

Alpine Glaciers

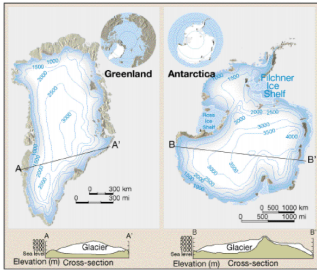
- Glaciers that form in mountains and look like thick rivers of ice sliding down into a valley.



Apr 16-3:09 PM

Continental Glaciers


-Glaciers that are ice sheets that cover a large area of land.



The image shows two maps of ice sheets: Greenland and Antarctica. The Greenland map includes a scale bar (0-500 km, 0-500 mi) and a cross-section A-A'. The Antarctica map includes a scale bar (0-500, 1000 km, 0-500, 1000 mi) and a cross-section B-B'. Below the maps are two cross-section diagrams labeled 'Glacier' and 'Elevation (m) Cross-section', showing the profile of an ice sheet. A yellow arrow points to the right.

Apr 16-3:09 PM

Are glaciers melting?

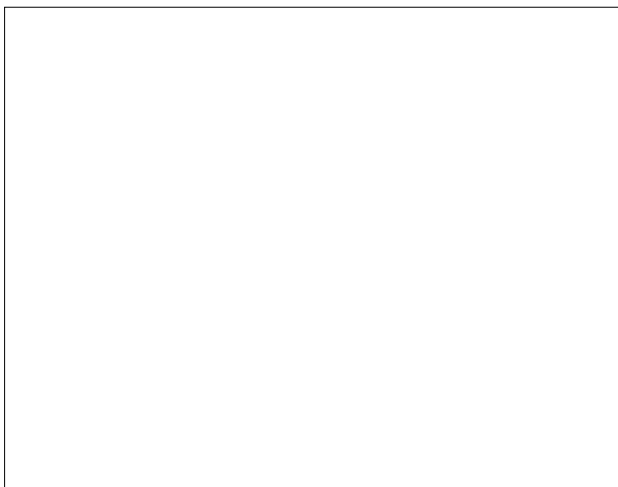


Time Lapse of Glacier →

If all the glaciers were to melt sea level would rise 80 meters.

- Sea level rise on Gulf Coast →
- Sea Level rise in New York City →
- Back →

Apr 16-3:13 PM



Apr 16-3:43 PM