

TIME: 45 min.

Kansas Archaeology Month

Discovering Prehistoric Trails

This lesson is divided into four sections: instructional goals, advanced preparation, activity, and glossary.

Instructional Goals

Lesson Plan Overview: The students will learn the different types of information archaeologists use to locate and map prehistoric Indian trails.

Standards this lesson correlates to

Eighth Grade

Science

Standard 1, Benchmark 1, Indicators 1, 3 & 4
Standard 1, Benchmark 3, Indicator 1

United States History

Benchmark 3, Indicator 3

Kansas History

Benchmark 8, Indicators 1 & 3

Geography

Benchmark 1, Indicators 2 & 4

Sixth Grade

Geography

Benchmark 1, Indicator 1
Benchmark 4, Indicator 2
Benchmark 4, Indicators 2 & 3

World History

Benchmark 5, Indicator 2

Objectives

- β The students will learn what terrain makes for a good trail location.
- β The students will learn about different factors archaeologists use to identify prehistoric trails.

Skills Taught: Mapping, comparison, contrast, analysis, decision making, drawing conclusions.

Student Prior Knowledge: The students should have an understanding that some terrain is easier to cross than other terrain. They should know what features of the landscape they would use if they were going to walk across the state before the existence of modern roads.

Advance Preparation

Prepare Yourself

- β Read “Prehistoric Trails in Kansas” information sheet
- β Assemble materials you will need (Materials Needed) and familiarize yourself with the worksheets.
- β Duplicate worksheets and answer sheet as indicated in materials needed.

Materials Needed

- “Prehistoric Trails In Kansas” information sheet (one per student and one for teacher)
- Activity Sheet (one per student)
- Map and Key (one per student)
- Answer Sheet for Activity Sheet (one for teacher)
- Pencils or pens

Activity

Opening Activity

1. Activate **prior knowledge** of the students by asking the students these questions and recording their answers on half of the board.

What kinds of terrain would you have encountered if you had set out to walk across what is now Kansas before the existence of modern roads?

On such a trip across the state, what kinds of features in the landscape would you look for to help you in your journey?

2. Pass out “Prehistoric Trails in Kansas” and have the students read this information sheet.

3. Ask the students the following questions and record their answers on the other half of the board.

What are some naturally occurring features in a landscape that are important to consider when looking for a route across that terrain?

A good route would include proximity to water, the easiest place to ford a stream, a ridge that allows easy walking and avoids going up and down hills, the availability of raw materials such as stone for tools, and the proper environment for game that the travelers hunted.

What manmade features do archaeologists use to help identify a prehistoric trail across a landscape?

Archaeologists use a combination of features to help identify what would have been a good route, including the presence of archaeological sites, stone cairns, burials, cache pits. They also get clues by studying the ethnographic record.

Learning Activity*

1. Give the students copies of the map and key for Discovering Prehistoric Trails. Take a few minutes to make sure that they look at the activity directions, map key, and ethnographic information.
2. Tell the students that they are archaeologists for a day. Using what they now know about how archaeologists identify trails and the information provided on the map, draw where they think the trail would go, connecting the star site to other dots on the map. (They should not just draw a straight line between the points.)
3. Have students complete the Activity Sheet as they map their routes.

* This activity can be done in small groups.

Closing Activity

1. Select a couple of students to share their routes with the class. Did everyone choose the same route? Why was one route picked over another route? If everyone's route was basically the same, ask why they did not go another way.

2. Discuss why some trails are used over and over again.

Often trails are used over and over again because they follow the resources and because they are familiar. Early explorers and settlers followed old Indian paths because these trails were situated to utilize the resources available from one area to the next. Still today when taking a trip, people often go the same way—even if they could take a new route—because they know where the good rest stops are or a favorite town lies along the road.

3. Discuss what archaeologists can learn from studying prehistoric trails.

By studying prehistoric trails, archaeologists can learn how cultures spread from one region to another, about trade routes, as well as how people moved across the landscape seasonally to get the resources they needed to survive.

Glossary for Lesson

Archaeologist: a scientist who studies human beings of the past, using techniques and methods centered on the examination and interpretation of physical remains left behind by past cultures.

Archaeological site: any location of past human activity, evidenced by the remains of that activity.

Cache pit: hole dug into the ground for storage of food, stone for tools, or other objects until needed.

Divide: a ridge or section of high ground between two basins or areas of drainage; a watershed. The Flint Hills is one such divide in Kansas.

Ethnographic record: accounts of events and practices from the people who were there or the people who engaged in the activity described.

