John Jarvie Historic

Come we're OPEI

Ranch

Authored by: Joel Arvizo-Zavala, Amanda Scheuerman, Kylee Ehmann

Grade 4-5

Acknowledgements

The Bureau of Land Management, Vernal Field Office, reached out to the utah State Historic Preservation Office, a branch of Utah Division of State History, in the Spring of 2019 to do a two part project. The first was to implement and complete a detailed archaeological catalog of the artifacts at Jarvie Historic Ranch, which was completed by Chase Roberts. The second Part was to design, create, and develop curriculum related to Jarvie Ranch. We would like to thank the BLM for the opportunity to take part in the Jarvie Historic Ranch Project.

The American West Center generously loaned multiple historic maps that were used in the development of the Jarvie Historic Ranch Curriculum Project. We are grateful to the American West Center for the use of these maps and the wealth of knowledge shared.

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How to Use This Curriculum

This curriculum brings together history, science, social studies, art and more as a way to create a high level of engagement between students and teachers. This interdisciplinary approach creates the space for educators to help their student immerse themselves in the content and provides lessons and activities that get students thinking differently about their learning. The curriculum is organized as follows:

- a) **Background Knowledge for Teachers:** throughout the curriculum you will see that each lesson provides essential background knowledge for teachers to review prior to teaching the lesson to their students. This background knowledge is an essential ingredient to delivering full and relevant content to the students and is presented in a way to spark the curiosity of teachers to engage in the material in meaningful ways with their students.
- b) Additional Resources: at the end of each lesson supplemental materials and resources are available for teachers to review, view, and more in preparation for teaching these lessons. These supplemental materials are there to support both teachers and students in 'diving deeper' into the content and to peruse material that can support learning and instruction. We encourage educators to look through these materials prior to teaching the lesson to see how you might incorporate them into your plan.
- c) **Student Content**: Some of the lessons have specific student content that you can easily copy and provide directly to students. This student-specific content is written (Lexiled) for the specific grade the lesson plan targets and will provide opportunities for your students to engage in direct reading of lesson content. Feel free to utilize this student content as precursor to lesson activities, to promote and develop literacy skills, and more.
- d) **History Primary and Secondary Sources:** since this curriculum was created as a partnership between the Utah Bureau of Land Management (BLM) and the Utah Division of State History, there are numerous primary and secondary sources provided for you and your students. Utilize these resources as suggested in the lesson plans but also feel free to explore ways to use these sources to hone in on literacy and critical thinking skills.
- e) **References and Citations:** At the end of each lesson educators will find relevant citations and references that were used to inform the curriculum. Please utilize these resources to gain further knowledge (academic or otherwise) regarding the content and information that is presented in the lessons. Feel free to reach out to the curriculum authors to find out more information about relevant literature and references that can inform you teaching.

Pedagogy and Teaching Methods

This curriculum is designed to help both educators and students learn about the John Jarvie Historical Ranch in an engaging and inquiry-driven way. We want educators to read through the lesson content and to engage their own curiosities about how things work (the architecture lesson), the history of people who utilized the ranch for good and not so good (the outlaw lesson), the ties to Native American experience and culture (the Ute lesson), and more. Each of the lessons presented in this curriculum takes a unique approach to student learning. The history-focused lessons emphasize critical thinking, use of historical documents, and interactive experiences to support internalization of lesson content. The science focused lessons create opportunities for teachers and students to collaborate, use inquiry-based learning, and to remain open and curious about the scientific process. It is with these things in mind that all educators, historians, public officials and more who use this curriculum will be able to demonstrate to students that learning is a lived experience; something that allows all of us to experiment and try out new things. Pedagogically speaking there are three main elements to the lessons in this curriculum:

- a) Through the hands-on activities we encourage teachers to give their students freedom to explore content, openly share ideas, and think creatively.
- b) We want both students and educators to use these lessons plans to learn about the John Jarvie Historical ranch and to fuel a passion for life-long learning of historical sites and the geology, ecology, and social histories surrounding them.
- c) Mostly, we want students to have an opportunity to develop academic and social skills that will serve them well as they progress through the education system but also as future scientists, historians, and more.

These lessons are an opportunity for everyone involved to have fun, be engaged in learning, and to try out new techniques that lend themselves well to deep and profound learning. We hope that you enjoy teaching these lessons as much as we had writing and creating them.

Curriculum Objectives

In addition to aligning creative, inquiry-based learning practices with Wyoming, Utah, and Colorado's educational standards, the lesson plans in this curriculum have specific learning outcomes that tie specifically to the John Jarvie Historical Ranch site. These learning outcomes are broad, allowing for some leeway in how educators and their students feel they were met by the information and activities in each lesson plan. The following intended learning outcomes are repeated at the bottom of the second page of each lesson plan:

Intended Learning Outcomes:

Ute Map Lesson: Students will become familiar with Ute Lifeways, dispossession, and culture.

Jarvie Ranch Store: Students will understand how people in rural communities ordered goods required for daily life.

Ranching in Brown's Park: Students will understand ranching culture in the American West and the importance of ranchers in the expansion of the United States.

Outlaws of Brown's Park: Students will define, recognize, and analyze primary, secondary and folkloric documents.

Geology: Students will see geology as part of a dynamic system with which humans interact.

Ecology of Brown's Park: Students will understand the ways in which the environment is a complex, interconnected system.

History & Architecture: Students will learn the basics of engineering through the history and use of place-based learning.

In addition, the following lesson plans are intended to encourage the development of life skills that will assist students in their academic and personal life. The following life skills are covered in the curriculum, though not every lesson plan is built to develop each:

Agricultural literacy, Analytical thinking, creative inquiry through art, critical thinking, cultural inclusivity, economics and culture, geography, historical interpretation, historical thinking, interpretive skills, language arts, literacy development, logic development, mapping, mechanics and engineering, media literacy, observations, scientific inquiry, teamwork, using and citing sources (differentiating between primary and secondary sources), visual analysis.

The specific life skills used in each lesson plan are located on the second page of each plan in the bottom left-hand corner.

Summary of Standards

The lesson plans in this curriculum were created to tie into the science, language arts, social studies, library media, and fine arts standards of Wyoming, Utah, and Colorado. Using the standards laid out by each state, these lesson plans encourage students and educators to explore these topics in ways that encourage creativity, critical thinking, and hands-on learning.

Not every lesson plan contains standards that applies to each of these core studies. For example, the Ute Lesson plan does not contain any science standards, while the Geology does not contain any library media standards. Listed below are a broad summary in how the three states' standards were combined and used to create a comprehensive and dynamic set of lesson plans.

Science: The science standards used for project are interpreted to encourage students to think about the process of science rather than the end results. Instead of encouraging students to try to reach a singular "correct answer," the standards ask educators to get students to think about the thought processes that go into science (critical thinking, trial and error, hypotheses, experimentation). These processes are reflected in the National Research Council's "Three-Dimensional Science," which reframes science as practices (the doing of science), crosscutting concepts (patterns, similarity, and diversity; Cause and effect; Scale, proportion and quantity; Systems and system models; Energy and matter; Structure and function; Stability and change), and disciplinary core ideas (being teachable and learnable, emphasizing interdisciplinary sciences, relating to the interests of students).

Language Arts: The language arts standards used for this project are interpreted to encourage students to read primary sources, secondary sources and other informational texts thoroughly, critically, and comprehensively. Students are not expected to understand every word, but they are expected to be able to read, synthesize, and summarize the works that they have read. Educators should use this to build up foundational skills such as reading with fluency and accuracy.

