# Pre-1500

## A Geologic Sense of Time

Written by Michael Young, former History Department Chair, Omaha Burke High School. Edited by Lonnie Moore (teacher at Omaha South High Magnet School) and Karen Graff (former elementary teacher).

### Discussion

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### Resources

- Nebraska Department of Education Content Area Standards

[nebraskastudies.org](http://nebraskastudies.org)
Have students read the page A Sense of Geologic Time in the Pre-1500 timeline of Nebraska Studies, and particularly read the selection at the bottom of the page called Glossary: Those Who Study the Past.

http://nebraskastudies.org/pre-1500/a-sense-of-geologic-time/

Then ask students:
- Which two of the scientific occupations are the most alike? Why?
- Which of the two of the scientific occupations are the most different? Why?
- Which of the scientific occupations are the most interesting? Why?
- Why might each one of these scientists be interested in the same digging site?
- Why should history be considered a science?
- In what ways is history not a science?

Nebraska Department of Education Content Area Standards

Social Studies Standards: SS 8.3.2; SS 8.4.1; SS 8.4.3; SS 8.4.4 | SS 12.3.2; SS 12.4.1; SS 12.4.3; SS 12.4.4

Language Arts Standards: LA 8.1.6 Comprehension; LA 8.4.1 Information Fluency | LA 12.1.6 Comprehension; LA 12.2.2 Writing Modes; LA 12.4.1 Information Fluency

Science: SC 8.1.1 | SC 12.3.1; SC 12.3.3
Photograph Analysis

Have students read the following webpages on the Pre-1500 timeline of Nebraska Studies:

http://nebraskastudies.org/pre-1500/a-sense-of-geologic-time/

http://nebraskastudies.org/pre-1500/ashfall/

Then, have them use the Photograph Analysis Worksheet (Page 8 in Resources) to analyze one or more of the pictures of bones, prehistoric animals, and scientists found on these pages.

Nebraska Department of Education Content Area Standards

Social Studies Standards: SS 8.3.3; SS 8.4.5 | SS 12.3.3; SS 12.4.5

Language Arts Standards: LA 8.1.6 Comprehension; LA 8.2.1 Writing Process; LA 8.4.1 Information Fluency | LA 12.1.6 Comprehension; LA 12.2.2 Writing Modes; LA 12.3.1 Speaking; LA 12.4.1 Information Fluency

Science: SC 8.1.1 | SC 12.1.1; SC 12.1.2; SC 12.3.3
Have students read the following webpages in the Pre-1500 timeline of Nebraska Studies:

http://nebraskastudies.org/pre-1500/a-sense-of-geologic-time/

http://nebraskastudies.org/pre-1500/ashfall/

http://nebraskastudies.org/pre-1500/the-ice-age/

Have students review the images and video. Then, lead a discussion or have students write on the following questions:

• If scientists could bring one of the animals back to life, which would you most like to see? Use this animal for the rest of these questions.
• How has the geography and climate changed since your animal was last alive in Nebraska?
• Why did these prehistoric Nebraska-area animals disappear?
• Would your animal have to be placed in a zoo? If so, what special accommodations would the zookeepers have to take to keep the animal healthy and to keep visitors and other animals safe?

Nebraska Department of Education Content Area Standards

Social Studies Standards: SS 8.3.3; SS 8.4.5 | SS 12.3.3; SS 12.4.5

Language Arts Standards: LA 8.1.6 Comprehension; LA 8.2.1 Writing Process; LA 8.4.1 Information Fluency | LA 12.1.6 Comprehension; LA 12.2.2 Writing Modes; LA 12.3.1 Speaking; LA 12.4.1 Information Fluency

Science: SC 8.1.1 | SC 12.1.1; SC 12.1.2; SC 12.3.3
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resources

Time Terms Worksheet  6
Time Terms Definitions  7
Photograph Analysis Worksheet  8

Nebraska Department of Education Academic Standards
https://www.education.ne.gov/contentareastandards/

Nebraska Department of Education Social Studies and History Standards
https://tinyurl.com/ycuox8sh

National Archives http://www.archives.gov/index.html


Six Trait Writing: Ideas, Organization, Voice, Sentence Fluency, Word Choice, and Conventions
https://www.edinaschools.org/Page/2343
### Time Terms

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Time Terms Definitions
(from Merriam-Webster)

anthropology  the science of human beings ; especially : the study of human beings and their ancestors through time and space and in relation to physical character, environmental and social relations, and culture

archeology  the scientific study of material remains (fossil relics, artifacts, monuments, etc.) of past human life and activities

geology  a science that deals with the history of the earth and its life, especially as recorded in rocks

crystallography  a science dealing with the life of past geological periods as known from fossil remains

artifact  something created by humans usually for a practical purpose

fossil  preserved from a past geologic age

glacier  a large body of ice moving slowly down a slope or valley or spreading outward on a land surface