Historic: the time period for which written documentation exists; in Kansas after A.D. 1541.

Prehistoric: the time period before written history; in Kansas before A.D. 1541.

Raw material: natural resource suitable for development or refinement by humans but in or nearly in an unaltered state; examples are stone, wood, grass, clay, and bone.

Stone cairn: rocks intentionally stacked to mark a spot.

Terrain: the physical features of a tract of land

Prehistoric Trails in Kansas

Did you ever wonder why a road follows a particular path? Many times the roads of today cover much older roads—trade routes, ways to good hunting grounds, or routes connecting Native American villages. **Archaeologists** looking for clues of these early trails study several things: the **terrain**, the nearness to **raw materials**, the presence of **archaeological sites**, and the **ethnographic record**.

Landscape

The terrain that a trail crosses can be very important. Both humans and animals will favor the easiest and/or most familiar path. A way to get from point A to point B without walking up and down the steepest hills or crossing the boggiest river bottom is the preferred way to go. Many trails follow along the **divides** that separate the major rivers. Several such divides occur in Kansas. The Flint Hills Divide runs from Oklahoma to the Kansas River and then north to the Platte River in Nebraska. Another such divide runs more or less east to west across the state, linking the Kansas and the Arkansas rivers.

People often make trips to get supplies. In **prehistoric** times before people could go to a store, they moved along routes where they could collect the raw materials they needed—wood, stone, and clay to name a few. The Flint Hills has stone that Native Americans used for making tools. The Kansas prairies provided grasses for shelters and bison for meat, hides, and bones that were turned into food, clothing, and tools for daily living. Water for drinking and cooking is always a critical factor; no one would want to set out on a long journey without knowing the location of the next water.

Archaeological Record

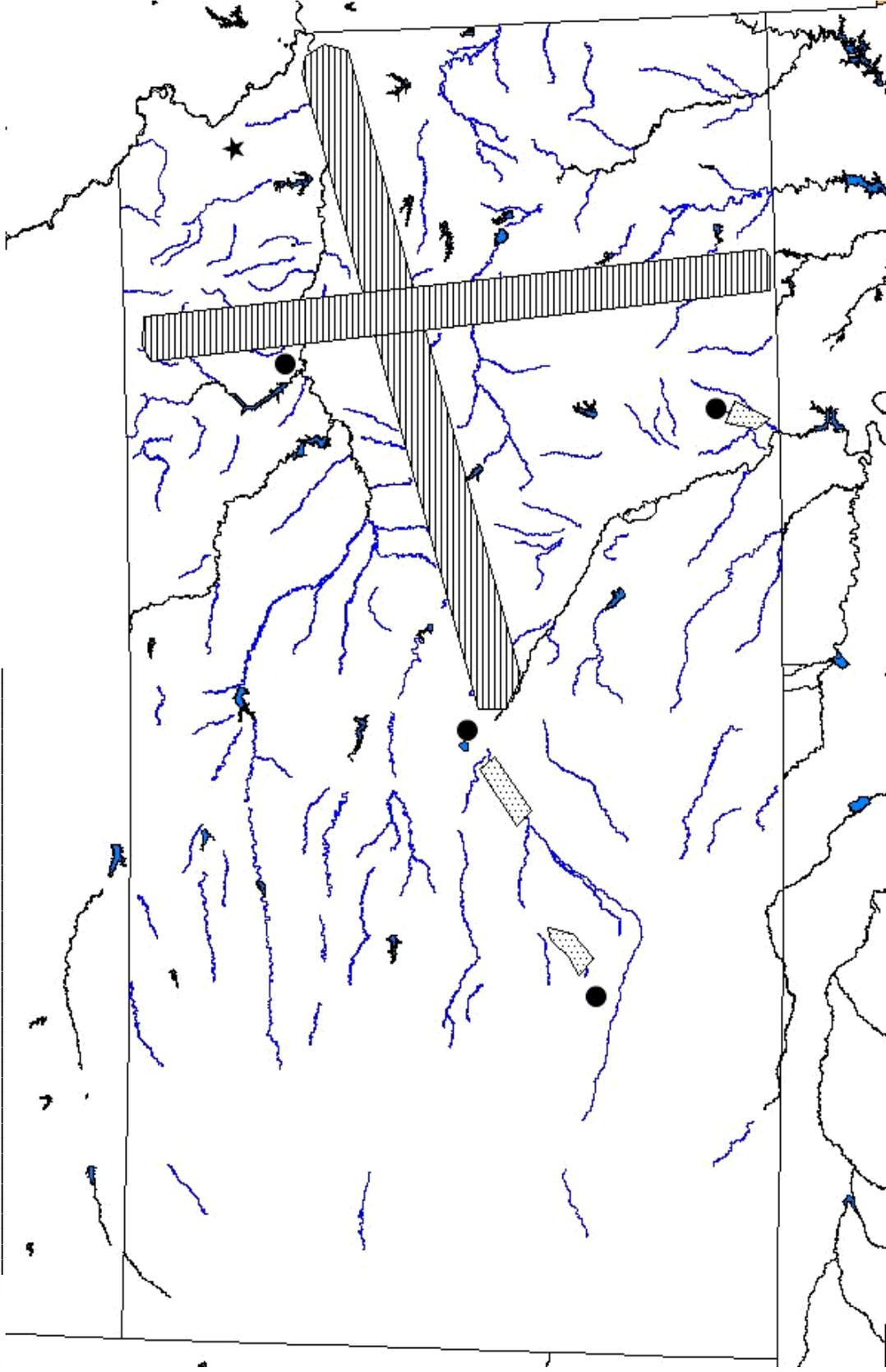
Archaeologists use manmade evidence to help identify prehistoric trails. One such clue is the presence of many archaeological sites in an area. The presence of numerous archaeological sites does not necessarily confirm the existence of a trail, especially along stream drainages that naturally tend to have a higher percentage of sites. However, when taken with other evidence at those sites, such as **stone cairns**, **cache pits**, and burials, higher site density may be a good indicator of a trail through a given area. The purpose of stone cairns is not always known, but they might serve as guides or markers. Cache pits, while commonly found at villages and camps, also can indicate a trail when they are not associated with house remains. Non-local materials found at sites may point to regional trade or seasonal movement across the prairie.