Social Studies: The social studies standards used for this project are interpreted to encourage students to think about their place in the historical narrative. Students are expected to be able to identify cause and effect and how events impact each other, how historical events are interpreted by different groups of people, and which groups of people

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(indigenous, settlers, modern immigrant groups) make up and are integral to a region's history.

Library Media: The library media standards used for this project are interpreted to encourage students to read primary sources, secondary sources and other informational texts thoroughly, critically, and comprehensively. Additionally, students are expected to be able to identify primary, secondary, and folkloric sources and determine if they are trustworthy and factual documents.

Fine Arts: The fine arts standards used for this project are interpreted to encourage students to integrate artistic representations and thinking into STEM (Science, Technology, Engineering, Math) and into historical thinking. Artistic processes such as crafting are integrated into other processes to reinforce the other standards in creative ways.

For a complete list of all standards from all three states as they apply to each lesson, refer to page 3 of each lesson plan.

John Jarvie Ranch Historical Site Introduction

Historic Jarvie Ranch is located in Daggett County, Utah, in a basin called Brown's Park. Brown's Park sits on the border between present-day Utah and Colorado with its northern boundaries sometimes reaching into Wyoming. Today, the region is known as Brown's Park, however it was also known as Brown's Hole in the nineteenth century. The basin's name was changed to Brown's Park after John Wesley Powell decided "Park" was more indicative of its beauty.¹

Ever since the Bureau of Land Management acquired Jarvie Historic Ranch in 1982, extensive efforts have been made to preserve the history of the ranch and its buildings. The BLM has carefully constructed a cultural resource management plan to recreate life as it was in the 1880s and early 20th century. Jarvie Ranch, which was registered on the National Register of Historic Places in 1985, has around a dozen and a half buildings and structures that date to the Jarvie period (1880-1909). These buildings recreate ranch life on the frontier.

In the spring of 2019, the BLM reached out to the Utah State Historic Preservation Office to complete a two part project for Historic Jarvie Ranch. The first portion of the project included a detailed catalog of all of the artifacts found at Jarvie Ranch. This was completed by Chase Roberts in the summer of 2019. The second portion of the project involved the development of a series of curricula that included the ecology, geology, architecture, and history of Jarvie Ranch. This was completed by Amanda Fountain-Scheuerman, Joel Arvizo-Zavala, and Kylee Ehmann.

On the surface, this looks like a singular local and perhaps regional history. The Jarvie Ranch has been a favorite for thousands of visitors looking for a glimpse into frontier life. However, the history of Jarvie Ranch and Brown's Park teaches us this and much more. The history of Jarvie Ranch teaches us about the interconnectedness of past trends and currents in history. Such events had a lasting impact on the various peoples that called Brown's Park home.

Background/History

Historic Jarvie Ranch sits along the Green River in Brown's Park. John Jarvie was a colorful figure in the late nineteenth and early twentieth century's Brown's Hole. Jarvie was a rancher and a miner. Until his death in 1909, Jarvie Ranch was the center of economic and social life in Brown's Hole. Historic Jarvie Ranch gives clues into the lifeways of early settlers in Utah, Colorado, and Wyoming. Visitors are able to experience life as it would have been on the frontier. While the ranch teaches about the region's past, its history is also linked to national trends and themes in U.S. history. The following summary reviews not only the history of Jarvie Ranch and Brown's Park, but also explores key links to the history of the United States.

¹ John W. Van Cott, *Utah Place Names: A Comprehensive Guide to the Origins of Geographic Names, A Compilation,* Salt Lake City: University of Utah, 1990, 52.

The history of Jarvie Ranch started centuries before John and Nell Jarvie settled in Brown's Park in 1880. American Indians lived and hunted in the region known to the Ute people as "A-kum-pu-wo-kuts," or Sunflower Valley, for centuries before European exploration and subsequent immigration.

Dominguez and Escalante wrote that American Indians were living in Brown's Hole in 1776 during their expedition into northern Spanish territory and in 1805, explorers such as Meriwether Lewis and William Clark led the Corps of Discovery into Brown's Hole. William Henry Ashley, the nineteenth century fur trader, gave an account of Brown's Hole in 1825. "Suddenly, the mountains drew back, the river widened, and they shot out into beautiful Brown's Hole. Ten miles below was a great campground where thousands of Indians had wintered." (Tennent pg 8). The following year, the now famous, Mountain Man rendezvous, was held at Brown's Hole.

Brown's Hole was an important location for hunters and the fur trade. Fur trappers, traders, and American Indians from all over the region would meet at Brown's Hole to trade for goods. Because American Indians already knew about the location, and had used it for generations, it became a likely spot for such meetings. Several key historical figures were mountain men that stayed in Brown's Hole including: Kit Carson, Jack Robinson, and Robert Newell.² Trader William T. Hamilton recalled that

"Besides the trappers there were at the rendezvous many Indians -- Shoshones, Utes, and a few lodges of Navajos, -- who came to exchange their pelts for whatever they stood in need of... The days were given to horse racing, foot racing, shooting matches; and in the evening were heard the music of voice and drum and the sound of dancing."³

By the 1830's Fort Davy Crockett was erected, making Brown's Hole an economic center by connecting much of the northern fur trade with the southern trade.⁴ Fort Davy Crockett was unique in that there were only three such forts erected with a dedicated mission of trading furs. Hunters and traders obtained licenses to trade with American Indians at the fort. While economically integral to the growth of the nation into the American West, the fur trade at Fort Davy Crockett only lasted until the 1840's. Fort Davy Crockett was eventually abandoned, however the fur trade continued. John Wesley Powell's journal on May 29th, 1869 hinted that Brown's Park was still occupied by numerous fur trappers when he visited the area. Although the fur trade was in decline, the region remained of interest to settlers and explorers.

² Tennent, William W. John Jarvie of Brown's Park. Bureau of Land Management, 1981, page 9.

³ William Thomas Hamilton, *My Sixty Years on the Plains: Trapping, Trading, and Indian Fighting,* New York City: Skyhorse, 1905.

⁴ Tennent, *John Jarvie of Brown's Park*, 9.

One such explorer was John C. Fremont. Fremont went on several expeditions in the American West to survey the region. His explorations helped facilitate Anglo-American settlement in the western territories and states. Fremont mentioned Fort Davy Crockett in 1844 during his exploration of Brown's Hole and left a comment in his journal that he found its remains.⁵

After the discovery of gold in California, Brown's Park became an integral stop for many cattle ranchers, helping in the growth of the industry. In the 1850's and 1860's, Texas cattlemen drove their livestock to Brown's Park for the winter months. Brown's Park became part of an established cattle trail during this time. Settlers, such as the prospector Sam Bassett and Annie and Warren D. Parsons arrived in Brown's Park at this time.

In the 1870's Juan Jose Herrera settled in Brown's Park. Herrera served as the territorial translator in New Mexico and was a district leader for the Knights of Labor.⁶ In 1887, Herrera temporarily left Brown's Park for New Mexico, where he founded Las Gorras Blancas - an organization that fought against Anglo-American encroachment on Northern New Mexico's land.

During this time, several cattle ranchers continued to winter their cattle in Brown's Park. The word of Brown's Park as a stop along cattle drive trails began to spread. People important to the history of Brown's Park began to settle in the valley. Dr. John Parsons was one such settler. Parsons was the son of Annie and Warren Parsons. Dr. Parsons arrived in Brown's Park in 1874. He built a ferry to cross the Green River and the first Post Office in Brown's Park in 1878. The Parsons' cabin was registered on the National Register of Historic Places until it burned down in 1978.

