

Glacial Dynamics

- 1. Ice sheets move away from their zones of accumulation and down slope under the pressure from their weight (called plastic flow).
- 2. Ice sheets also move down slope by slippage (called basal slip) as the weight of the ice melts its lowest levels and acts as a lubricant.
- 3. The forward edge of the ice sheet (ice front) acts as a “bulldozer,” scouring the land, plucking loose rocks out of the ground and slicing all vegetation in its way.
- 4. All this material is mixed with the ice and moved forward and down slope with the ice mass.
- 5. The furthest advance of the ice front is marked by the “terminal” moraine, a high ridge of glacial material.
- 6. The “retreat” of a glacier is the melting of the ice front in place creating the illusion that the glacier is moving backward.
- 7. As the ice melts in place, the material it picked up is exposed and dropped, creating numerous glacial features.
- 8. A “recreational” moraine is a low ridge of glacial material marking the ice front’s advancement after a period of retreat.