Archaeologists also use ethnographic information to gain a better understanding of the uses and positions of earlier trails. Many of the trails, such as the Pawnee Trail, Old Kaw Trail, and Osage Trail, while best known in the **historic** period, were in fact well-established prehistoric trails.

Many times archaeologists cannot conclusively identify the entire route of a trail because intensive farming, cattle trails, farm roads, railroads, highways, or housing developments have disturbed the ground surface and removed or hidden old trail scars. Often multiple kinds of evidence are needed to deduce where a trail ran. However, trail studies can provide archaeologists with insights about how people lived, moved, and interacted across the Kansas landscape through time.

Reference: Robert Blasing (1986) *Prehistoric Geography of the Flint Hills*. Unpublished Master's thesis, Department of Anthropology, Wichita State University.

NAME _____



Directions

You are an archaeologist who has discovered a new site at the star location. You found several items at the site that are not made of local material or are common to this region. You hypothesize that the people who lived there must have traded with people to the west. In addition, tools made of bison bones, as well as quantities of other bison bones, suggest a seasonal hunt to the western grasslands. Use the information provided in the key, the ethnographic information, and what you have learned about how archaeologists identify prehistoric trails to connect the star site with the four other sites (dots) on the map. You do not have to draw a different trail to each site but can go through one site to get to the next if you wish.

Map Key



New site that is the start of trail(s)



Other sites that must be connected to the new site either individually or through each other



Divides



Areas of higher percentage of archaeological sites including stone cairns, burials, and cache pits

Other lines on the map represent lakes, rivers, and streams.

Ethnographic Information

Both the Wichita and Pawnee are cultures that had dual economies. They planted gardens in the spring then left their villages to go on annual or semi-annual bison hunts. They returned in time to harvest their crops and prepare for winter. The Pawnee and the Wichita are related and maintain ties even today. In early historic times, when the Pawnee still lived in eastern Nebraska and the Wichita lived in eastern Oklahoma, the tribes took turns going from Nebraska to Oklahoma or from Oklahoma to Nebraska. These visits maintained the bonds between the groups and allowed for goods to be traded and shared. While there were not set dates for these visits, they often occurred during the times when the Wichita and Pawnee were hunting bison in the grasslands of central and western Kansas.

ALL ARCHAEOLOGICAL SITE INFORMATION HAS BEEN CREATED FOR THIS ACTIVITY AND DOES NOT ACCURATELY REFLECT KNOWN SITE LOCATIONS.

Name _____

1. Discuss two or more naturally occurring features in the landscape that are important in picking a route across that terrain.

These can be any of the features discussed in the handouts or in the class. Examples are flat treeless land, gentle hills, stream crossings with rock bottoms. Students must explain why the features are important to identifying trails.

2. Discuss at least two other features that archaeologists use to help identify a prehistoric trail.

These can be any of the features discussed in the handout or in class. Examples are archaeological sites, stone cairns, cache pits, burials, non-local materials.

