



Innovation and Invention

Grades 9-12

The students will:

- Assess the impact of invention and innovation on the life of prehistoric Indians from the Mitchell Indian Village
- Investigate the overall impact of innovation and invention on the Upper Plains since 1000A.D. until the present
- Assess the impact of change on the Northern Plains

Background:

We take the car, the airplane, even space travel for granted in our generation. What would it have been like to travel many thousands of miles over many thousands of years, on foot? Today we rent a U-Haul or call a moving company to relocate. We expect to find a grocery store at least within driving distance when we move to any community. Consider the following:

Many early Native Americans, or Indians as some people call them, would move with the buffalo so that they would always have enough to eat. As the Indians learned to plant crops, or farm, they preferred to settle down in one area where they could build homes, store up food, and live in communities. Living in one area was easier because prehistoric Indians had to travel on foot. They did not have horses. They accumulated little in the way of personal property because they had to carry it on their backs or drag it whenever they relocated.

The life of the Indian changed dramatically after the Europeans arrived with the horse. Although the Indians of the Prehistoric Indian Village was not affected by the horse, various innovations, such as the aforementioned cultivation of agricultural products, did have an impact on their lives.

Learning Activities:

Lesson #1

- Assess the impact of invention and innovation on the life of prehistoric Indians from the Mitchell Indian Village
 - Discuss aspects of change that are not technologically based in the modern sense
 - Read the Narrative about life in the Mitchell Prehistoric Indian Village site
 - Have students decide what would have been 'invention and innovation' to that culture and identify example
 - Present (written or oral) a scenario that indicates the impact of those changes to early Native Americans

Lesson #2

- Investigate the overall impact of innovation and invention on the Upper Plains since 1000A.D. until the present
 - Using Invention and Innovation timelines to chart such changes in the past 1000 years
 - Read excerpts from Land of the Spotted Eagle by Luther Standing Bear to determine how Plains Indians have lived through the generations

Lesson #3

- Assess the impact of change on the Northern Plains
 - Indicate how the 'advancements' from the rest of civilization have impacted the traditional lives of the Plains Indian societies.
 - Present findings in a chosen form – provide students with a choice of format

Resources:

[The History of Invention](#) – a CBC TV Website

MTI - [Invention Dimension Homepage](#)

[Invention Dimension](#)– Inventor of the week archives

[Leonardo's Machines](#)

Smithsonian Institution Site – [Inventors and Inventions](#)

Note to Teachers:**Teaching time:**

Lesson One: 1 – 45 minute session

Lesson Two: 1 – 45 minute session w/outside reading ahead of session

Lesson Three: 2 – 45 minute sessions

Web resources are provided with each lesson. The list is by no means all-inclusive. Integrate sources from your classroom or school media center.

LESSON EXTENSIONS:

- If your school is located in proximity to the Mitchell Prehistoric Indian Village in Mitchell, South Dakota, it would be appropriate to schedule a class visit to the site to give the students a flavor of the life on the Plains as the Native Americans experienced it.
- Have the students create computer presentations to summarize their findings
- Have a Native American from a regional tribe speak to your class

General Resource Links:**More lesson ideas and reference materials:**

Marco Polo

<http://www.marcopolo-education.org/>

PBS Teacher Resource Page

<http://www.pbs.org/teachersource/>

Classroom Connect

<http://www.classroom.com/login/home.jhtml>

National Geographic

<http://www.nationalgeographic.com/education/>

Smithsonian Institution

<http://www.si.edu/>

Kathy Schrock Guide to Educators

<http://school.discovery.com/schrockguide/>

Science Links – Inventors and Inventions

<http://www.sciencenetlinks.com/lessons.cfm?Grade=6-8&BenchmarkID=1&DocID=0>

Links to make your own worksheets, puzzles, flash cards, crosswords and more....

Discover School PuzzleMaker

<http://puzzlemaker.school.discovery.com/>

Quia

<http://www.quia.com/web>