In addition to cattle ranchers, several people seeking to escape the law found refuge in Brown's Park. The valley strategically straddled two states - Utah and Colorado, with some of it reaching north into Wyoming. Brown's Park's location gave outlaws the ability to cross territorial and state boundaries in order to avoid capture. Outlaws and cattle rustlers such as the Sundance Kid (Harry Longabaugh), Butch Cassidy, the Tip Gault Gang, and Kid Curry (Harvey Logan) found refuge at Brown's Park.

John Jarvie was born in 1844 in Scotland. He immigrated to the United States by 1870 and lived in Rock Springs, Wyoming where he opened a saloon. Jarvie became a U.S. citizen on October 8, 1875.⁷ Jarvie married a singer named Nellie Barr when her family stopped in Rock Springs en route to Oregon. The two moved to Brown's Park in 1880 and settled along the Green River.

⁵ Tennent, John Jarvie of Brown's Park, 17.

⁶ Tennent, John Jarvie of Brown's Park, 27.

⁷ Tennent, John Jarvie of Brown's Park, 47.

While a store and log house were being built, John and Nellie Jarvie stayed in a dugout that was built by Bill Lawrence using skills he learned while in prison. The dugout still stands at Historic Jarvie Ranch. As soon as the three-room log house was complete, the couple moved in.

John Jarvie opened a general store and trading post along the Green River. This soon became the economic and social center of Brown's Park. People from as far as 70 miles away could purchase goods from the store. In addition to the store, Jarvie took over as postmaster for the Brown's Park Post Office in 1881. It later closed in 1887 when Jarvie was asked to investigate another post office. Jarvie decided it was better to end his position as postmaster rather than spy on a colleague. Jarvie also operated a flatboat ferry to help people across the Green River. Jarvie often took produce and farm products in lieu of payment for passage on the ferry.⁸

John Jarvie was tied intricately to the rapidly growing cattle industry as a rancher. Brown's Park was a favorite wintering spot for Texas cattlemen driving their herds to California. The gold rush and the Civil War increased the need for cattle throughout the American West and the industry really took off after the transcontinental railroad made it possible for cattle to be quickly shipped and processed for consumption. For his ranch, Jarvie built several buildings and a corral which still stand today at Historic Jarvie Ranch.

The unique geology of Brown's Park pulled John Jarvie into the mining industry. This occurred as the copper industry was exploding due to an increase in the use of brass, the invention of the electrical wire, and the telephone. Jarvie lost money in the mining venture, but he continued to search for possible mines throughout Brown's Park.

A rumor was spread that John Jarvie had a cache of money locked away in a safe in his store. Jarvie employed a man named George Hood in 1908. Hood believed that the rumors of Jarvie's hidden wealth were true. On July 6, 2909 Hood returned to Jarvie's ranch with his partner, Bill McKinley. After forcing Jarvie to the store and forced him to open the safe. The safe was next to empty with only a revolver and a one hundred dollar bill. There was a brief struggle and Jarvie ran. He only made it to the river before the two shot and killed him. McKinley and Hood tied Jarvie's body to a boat and sent him down the river. Jarvie's body was found eight days later. McKinley and Hood were never found.

Although John Jarvie's life ended abruptly and early, his ranch continues to tell his story and much more. Jarvie Ranch today is a physical reminder of life on the frontier and the history of the United States as it expanded West.

⁸ Tennent, *John Jarvie of Brown's Park,* 53.

Introduction References

Cott, John W. Van. *Utah Place Names: A Comprehensive Guide to the Origins of Geographic Names, A Compilation.* Salt Lake City: University of Utah Press, 1990.

Hamilton, William Tomas. *My Sixty Years on the Plains: Trapping, Trading, and Indian Fighting.* New York City: Skyhorse, 1905.

Tennent, William W. John Jarvie of Brown's Park. Bureau of Land Management. 1981.



John Jarvie Historic Ranch: History & Architecture

Authored by: Joel Arvizo-Zavala



Grade 4 Adaptable to Grades 3 or 5

LESSON PLAN DETAILS

Time Frame:

1 hour and 30 minutes [2 class periods, each at 45 minutes]

<u>Group Size:</u>

 2-3 to construct the water wheel.
 Can also be done individually.

<u>Materials:</u> Complete list of materials located under the Student <u>Replica Waterwheel</u> exercise.

<u>Life Skills:</u>

Critical thinking, literacy development, scientific inquiry, mechanics and engineering

Intended Learning Outcomes:

Students will learn the basics of engineering through the history and use of place-based learning.

Jarvie Ranch History & Architecture Lesson Plan

By: Joel Arvizo-Zavala

This lesson plan is intended for fourth and fifth grades.

SUMMARY

The water wheel at Jarvie Ranch is the inspiration for this lesson. Water wheels in multiple variations have served instrumental to helping humans build their societies. From irrigation to the generation of power, water wheels have significantly influenced how we approach providing water and electricity to our growing communities. We hope that when you and your students visit Jarvie Ranch, you'll take what you learn from this lesson and apply it to what you see at the ranch.

The purpose of this lesson is to introduce students to the history and architecture of the water wheel. Through leveled reading content, students will be able to directly connect with the history and architecture of water wheels; leading to students building their own replicas of water wheels at the end of the lesson. Students will have opportunities to work in teams of two or three as well as individually.

Relevant Core Standards

Utah Standards 4th Grade

Language Arts (Reading)

- 1. *Informational Text Key Ideas and Details:* Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.
- 2. *Informational Text Craft and Structure:* Determine the meaning of general academic and domain-specific words or phrases in a text relevant to the subject area.
- 3. *Informational Text Integration of Knowledge & Ideas:* Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.
- 4. *Foundational Skills Phonics and Word Recognition*: Know and apply grade-level phonics and word analysis skills in decoding words.
- 5. *Foundational Skills Fluency:* Read with sufficient accuracy and fluency to support comprehension.

Science

- 1. Standard 3; Objective 1 Demonstrate how forces cause changes in speed or direction of objects.
- 2. Standard 3; Objective 2 Demonstrate that the greater the force applied to an object, the greater the change in speed or direction of the object.

Colorado Standards & Skills 4th Grade

- 1. Science; Standard 1; Physical Science Apply an understanding that energy exists in various forms, and its transformation and conservation occur in processes that are predictable and measurable.
 - a. Concept and Skill 1 Energy comes in many forms such as light, heat, sound, magnetic, chemical, and electrical
 - i. Evidence Outcomes: Identify and describe the variety of energy sources.
 - ii. Evidence Outcomes: Use multiple resources including print, electronic, and human to locate information about different sources of renewable and nonrenewable energy.
 - iii. Relevance and Application: There are multiple energy sources, both renewable and nonrenewable.
 - iv. Nature of Science: Critically evaluate model of energy, identifying the strengths and weaknesses of the model in representing what happens in the real world.

Wyoming Standards & Skills Elementary Grades

1. Science; Content Standard 4; Energy – Ask questions and predict outcomes about the changes in energy that occur when objects collide.

- a. Literacy Connections: Recall relevant information from experiences or gather relevant information from print and digital sources; take notes and categorize information, and provide a list of sources.
- 2. Science; Content Standard 4; Energy Apply scientific ideas to design, test, and refine a devise that converts energy from one form to another.
 - a. Literacy Connections: Conduct short research projects that build knowledge through investigation of different aspects of a topic.

