Potential Topics

The topics listed below are designed to cover knowledge in the following fields: 1) Glaciology, 2) Glacial sediments and associated landforms, 3) Deglaciation patterns, 4) Glaciation and climate

"Ice age" discovery

- **Where and how?**

Late Cenozoic

- **Time divisions**
- **Anthropocene?**

Ancient and modern glaciers

- **Morphology, classification, thickness**
- **Extent of modern glaciers**
- **Extent of Quaternary glaciations**

Accumulation and ablation

- **Parts of a glacier**
- **Conversion of snow to glacier ice**
- **Heat sources for ice melt (surface and bottom)**

Glacier mass balance

- **Gains and losses of ice mass**
- **Indicators of glacier mass balance**

Temperature of glaciers

- **Characteristics**
- **Classification**

Glacier surface structures

- **Types and origins**

Meltwater drainage on, in & at glacier base

- **Avenues of drainage**
- **Discharge characteristics**

Flow of glacier ice

- **Properties of Ice**
- **Properties of glacier ice**
- **Deformation of glacier ice**
- **Flow of glaciers**

Glacial erosion

- **Mechanisms of erosion**
- **Factors controlling rate**
- **Landforms of glacier erosion**

Debris transport in glaciers

- **Avenues of transport**
- **Debris alteration during transport**

Sediments associated with ice, meltwater drainage, glacial lakes and wind

- **Non-sorted sediments**
- **Sorted sediments**

Depositional landforms

- **Non-sorted sediments**
- **Sorted sediments**

Laurentide Ice Sheet

- **Geometry**
- **Flow pattern**
- **Southern margin advance and retreat**

Sea level and glaciations

- **Relationship**
- **Value of record**

Michigan's glacial record

- **Glacial landforms**
- **Record of ice retreat**
- **Rebound isobars**

Climate record in marine sediments and ice cores

- **Form of climate signal**
- **Drivers for signal**
- **Pattern of signal**
- **Significance of signal**

Factors controlling climate change

- **Terrestrial**
- **Atmospheric**
- **Extraterrestrial**