GLASS NOTES

• Glacier -

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

• Types of Glaciers:
  • Continental Glacier -
  • Valley Glacier -

• Glacial Features:
  • U-Shaped Valleys -
  • Till - unsorted sediments deposited by a glacier
  • Erratics -
  • Drumlins -
  • Eskers -
  • Terminal Moraines -
Packet: Glaciers

- Glacial Features [continued]:
  - Glacial Grooves - 
  - Kettle Lake - 
    - Example: Lake Ronkonkoma
  - Outwash Plain - 
    - Example: Southern Long Island
PART I QUESTIONS: MULTIPLE CHOICE

1. Which force is primarily responsible for the movement of the glacier?
   a. gravity
   b. running water
   c. ground water
   d. wind

2. For which movement of earth materials is gravity not the main force?
   a. snow tumbling in an avalanche
   b. moisture evaporating from an ocean
   c. boulders carried by a glacier
   d. sediments flowing in a river

3. Which characteristic of a transported rock would be most helpful in determining its agent of erosion?
   a. age
   b. physical appearance
   c. density
   d. composition

4. Which geologic evidence would best support the inference that a continental ice sheet once covered a given location?
   a. polished and smooth pebbles; meandering rivers; V-shaped valleys
   b. scratched and polished bedrock; unsorted gravel deposits; transported boulders
   c. sand and silt beaches; giant swamps; marine fossils found on mountaintops
   d. basaltic bedrock; folded, faulted, and tilted rock structures; lava flows

5. Which erosional agent typically deposits hills of unsorted sediments?
   a. ocean waves
   b. glaciers
   c. winds
   d. streams

6. A large, scratched boulder is found in a mixture of unsorted sediments forming a hill in central New York State. Which agent of erosion most likely transported and then deposited this boulder?
   a. ocean waves
   b. running water
   c. a glacier
   d. wind

7. The direction of movement of a glacier is best indicated by the
   a. elevation of erratics
   b. alignment of grooves in bedrock
   c. size of kettle lakes
   d. amount of deposited sediments
The cross sections below represent how a present-day glacial landscape feature was formed in Mendon Ponds Park and its appearance at present.

8. Which glacial landscape feature is indicated in the present-day cross section?
   a. esker
   b. finger lake
   c. kame
   d. kettle lake

9. A drumlin hill is most likely composed of
   a. cemented sediments
   b. unsorted sediments
   c. horizontally layered sediments
   d. vertically layered sediments

10. A low hill is composed of unsorted sediments was probably deposited by
    a. the wind
    b. wave action
    c. running water
    d. a glacier

11. An elongated hill that is composed of unsorted sediments deposited by a glacier is called
    a. a delta
    b. a drumlin
    c. a sand dune
    d. an outwash plain

12. Which feature will most likely form when the partially buried ice block melts?
    a. drumlin
    b. moraine
    c. kettle lake
    d. finger lake

13. A ridge of sediment in a terminal moraine can best be described as
    a. sorted and deposited by ice
    b. sorted and deposited by meltwater
    c. unsorted and deposited by ice
    d. unsorted and deposited by meltwater