Background for Teachers

Students will be able to:

- 1. Identify the different types of water wheels and their various uses.
- 2. Understand the purpose of the water wheel at Jarvie Ranch and then use this knowledge to better understand the process of irrigation.
- 3. Be able to understand the architecture of water wheels and use this knowledge to build smaller replicas in the classroom setting.
- 4. Be able to identity three historical elements that have informed the use of the water wheel in modern times.

Introduction to Project-based Learning

In this lesson students will have access to both traditional and non-traditional content. The traditional content comes in the form of a guided reading that teachers can do with their students to gain background knowledge and information on the architecture of Jarvie Ranch. The other part of the lesson is based in project-based learning (PBL). As the teacher, you have the option to guide the students into two different directions. One is a guided PBL where you will direct students on how to create a replica water wheel as a means to learn about the basic components to the machinery. The second is a more creative and flexible PBL where you can give students the materials listed in the lesson and they can work in teams of three or four to design their own water wheel technology using the lesson and pictures provided as a guide. Either

Lesson Plan Procedure

Class One & Two

- Create the water wheels over the course of two class periods. You are the best judge of students' abilities and time management skills.
- Explain the purposes of water wheels, their history, and the places they have been used throughout history.

option will help students improve their cognitive skills in three primary ways:

- Students will have an opportunity to develop critical thinking especially when given the option to design their own water wheels without explicit instruction.
- Students will develop skills in inference by taking what they know and using that information to pilot and test a model.
- Students will learn skills inquiry skills by providing the students with time and space to ask questions and get feedback on their models.

Teacher Resource: Water Wheels

General History of Water Wheels

Existing for many centuries, water wheels have been used by many human societies for two primary purposes, to generate energy and to provide irrigation for food sources (such as crops). With the invention of the water wheel, humans were able to bring water from nearby rivers into their homes, gardens, and to generate movement to grind grain, among other things. The water wheel requires minimal upkeep and is used in many areas throughout the world as a source of irrigation for crops. The water wheel is considered to be a much more environmentally friendly and sustainable technology; especially for areas of the world where economic inequity may prevent communities from gaining access to modern technology such as hydroelectric plants. Water wheels, typically, are emerged in a water source (e.g. river) where the force of the current moves the water wheel upwards while simultaneously collecting water. Once the water wheel reaches the top with water collected in its wells, the water is transferred to a flume, connects to an irrigation ditch, and then water is provided to crops.

The Water Wheel at Jarvie Ranch

The waterwheel located at Jarvie Ranch (a replica of the original) is an undershot water wheel that uses the current of the Green River to move the wheel from underneath. As the current from the river passes under, buckets located on the inside of the frame of the water wheel fill with water as the wheel moves upward, clockwise. Once filled, the buckets empty into a flume that leads to a trench carved out of the soil to irrigate the ranch's garden. The current replica of the original Jarvie Ranch water wheel, is located inside a small dam. Enclosed in concrete, the dam fills with water when the water level of the river rises. This process aids in water being delivered to both the water wheel and then subsequently to the nearby ranch garden.

| Function | An activity that is natural to the person or thing. | |
|-----------|--|--|
| Irrigate | Supply water to plants or the land to help them grow. | |
| Undershot | A waterwheel that has water flowing under it. | |
| Version | A form of something that is different from a previous version of | |
| | itself. | |
| Specific | Cleary defined or identified | |
| Ditch | A narrow channel dug in a field to hold or carry water away. | |
| Replica | A copy or model of something such as art or a machine. | |
| Creative | Using the imagination or an original idea to create something | |
| | new. | |

Lesson Vocabulary

| Similar | Having a similar appearance or quantity of something without | |
|---------|--|--|
| | being exactly the same. | |
| Ranch | A large farm where animals are kept. | |

Student Replica Waterwheels

Students will be provided with a set of materials to brainstorm and then build their waterwheel replicas in the classroom. The materials list is below and includes the name and quantity of each item. The process for students is the following:

| Materials List – Water Wheels Lesson | | | | |
|---|---------------------------------|-----------------------|--|--|
| ltem | Purpose | Quantity per Model | | |
| Plastic Water Cups – Clear – 3 or 4oz size | Fills Buckets | 4 | | |
| Straws – Biodegradable or Standard | Fulcrum/Pivot | 3 | | |
| Hot Glue & Glue Gun | Attaching Buckets to | 1 Gun & 2 Glue Sticks | | |
| OR Tacky Glue (Safer Option) | Spokes | OR 1 Bottle | | |
| Standard School Glue | Miscellaneous | 1 Small Bottle | | |
| Craft Sticks Large (Tongue depressor size) | Base of water buckets | 4 (Approximately) | | |
| Clay (Quick Drying) | Hub of Water Wheel | 2 ounces | | |
| Standard Ruler | Measure cuts in straws | 1 | | |
| Black (or another dark color) marker | Mark areas to cut on straws | 1 | | |
| Scissors | Cut straws to hold craft sticks | 1 | | |
| Duct Tape | Attaching fill buckets to wood | About 6 inches total | | |

Step 1: Provide students with materials listed in the table below

Step 2: Set a timer for 10 minutes to give students the ability to brainstorm their design and model.

Step 3: Set a timer for 25 minutes for student collaboration time to build their model

Step 4: Set a timer for 20 minutes for students to present their replica to the class.

Step-by-Step Guide for Miniature Replica Water Wheels

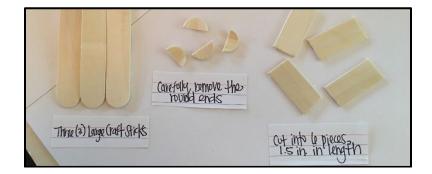
1. Pass out materials to students one-by-one starting with the quick drying clay. Students should be provided with approximately two ounces of clay but exact measurement is not necessary. Students should roll the clay into a tube that is approximately one inch in diameter and 1.5 inches long. This will serve as the hub of the water wheel. Put this aside for when it's time to assemble the water wheel.



1. Pass out three straws to each student. Once complete direct them to cut the straws in half to get a total of six. Using the rulers and markers provided have the students mark each straw 2 centimeters from the end. Ensure that the marks are dark enough and go across the diameter of the straw. Lastly, cut the straw on the mark ³/₄ of the way across ensuring not to cut the straw all the way through but rather creating a slit which will hold the craft stick later on. Put these aside for when it's time to assemble the water wheel.



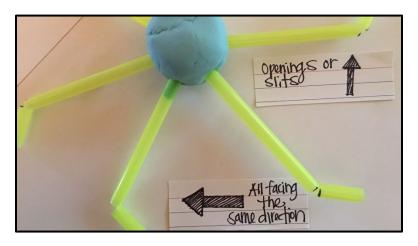
2. Pass out the large craft sticks to students; each model will need three. Remove the rounded ends from the sticks using scissors and discard. Using the ruler and scissor, instruct the students to cut each craft stick into two pieces, each totaling about 1.5 inches in length. Each model will need six 1.5 inch pieces from three craft sticks. Put these aside for when it's time to assemble the water wheel.



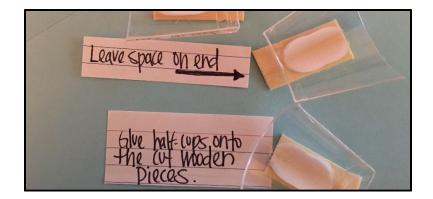
3. Pass out small, clear water cups to students; three (3) in total. Using scissors have the students carefully cut the water cups in half from top to bottom. Once completed each water cup half should be able to hold water when held at a 45 degree angle. Put these aside for when it's time to assemble the water wheel.