Ice Age  a time of widespread glaciation

mammotb  any of a genus (Mammutthus) of extinct Pleistocene mammals of the elephant family distinguished from recent elephants by highly ridged molars, usually large size, very long tusks that curve upward, and well-developed body hair

migration  to pass usually periodically from one region or climate to another for feeding or breeding

Paleo-Indian  one of the early American hunting people of Asian origin extant in the late Pleistocene

prehistory  times before written history
Analyze a Photograph

Meet the photo.
Quickly scan the photo. What do you notice first?

Type of photo (check all that apply):
- Portrait
- Landscape
- Aerial/Satellite
- Action
- Architectural
- Event
- Family
- Panoramic
- Posed
- Candid
- Documentary
- Selfie
- Other

Is there a caption?  yes  no

Observe its parts.
List the people, objects and activities you see.

PEOPLE

OBJECTS

ACTIVITIES

Write one sentence summarizing this photo.

Try to make sense of it.
Answer as best you can. The caption, if available, may help.
Who took this photo?

Where is it from?

When is it from?

What was happening at the time in history this photo was taken?

Why was it taken? List evidence from the photo or your knowledge about the photographer that led you to your conclusion.

Use it as historical evidence.
What did you find out from this photo that you might not learn anywhere else?

What other documents, photos, or historical evidence are you going to use to help you understand this event or topic?
Nebraska Department of Education
Content Area Standards

Social Studies Standards

8
SS 8.3.2 Students will examine how regions form and change over time.
SS 8.3.3 Students will investigate how natural processes interact to create and change the natural environment.
SS 8.4.1 (US) Students will analyze how major past and current US events are chronologically connected, and evaluate their impact(s) upon one another.
SS 8.4.3 (US) Students will analyze and interpret historical and current events from multiple perspectives.
SS 8.4.4 (US) Students will identify causes of past and current events, issues, and problems.
SS 8.4.5 Students will develop historical research skills.

12
SS 12.3.2 Students will examine how regions form and change over time.
SS 12.3.3 Students will interpret how natural processes interact to create the natural environment.
SS 12.4.1 (WLD) Students will analyze how major past and current world events are chronologically connected, and evaluate their impact(s) upon one another.
SS 12.4.3 (US) Students will analyze and evaluate historical and current events from multiple perspectives, and evaluate their impact(s) upon one another.
SS 12.4.4 (WLD) Students will identify and evaluate the effects of past, current, and potential future events, issues, and problems.
SS 12.4.5 (US) Students will develop historical research skills.
# Language Arts Standards

| 8  | LA 8.1.6 Comprehension: Students will construct meaning by applying prior knowledge, using text information, and monitoring comprehension while reading increasingly complex grade-level literary and informational text.  
|    | LA 8.2.1 Writing Process: Students will apply the writing process to plan, draft, revise, edit, and publish writing using correct spelling, grammar, punctuation, and other conventions of standard English appropriate for grade-level.  
|    | LA 8.4.1 Information Fluency: Students will evaluate, create, and communicate information in a variety of media and formats (textual, visual, and digital). |
| 12 | LA 12.1.6 Comprehension: Students will construct meaning by applying prior knowledge, using text information, and monitoring comprehension while reading increasingly complex grade-level literary and informational text.  
|    | LA 12.2.2 Writing Modes: Students will write in multiple modes for a variety of purposes and audiences across disciplines.  
|    | LA 12.3.1 Speaking: Students will develop, apply, and refine speaking skills and strategies to communicate key ideas in a variety of situations.  
|    | LA 12.4.1 Information Fluency: Students will evaluate, create, and communicate information in a variety of media and formats (textual, visual, and digital). |
Nebraska Department of Education
Content Area Standards

Science Standards

8
SC 8.1.1 Students will design and conduct investigations that will lead to descriptions of relationships between evidence and explanations.

12
SC 12.1.1 Students will design and conduct investigations that lead to the use of logic and evidence in the formulation of scientific explanations and models.
SC 12.1.2 Students will apply the nature of scientific knowledge to their own investigations and in the evaluation of scientific explanations.
SC 12.3.1 Students will investigate and describe the chemical basis of the growth, development, and maintenance of cells.
SC 12.3.3 Students will describe, on a molecular level, the cycling of matter and the flow of energy between organisms and their environment.


8

MA 8.4.1 Representations: Students will create displays that represent data.