

GEY 119

The Great Ice Age

Spring, 2010

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Syllabus and policies

Friday, 2/26, 6-10 PM

6-8 Introduction

Definitions of Ice Ages

Pleistocene Epoch

Conditions and Effects

Possible causes

Earlier Ice Ages on Earth

Video "Riddles of Sand and Ice"

8-10 Glaciology

Physics of glaciers

Erosion, transportation, and deposition by glaciers

Landforms created by glaciers

Map studies of glacial landforms

Videos "Evidence for the Ice Age"

"Glacier on the Move"

"The Geological Work of Ice"

Saturday, 2/27 8-5

Life during the Ice Ages

Early man and the peopling of the Americas

Videos "The First Americans"

"The Last Mammoth"

Lunch 12-1

Field trip, weather permitting, to Idaho Springs for discussion and viewing of evidence for the Ice Ages in Colorado.

Bad weather alternative: Field trip to Denver Museum of Nature and Science (\$10 fee)

Grade based on

1. Completion of map studies worksheet
2. Completion of 3 of 5 of the essays:

Essays (describe and discuss)

1. Formation and physics of glaciers
2. Erosion, transportation and deposition by glaciers and the landforms resulting from these processes.
3. List and describe these theories of climatic change:

Sun-related

- a. Solar output
- b. Volcanic dust
- c. Cosmic rays
- d. Earth orbital variation (Milankovitch)

Geographic

- d. Oceanic circulation
- e. Mountain Ranges
- f. Continental drift

4. Describe the flora and fauna of North America and Europe during the last 2 million years
5. Discuss the evolution and migration of early mankind during the Pleistocene epoch.