4. <u>Assembly time, part one.</u> Start by placing the clay hub the students made in the center of the desk or table with at least a few inches of working space around it. Grab the straw halves and place them into the soft clay to create the spokes of the water wheel. Make sure the slits that were cut into the straws earlier are on the outermost edge of the wheel (e.g. not in the clay). All the slits should open towards the same direction either to the right or left. During this stage, ensure that the straws are as equidistant as possible.



- 5. Provide an additional straw to each student. Take the full-length straw, cut in half and insert one end into the other side of the hub this will serve as a test fulcrum to spin the replica waters wheels and test whether they can hold water, sand, or another material of your choice. Add glue around the straw as well.
- 6. <u>Assembly time, part two.</u> Take the cut craft sticks rectangles and the cut half-cups and glue them together. Using hot glue or tacky blue, place a small line of glue onto the 1.5 wooden pieces and place the cup on top with the curved bottom glued to the wood. Ensure that you leave space on one end so that the wood pieces can be attached to the straws later on. Let dry for about 30 minutes.



7. <u>Assembly time, part three.</u> Take the hot glue or tacky glue and open up the slits like a mouth, placing a dab of glue in each one, one at the time. Next, grab the one-inch cut craft sticks (that have the half-cups glued to them) and place them into the slits closing the straw to hold the wood in place. Do this for the next five spokes also.

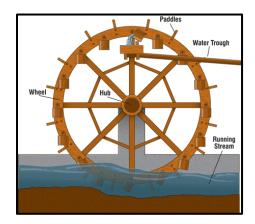


- 8. Leave the wheel to dry overnight placing in a warm, dry location.
- 9. When ready, fill a medium sized plastic container with water or sand and have the students test to see how much water or sand their model can hold. Have them make note of when the sand or water falls out. What improvements would they make to their models? Why?

Student Content

What do Water Wheels look like?

Water wheels are made in the shape of a wheel and have been around for over 2000 years. Water wheels have allowed humans to do more and different kinds of tasks. From grinding grain, to irrigating crops, and more. Water wheels have specific parts that help them function for the purposes that we need. Use the picture below to see all the different parts that make up a water wheel. Later on you will have an opportunity to build your own smaller size versions of a water wheel. After your smaller models are built, you will have an opportunity to try them out.



Understanding Water Wheels

Water wheels were built for many reasons. Some water wheels were built to make electricity. Other types of water wheels were built to send water to nearby crops where food was grown. At Jarvie Ranch, a water wheel was used and built in the nearby Green River. Look at the pictures below to see the different types of water wheels that exist today.



Modern water wheel that generates electricity

Traditional water wheel used for irrigation

Double water wheel used to irrigate gardens in the country of Syria

Below, you will see a replica of the original water wheel used at the ranch. Notice the blades or buckets that are inside the frame of the water wheel. This type of water wheel is called an undershot water wheel. It's called undershot because the water from the river moves under the wheel. Water flowing under the wheel then fills buckets that move to the top and drop water into a flume. As the flume fills with water it flows to an irrigation ditch that connects to the food garden. People at Jarvie Ranch were able to irrigate the food they were growing in the garden. This is all thanks to the water wheel.



The sign at the water wheel site at Jarvie Ranch

The water wheel replica of original at Jarvie Ranch

The irrigation channel at Jarvie Ranch

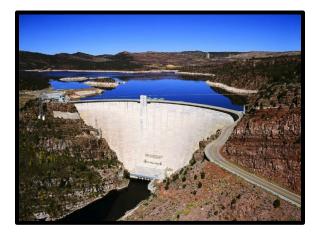
Understanding Water Wheels

Congratulations on learning a little bit about the water wheel. You are going to have a chance to build your own water wheel now. You will be given materials to use. These materials include items such as: glue, craft sticks, straws, and plastic cups. Your job is to be creative. Use the pictures of the water wheel given to you by your teacher to build your own version. Your teacher may also choose to help you build one also. There are no right or wrong ways to build your water wheel. There is a goal, though. Your goal is to build a water wheel (similar to those you see in the pictures) that is able to move.

Jarvie Ranch Visit Extension

1. Understanding Hydroelectric Power: being onsite at the Jarvie Ranch and interacting directly with the Green River is a great way to get students to think about how moving water helps us to generate electricity for our homes, cities, and towns. There are three main ideas that can be explored with students. First, is that hydropower is generated from moving water. Second, hydropower is a mostly renewable energy source. Third, that the moving water is a form of energy that we can use to generate electricity. Use the video on 'How Reservoirs Work' in the additional resources section of this lesson to introduce students to the concept.

Located upstream from the Jarvie Ranch is the Flaming Gorge Reservoir (pictured below). Depending on your travel plans, driving over the reservoir and stopped for a quick self-guided tour is a great way to expand the curiosity and learning opportunities for the students. However, even if you only visit the ranch below are some guiding questions that you can have students explore while there to get them thinking about how hydroelectric power works.



- a. Have students work in teams of two or three and experiment with the movement of the water in the Green River by doing the following:
 - i. Have students locate various objects (e.g., naturally occurring such as leaves, grass stems, rocks, etc.). Have make hypotheses about whether or not there is enough movement (force) in the water to transport an object downstream. Students can find the objects and before testing them, write down their hypotheses on small pieces of paper or index cards.
 - *ii.* Have the students make a blueprint or plan for a reservoir at Jarvie Ranch. They can use paper and pencil to sketch their plan and to imagine what would need to be changed in order for the river (at this location) to hold a reservoir. Is it ideal? What would be needed?

Lesson Assessment: Exit Tickets

Exit Tickets for Student Engagement & Self-reflection

The sample exit ticket below emphasizes general assessment of how the students experienced the lessons and then some self-reflection questions. Reponses to the questions in this exit ticket can help the teacher gather data to improve lesson delivery in the future.

| Jarvie Ranch – Architecture Exit Ticket | | | |
|---|----------|--|--|
| Question | Response | | |
| What was most confusing for | | | |
| you? | | | |
| I need more practice with | | | |
| What did you learn from the | | | |
| lesson today? | | | |
| What is one question you still | | | |
| have after the lesson today? | | | |
| Write a text message | | | |
| summary of today's lesson. | | | |
| How do you feel about your | | | |
| work today? | | | |
| What helped you understand | | | |
| the lesson today? | | | |
| How hard did you work | | | |
| today? | | | |

Other Resources

Video of the different types of water wheels or water machines from ancient times: <u>https://youtu.be/SetXqEsrvk4</u>

Brief history of the water wheel: <u>https://www.thoughtco.com/history-of-waterwheel-</u> 4077881

Technological History of water wheel: http://www.waterhistory.org/histories/waterwheels/

Uses of the water wheel: https://sciencing.com/water-mills-used-8153312.html

Poncelet Water Wheel to generate Electricity: <u>https://youtu.be/TkpRI8YWhPc</u>

Earth Buddies Overview of Water Wheels: <u>https://earthbuddies.net/water-wheels-</u> changed-whole-villages/

How reservoirs or dams work: <u>https://www.youtube.com/watch?v=ztM6tL6LtFs</u>

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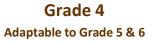
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Viollet, P. (2017). From the water wheel to turbines and hydroelectricity. Technological evolution and revolutions. Comptes Rendus Mecanique. 345. 570 – 580.

