

Grade Level **K-12**

Class Periods **2**

Goals/Objectives/Student Outcomes:

Students will:

- **Understand the relationship between natural history and human history.**
- **Learn about the geological and topographical factors that influenced the history of any community.**
- **Understand the impact of topographical features on the settlement patterns in the United States.**
- **Understand the direct connection between natural resources and the products of everyday life.**
- **Learn about the technology involved in altering the landscape and the long-range effects of technological activity.**

Materials:

1. Maps of Iowa and your county from various periods.
2. Photographs and illustrations of natural features, flora, and fauna of your area.
3. Newspapers and magazines, old and new.
4. Geography textbooks, old and new.
5. Reports from the county conservation board.
6. Issues of the Iowa Conservationist, old and new.
7. Reports and studies from the Department of Natural Resources.
8. Advertisements for recreational and commercial uses of natural features.
9. Time to walk or drive throughout your community and surrounding area to observe the natural features and wildlife.
10. Lists of extinct and endangered species of plant and animal life.
11. Reports from the Iowa Bureau of Geological Survey.

Background:

There is difference of opinion about the origins and timing of the creation of the geological foundations of Iowa. No one disputes the

variety of the landscape, however, and the different landform regions that can be identified in the state.

Much has changed on the Iowa landscape since the advent of human beings, especially in the last 150 years when technological changes have accelerated. Accompanying changes in Iowa's natural landscape have come changes in its wildlife. Some species of plant and animal life have become endangered and even extinct, while some introduced species have thrived.

Human activity—such as timbering, coal mining, hunting, fishing, plowing, contour and terrace farming, use of herbicides and pesticides, construction of bridges, dams, levees, and dikes, stream channeling, and the artificial impoundment of water—has changed both the landscape and the plant and animal life on it.

Construction of houses, roads and streets, industrial complexes, and commercial buildings also has significantly changed the face of the state during the last century and a half. All these changes also have meant changes in the lives of the people who live in the state.

Economic changes result when a natural resource is eliminated or reduced. The history of the changes on and to the land, and the resulting changes in the lives of the people, are integral parts of the history of Iowa.

Procedure:

This thematic lesson plan is intended to introduce this particular topic to students. The activities are intended to introduce students to the process of inquiry that can be applied to the study Iowa history. In many cases the same activities can be used to explore the topic in a variety of Iowa history time periods.

This lesson plan can also be used in conjunction with other topical areas in this curriculum. These thematic lesson plans underscore basic skills such as reading, writing, communicating orally, and collecting reference sources. Many of the activities will give students practice in using higher skills as in reading, writing, communicating orally, collecting reference sources and using a library; distinguishing between primary and secondary sources; using charts and timelines; and developing vocabulary. The teacher can introduce higher level skills through these activities such as collecting information from a variety of sources through observation and questioning; compiling, organizing, and evaluating information; comparing and contrasting; drawing conclusions or inferences from evidence; considering alternative conclusions; making generalizations; recognizing points of view; understanding how things happen and how things change;

recognizing how values and traditions influence history and the present; grasping the complexities of cause and effect; developing a chronological sense; and understanding events in context.

Activities:

1. Walk or drive around your community to observe and note the natural features of the landscape.
2. List the natural landscape features that have been changed by human activity in your community.
3. Walk or drive in the countryside surrounding your community to observe and note the natural features of the landscape.
4. List the natural landscape features that have been changed by human activity in the surrounding countryside.
5. On a map of Iowa draw the geological landform regions.
6. Write a report on the geological origins of Iowa landforms.
7. Draw a picture or make a model of the geological layers of the earth in the area where you live.
8. Visit with your local conservation board and interview members about their priorities for preserving the natural landscape.
9. Write a report on human activities today that seem to change the natural features of the landscape most rapidly.
10. Write a report on the human activities that seem to have changed the natural features of the landscape most rapidly a hundred years ago.
11. Make a model of the impact of glaciers in creating the landscape in your area.
12. Walk or drive around your community and the surrounding countryside and keep a list of all of the birds, animals, reptiles, and insects you observe.
13. From the previous list, research each entry and note whether or not the species is native to the area or has moved from somewhere else.
14. Go to a natural area at daybreak and write a description of the sounds that you hear.
15. Go to a natural area just after dark and write a description of the sounds that you hear.
16. Walk or drive around your community and the surrounding countryside and keep a list of all plants observed.
17. From the previous list, research each entry and note whether the species is native to the area or moved in from somewhere else.
18. Visit a construction site and photograph the changes in the natural landscape that are caused by the construction.
19. Visit a natural stream in your community and take a sample of water from it. Set the sample in the classroom for 24 hours and note the sediment that has deposited.
20. Visit a natural stream in your community and note the color and smell of the water and the speed of the flow.
21. On a map of Iowa from 1850, note the courses of the rivers. Compare this with the courses of the same rivers on a recent road map of Iowa.

22. Find a native prairie grass or flower in your area. Study the biology of the native prairie grasses and flowers.

23. Find an example of a wetland area in your community. Study the role of the wetlands as a natural resource.

Assessment of Outcomes:

1. Write an essay about native and introduced plants, birds, animals, reptiles, and insects in your area. Why have the plants changed over time?
2. Write an essay about the appearance of the original landscape in your area, and how and why this has changed over time.
3. Make a bas-relief model of the topography of your county.
4. Draw a map showing the rivers and natural water features of your state.
5. Draw a map showing the highways and railroads of your county and note whether or not they follow features of the natural landscape.

Extensions and Adaptations:

Most of the activities listed under procedures can be easily adapted to meet the learning needs of most students at various ages. Many of the listed activities can be used as art, music, writing, math, or science projects. Be sure to draw on teachers within your school and resource people in your community. The folklife section of this curriculum provides a list of community resource ideas.

Resources:

Contact the Iowa History Resource Center at the State Historical Society of Iowa for a list of books, videos, organizations and ideas for studying Iowa history. Write to: Education Coordinator, State Historical Society of Iowa, 600 East Locust, Des Moines, Iowa 50319.