3. Discuss one reason that archaeologists sometimes have problems identifying prehistoric trails.

Recent activity often obscures evidence of old trails. Many times archaeologists cannot conclusively identify the entire route of a prehistoric trail because later historic trails, intensive farming, cattle trails, farm roads, railroads, highways, or housing developments disturb the ground surface and remove or hide old trail scars. Often it is not easy to distinguish between a trail made by humans and those made by cattle or other animals or between a historic wagon trail and old farm roads.

4. Discuss what archaeologists learn from studying trails.

Trail studies provide archaeologists with information about the spread of cultural traits and objects, trade networks, and migration and seasonal movement of prehistoric people across the landscape and through time.

5. Discuss the factors you considered in mapping your trail.

Students should explain why they chose the routes they mapped

Standards Used in Discovering Prehistoric Trails

The following are the Kansas Board of Education Standards that are applicable to the Discovering Prehistoric Trails lesson. The following are not the complete set of Standards, nor do examples or further explanation accompany these. For a complete copy of the standards visit <http://www.ksbe.state.ks.us/Welcome.html>

Science Standards - Eighth Grade

Standard 1: Science as Inquiry

Benchmark 1: The student will demonstrate abilities necessary to do the process of scientific inquiry.

Indicator 1: Identify questions that can be answered through scientific investigation.

Indicator 3: Use appropriate tools, mathematics, technology, and techniques to gather, analyze and interpret data.

Indicator 4: Think critically to identify the relationship between evidence and logical conclusions.

Benchmark 3: The students will analyze how science advances through new ideas, scientific investigations, skepticism, and examining evidence of varied explanations.

Indicator 1: After doing an investigation, generate alternative methods of investigation and/or further questions for inquiry.

United States History Standards - Eighth Grade

History Standard: The student uses a working knowledge and understanding of significant individuals, groups, ideas, events, eras, and developments in the history of Kansas, the United States, and the world, utilizing essential analytical and research skills.

Benchmark 3: The student engages in historical thinking skills.

Indicator 3: examines historical documents, artifacts, and other material, and analyzes them in terms of credibility, as well as the purpose, perspective, and point of view for which they were constructed.

Kansas History Standards - Eighth Grade

History Standard: The student uses a working knowledge and understanding of significant individuals, groups, ideas, events, eras, and developments in the history of Kansas, the United States, and the world, utilizing essential analytical and research skills.

Benchmark 8: The student engages in historical thinking skills

Indicator 1: examines historical material relating to Kansas history, analyzes changes over time, and makes logical inferences concerning cause and effect.

Indicator 3: examines historical documents, artifacts, and other materials of Kansas history and analyzes them in terms of credibility, purpose, perspective, or point of view.

Geography Standards - Eighth Grade

Geography Standard: The student uses a working knowledge and understanding of the spatial organization of Earth's surface and relationships among people, places, and physical and human environments in order to explain the interactions that occur in our interconnected world.

Benchmark 1: Maps and Location: The student uses maps, graphic representations, tools, and technologies to locate, use and present information about people, places and environments.

Indicator 2: develops and uses different kinds of maps, globes, graphs, charts, databases, and models.

Indicator 4: evaluates the relative merits of maps, graphic representations tools, and technologies in terms of their value in solving geographic problems.

Geography Standards - Sixth Grade

Geography Standard: The students use a working knowledge and understanding of the spatial organization of Earth's surface and relationships among people, places, and physical and human environments in order to explain the interactions that occur in our interconnected world.

Benchmark 1: Maps and Location: the students uses maps, graphic representations, tools and technologies to locate, use and present information about people, places, and environments.

Indicator 1: explains and uses map essentials.

Benchmark 4: Human Systems: The student understands how economic, political, cultural, and social processes interact to shape patterns of human populations, interdependence, cooperation, and conflict.

Indicator 2: analyzes the cause and effects of human migration on places and population.

Benchmark 5: Human-Environment Interactions: The students understand the effects of interactions between human and physical systems.

Indicator 2: describes the impact of natural hazards on people and their activities.

Indicator 3: explains varying viewpoints regarding resource use.

World History Standards - Sixth Grade

History Standard: The student uses a working knowledge and understanding of significant individuals, groups, ideas, eras, developments, and turning points in the history of the world from prehistoric times through the pre-classical civilizations.

Benchmark 5: The student engages in historical thinking skills.

Indicator 2: identifies artifacts and documents from which historical accounts are constructed as either primary or secondary sources of historical data.