Waring, S. (2016). Early Montana farmers tap waterwheel for irrigating. Signature Montana.

John Jarvie Historic Ranch: Ecology of Brown's Park

Authored by: Joel Arvizo-Zavala



LESSON PLAN DETAILS

Time Frame:

2 hours (2 class periods at 60 minutes each)

Group Size:

• 2-3 Students.

<u>Materials:</u> See materials list located under ecology <u>Case Study</u>

<u>Life Skills:</u>

Critical thinking, literacy development, scientific inquiry, observation, logic development

Intended Learning Outcomes:

Students will understand the ways in which the environment is a complex, interconnected system.

Jarvie Ranch Ecology of Brown's Park Lesson Plan

By: Joel Arvizo-Zavala

This lesson plan is intended for fourth to sixth grade.

SUMMARY

Jarvie Ranch is nestled within an isolated mountain valley along the Green River in Daggett County, Utah. This area is a gem of ecological history even serving as the home of the Browns Park National Wildlife Refuge. This rich ecological history serves as the foundation to this lesson. Through learning about the Green River and the animals of Brown's Park students will have an opportunity to explore this ecology both in the classroom and during your visit to Jarvie Ranch.

The purpose of this lesson is to introduce students to the animals, plants, and ecology of Brown's Park; the area around Jarvie Ranch. Of particular importance is understanding species that are currently threatened or endangered, the role of water (the Green River) in the ecology of the Ranch, as well as issues of conservation and environmental change. By understanding how species become endangered, students will build their knowledge about human interactions with the environment and how ecological systems are created.

Relevant Core Standards

Utah Standards 4th Grade

Language Arts (Reading)

- Informational Text Key Ideas and Details: Explain events, procedures, ideas, or concepts in a historical, scientific, or technical text, including what happened and why, based on specific information in the text.
- 7. Informational Text Craft and Structure: Determine the meaning of general academic and domain-specific words or phrases in a text relevant to the subject area.
- Informational Text Integration of Knowledge & Ideas: Interpret information presented visually, orally, or quantitatively (e.g., in charts, graphs, diagrams, time lines, animations, or interactive elements on Web pages) and explain how the information contributes to an understanding of the text in which it appears.
- 9. Foundational Skills Phonics and Word Recognition: Know and apply grade-level phonics and word analysis skills in decoding words.
- 10. Foundational Skills Fluency: Read with sufficient accuracy and fluency to support comprehension.

Fine Arts

- 1. Create Explore and invent art-making techniques and approaches by utilizing and caring for materials, tools, and equipment in a manner that prevents danger to oneself and others when making art, and by documenting, describing, and representing regional constructed environments.
- 2. Create Collaboratively set goals and create an artwork that is meaningful and shows the intent of the makers.
- 3. Connect Create works of art that reflect community cultural traditions.

Science

- 1. Standard 3; Objective 2 Explain how the processes of weathering and erosion change and move materials that become soil.
- 2. Standard 5; Objective 1 Describe the physical characteristics of Utah's wetlands, forests, and deserts.
- 3. Standard 5; Objective 2 Describe the common plants and animals found in Utah environments and how these organisms have adapted to the environment in which they live.
- 4. Standard 5; Objective 4 Observe and record the behavior of Utah animals.

Colorado Standards & Skills 4th Grade

- 2. Social Studies; Standard 2; Geography Use several types of geographic tools to answer questions about the geography of Colorado.
 - a. Evidence Outcomes: Illustrate, using geographic tools, how places in Colorado have changed and developed over time due to human activity.
 - b. 21st Century Skills: Inquiry How does the physical location of Colorado affect its relationship with other regions of the United States and the world?
 - c. 21st Century Skills: Nature of Geography Spatial thinkers use tools to compare and contrast geographic locations.

- 3. Social Studies; Standard 2; Geography Connections within and across human and physical systems are developed.
 - a. Evidence Outcomes: Describe how the physical environment provides opportunities for and places constraints on human activities.
 - b. Analyze how people use geographic factors in creating settlements and have adapted to and modified the local physical environment.
 - c. 21st Century Skills: Inquiry How does the human activity affect the environment?
 - d. 21st Century Skills: Nature of Geography Spatial thinkers evaluate how physical features affect the development of a sense of place.
- 4. Science; Standard 2; Life Science All living things share similar characteristics; buy they also have differences that can be described and classified.
 - a. Evidence Outcomes: Use evidence to develop a scientific explanation for similarities and/or differences among different organisms (species).
 - b. Evidence Outcomes: Use evidence to develop a scientific explanation of what plants and animals need to survive.
 - c. Nature of Science: Evaluate and provide feedback on evidence used by others to justify how they classified organisms.

Wyoming Standards & Skills Elementary Grades

- 3. Social Studies; Content Standard 2.2; Culture and Cultural Diversity Identify and describe ways in which expressions of culture influence people (e.g., language, spirituality, stories, folktales, music, art and dance).
- 4. Social Studies; Content Standard 2.3; Culture and Cultural Diversity Identify and describe characteristics and contributions of local and state cultural groups in Wyoming.
- 5. Social Studies; Content Standard 4.1; Time, Continuity, and Change Describe how small changes can lead to big changes (cause and effect) (e.g., discovery of electricity).
- 6. Social Studies; Content Standard 4.3; Time, Continuity, and Change Select current events for relevance and apply understanding of cause and effect to determine how current events impact people or groups (e.g., the building of a new school means that younger students will have new classrooms to learn in or war in another country means that some children's parents will have to leave to fight).
- 7. Social Studies Content Standard 5.4; People, Places, and Environments Describe how the environment influences people in Wyoming and how we adjust to and/or change our environment in order to survive (e.g., natural resources, housing, and food).

Background for Teachers

Students will be able to:

- Identify the names and visual markings/characteristics of animals that call Brown's Park home.
- 2. Be able to identity what makes a species endangered and/or threatened and how threatened status impacts the livelihood of a species.
- Understand the idea of ecology and how the Green River is part of the ecological system of Jarvie Ranch.
- Use the activity to develop a visual model for the relationships between animas and the Brown's Park ecosystem.
- 5. Understand the unique relationship between animals, ecosystems, and indigenous peoples of the Brown's Park area (and nearby areas).

Introduction to Arts-based Scientific Observation

Arts-based scientific observation (ABSO) is a tool used by teachers to help students remain highly engaged while practicing observation skills in the scientific process. In this particular lesson, students will be introduced to the ecosystem of Brown's Park; the area surrounding Jarvie Ranch. Using photos, content within the lesson, videos, and more students will make observations about the ecosystem looking at the key components to what makes an ecosystem an ecosystem. Afterwards, students will be provided with materials to create a diorama that replicates (to the best of their ability) what they have observed to constitute the Brown's Park ecosystem. These dioramas are both artistic and scientific in nature and will provide your students with opportunities to build four primary skills:

1. Students will learn what it means to filter essential information from non-essential information by

Lesson Plan Procedure

Class One & Two

- Explore the concept of ecology and build your dioramas over the course of two class periods. You are the best judge of students' abilities and time management skills.
- Explain the highlights of local ecology and why ecology matters to their daily lives.

prioritizing the elements they include in their dioramas based on the information they glean from the lesson.

- 2. Students will gain a better understanding of perception and how what we observe can have meaning. In the case of an ecosystem, how different elements make up a living environment for plants and animals.
- 3. Students will have an opportunity to self-monitor (and with support from the teacher) reduce the impact of distractions on the student's ability to make meaning of their observations. The artistic process is great at this.
- 4. Students will develop motivation for learning. The artistic-observation process gives students a malleable structure form which to put what they learn into production.

Teacher Resource: Ecological Systems

Introduction to Ecology and Ecosystem Science

The purpose of ecosystem science (ecology) is to help us understand the ways in which various systems interact with one another and influence the trajectory of life within time and space. As such, it is important to note that ecological science serves as a foundation for our students to understand that we as humans have an inextricable connection to the plants, animals, and insects around us. By taking time to study ecology our students will develop a deep appreciation for how the natural world functions while ultimately leading to the protection and preservation of what we currently have. In this particular lesson students will learn about the ecology of rivers and use this as a stepping stone to investigating and understanding the Green River specifically.

Overview of River Ecology

It is important to note that rivers have a life of their own and in fact, it is this very idea that has captured the interest of river ecologists for decades. A river has the ability to sustain life while shifting and winding around the landscape over time. A river has the ability to change the landscape through properties of erosion and more but it is the relationship of the river to animals and plants that is of particular interest. When looking, specifically, at the Green River (found on Jarvie Ranch) it is important to see this river as an everchanging structure of the landscape not separate from the life it supports but directly integrated with it. There is a reason why human beings have built homes and communities around rivers and it is because of our direct need for water to sustain our own lives. In this lesson you will have the opportunity to teach your students about this inextricable connection. When we say water is life, there is no joke in that and we must do all that we can to understand and preserve the rivers around us.

The Green River Ecosystem

There are a number of threats to the Green River ecosystem that are important to note. First is the Flaming Gorge Reservoir located upstream on the Utah/Wyoming border. Although reservoirs have allowed human beings to store water and create hydroelectricity these systems also directly impact the ecosystem of rivers. When cold, less oxygenated water exits the bottom of the reservoir into the river below, this has dramatic effect on the river's ability to sustain life. As a result of human interventions on rivers, there are a number of fish species that are in need of conservation such as the Bluehead Sucker, the Colorado River Cutthroat Trout, Flannelmouth Sucker, Kendal Warm Springs Dace, and the Roundtail Chub (Wyoming State Action Plan, 2017). One species in particular that has been documented in the area,

the Bonytail Chub, unfortunately no longer exists in the Brown's Park Basin and is under conservation in areas of the lower Colorado River.

Why A Conservation Standpoint?

Scientists worldwide are in agreement that the earth's climate is changing due to human behavior. The landscapes and ecosystems surrounding Jarvie Ranch are no exception. As teachers, we can play a pivotal role in supporting our students in developing compassion and consciousness regarding how our behavior – and the modern systems that we depend on – impact our environment. Students will learn what it means for humans to negatively impact animal species but also learn how we can stop negative impact on animal ecosystems through the development of a conservation mindset. We anticipate that this lesson will create much fruitful inquiry and discussion between you and your students as a result.

The Beloved Greater Sage Grouse

The first animal of study in this lesson is the greater sage grouse which is found throughout the great basin and has experienced significant threats to their survival due to human influences. Currently, the animal is listed as 'near threatened' in terms of conversation status and numerous agencies are collaborating to ensure protection of the species. The greater sage grouse is an important species in three ways. One, it is a species that is sacred to many indigenous nations across the Great Basin region. Two, it is a unique species that has evolved and adapted to the great basin terrain and is thus a deep reflection of its environment. And third, studying the species has helped us to better understand how human behavior influences not only the Great Basin but also the often-delicate relationship between an animal and its natural habitat. These ideas will be explored in this lesson in greater detail with your students.

| Erosion | The process of being broken down or made smaller by wind, |
|-----------|--|
| | water, or other natural processes. |
| Grouse | A medium to large bird with a round body and feathered legs. |
| Rough | Having an uneven surface; not smooth. |
| Unique | Being the only one of its kind; unlike anything else. |
| Achieve | To be successful at doing something. |
| Thrive | To grow or develop well. |
| Ranch | A large farm where animals are kept. |
| Dynamic | A process of constant change. |
| Shallower | Something that is less deep or having little depth |
| Ecosystem | A community of plants, animals, and insects interacting together |
| | in their physical environment. |

Lesson Vocabulary

Ecology Case Study: Diorama

Students will be provided with a set of materials to brainstorm and then create a diorama that addresses some of the major ecological elements to the Brown's Park area and Jarvie Ranch. The process for the students is the following:

- 1. Provide students with materials listed in the table below
- 2. Using the additional resources section, the student handout, and other information regarding Jarvie Ranch and the Green River Ecosystem, introduce students to the ecosystem. Use vocabulary learning, direct reading of the student handout, and the supplemental videos to share more about Jarvie Ranch and it's ecosystem with your students.
- 3. Set a timer for 10 minutes to give students the ability to brainstorm major ecological elements to include in their diorama.
- 4. Set a timer for 30 minutes for student collaboration time to build their diorama.
- 5. Set a timer for 20 minutes for students to present their replica to the class. This step can occur on another day.

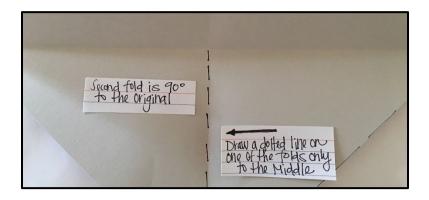
| Materials List – Case Study – Sage Grouse | | | | |
|--|---|---------------------------------|--|--|
| Item | Purpose | Quantity per Model | | |
| White Cardstock 8/5"x11" | Diorama | 1 | | |
| Regular Glue (Liquid or Stick) | Attaching items to diorama | 1 bottle or 1 stick | | |
| Tissue Paper (Green, Brown & Yellow Primarily) But various colors appreciated | Landscape for Diorama | About 3 or 4 sheets | | |
| Quick Drying Clay | Landscape for Diorama | About 4 oz. | | |
| Acrylic or Standard School Paints | Painting Details for Landscape Items | One pallet per group or student | | |
| Small cut-outs of Greater Sage Grouse | To emphasize their habitat on diorama | Two or three | | |

Step-by-Step Guide for Ecosystem Dioramas

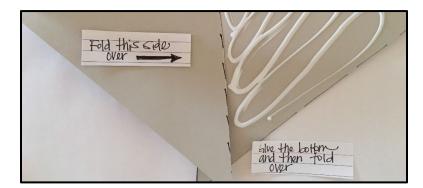
1. Pass out materials to students one-by-one starting with the white cardstock. Have the students pick a corner of the cardstock and fold inward until the corner aligns with the opposite site of the paper. This will form a triangle edge where the corner used to be. Next, draw a dotted line where the edge of the top cardstock folds meets the bottom of the cardstock fold. Using scissors, cut along the dotted line to form an equilateral triangle.



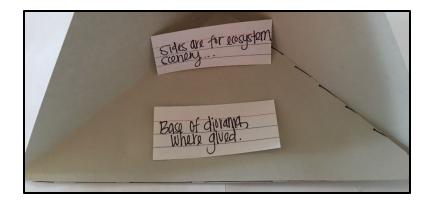
2. Open the triangle and fold again using the opposite corner as a guide meeting the other corner to form a new equilateral triangle. This will form a fold that is perpendicular to the original fold. Next, draw a dotted line on one of the fold marks form the corner to the middle where all four folds meet.



3. Using the dotted line as a guide, cut the cardstock from the edge and to the middle only. Once cut, glue the bottom triangle with school glue/glue stick and fold under the other side of the cut in order to form the base. This will serve as the frame for the diorama.



4. Once adhered, you will have a diorama with three sides that students can use to create their Brown's Park ecosystem.



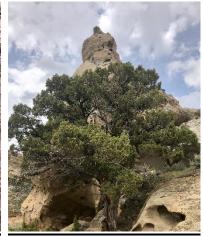
5. Using the images and captions below, have students recreate the Brown's Park and Jarvie Ranch ecosystem. Encourage students to add animals they think might also be at the park that we may not see every day. Have them draw their own Sage Grouse to add to their diorama as well.



The Green River: The banks and flow of the river at Jarvie Ranch



Cactus Plants: Arid conditions that can occur in the ecosystem Rock Formation: Geological history of the site



Juniper Tree in Rock Formation: Flowers at Jarvie Ranch: Attracts pollinators, native species



Irrigation Ditch on the Ranch:

Student Content

What is an Ecosystem and why do Ecosystems Matter?

What is an ecosystem? An ecosystems is a scientific word used to describe where plants, animals, and insects live. It is also a word that helps us understand how living things connect to one another. Ecosystems are important because they are the homes of plants, animals, and insects. We need ecosystems that are healthy in order to make sure that living things can thrive. Imagine the place where you live. What if it didn't have electricity? What if there wasn't water? Would you be able to thrive? More than likely not. Ecosystems need sunshine, water, shelter, food and more for all living things to do their best. When you visit Jarvie Ranch, you will see an ecosystem. Take time to notice the different plants. Stay quiet so you can see animals. Where is there water? How much sunshine is there? Are there hiding places or shelter for animals? Be careful though, something might be living inside! These are all parts of an ecosystem. And when we understand these parts, we can better understand plants and animals.



Wetlands Ecosystem in Browns Park





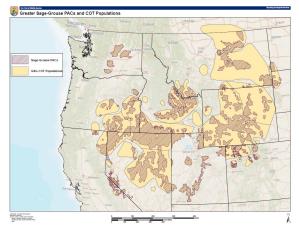
Sagebrush Steppe in Utah

Getting to Know the Sage Grouse

When you visit Jarvie Ranch you might see a Sage Grouse. The Sage Grouse is a bird that has lived in the area for a long time. It has beautiful feathers and resembles a turkey, but much smaller. It is called a Sage Grouse because it lives among plants known as sagebrush. There are a few fun facts about the Sage Grouse that you should know. First, the male has feathers much different than the females. The males have a unique dance that shows off their feathers. The male Sage Grouse also makes a unique sound. But how? There are pockets of skin on the male bird's chest. These pockets are filled with air to make the sound. Lastly, the home of the Sage Grouse is called a lek. Scientists use the leks to figure out how many Sage Grouse might be living in that area.



The Greater Sage Grouse in its Habitat



Map of Greater Sage Grouse Groupings

The Green River

The Green River is an important river to Jarvie Ranch. It winds its way from the Wind River Mountains in Wyoming. Then the river shows up in parts of Utah where Jarvie Ranch is located. The Green River is also found going through the state of Colorado. Finally, the river joins the larger Colorado River just south of Moab, Utah. When you look at the map, you will see how the river flows back and forth. Rivers are important for many reasons but you will learn about two here. First, rivers are dynamic. This means that they change shape over time. During part of the year, they are deep such as during spring. During another part of the year, they are shallower such as during autumn. Rivers also have the ability to change direction over time. Although, this can take many years to achieve. The second important topic about rivers is erosion. As rivers move, they produce the force that we call erosion. Over time, the water cuts away at soil and rocks underneath its surface. This can cause changes to the riverbed such as smoother rocks or sandy soil. These are important ideas to have in mind for when you visit Jarvie Ranch. When you are there, take a good look at the river. Notice how wide and how deep the river is. If you can see the rocks underneath the water, are they rough or are they smooth? Make sure you take a notebook and pencil when you visit the ranch. You can draw what you see in the river and share with your classmates.



Jarvie Ranch Visit Extension

- 2. Watercolor of Jarvie Ranch and Brown's Park Ecosystems: The area surrounding Jarvie Ranch lends itself to inspiring students to think critically and to observe keenly. From the river, the Jarvie store, and more students have an opportunity to really take in all that this state historical site has to offer. Utilizing watercolor, brushes, pencils, and paper students can re-create elements of the Jarvie Ranch that speak most to them. After passing out materials for the lesson (see list below), have the students create groups of three or four. Each group can then find a quiet spot to do their paintings. Additionally, the reflection questions below will help spark students' interest in the activity and get them focused on the imagery around them.
 - a. *What are some of the plants that you notice*? Which ones do you want to including in your painting? Why?
 - b. *If you're quiet enough, you might hear or see animals.* If you do, what kind of animals do you notice? How would you draw and paint them on your paper?
 - c. *What do you notice about the river at Jarvie Ranch?* What colors do you see in the river? Can you see anything reflected on the surface of the water? How would you draw and paint the river on your own paper?
 - d. *Notice the mountains and the sky.* What colors do you see? How would you describe the shape of the clouds? What shapes do you see in the mountains?

| Materials List – Jarvie Ranch Water Color Project | | | | |
|---|-----------------------------------|----------------------|--|--|
| ltem | Purpose | Quantity per Student | | |
| White Cardstock 8/5"x11" | Medium for Water coloring | 1 | | |
| Watercolor Palette | Painting Scenery | 1 palette | | |
| Pencil #2 | Outlining images and/or landscape | 1 | | |
| Watercolor brushes | Painting Scenery | 2 | | |
| Reusable cups | To hold water | 1 | | |
| Clean Water | For paints | To Fill Cup | | |

3. **Traditional Ecological Knowledge and the Greater Sage Grouse:** when students and educators come o Jarvie Ranch there is a unique opportunity to have students understand the relationship that all parts of the ecosystem have with one another. This holistic perspective that takes into account the knowledge of tribal and indigenous communities is referred to as traditional ecological knowledge (TEK). This traditional knowledge is important because it helps us understand how every living thing is interconnected and if one thing in the ecosystem changes so do others. When

students are onsite at Jarvie Ranch, they can do a field study of the ranch and surrounding areas. Students should be able to identify parts of the ecosystem that may be beneficial to the Greater Sage Grouse and parts that are not beneficial. Below are three living things that students can search for while at the ranch. The first is Big Sagebrush which is an essential plant to maintain a healthy ecosystem for the Sage Grouse. The next photo is a secondary source of food for the Sage Grouse, burclover and should be really easy for students to find and identify. Last, is a picture of one of many butterflies that can be found in the great basin area of the western United States. Students can use their field study to see how many different types of butterflies (and moths) they are able to find.

Two important elements to traditional ecological knowledge include using both observations and experiences to answer questions about the natural world. The purpose of this lesson extension is for students to start building connections to how every living thing (plants, animals, insects, etc.) help or hinder the survival of a species. Starting students on their field study requires some questions. The questions that students are going to study are: Are there enough beneficial species for the Greater Sage Grouse to survive on or near Jarvie Ranch? And if something is missing, what might happen to the Greater Sage Grouse? These questions can be provided to students on an index card before they head out in groups of five or six for their field study. In this lesson extension students should do the following:

- a. Identify the number of each plant or insect they are able to find and where they found it.
- b. Write down their observations on a card, piece of paper, or notebook.
- c. Bring back their notes to the Ranch house lawn and share with their peers and field guides.
- d. Students will then state based on the evidence they gathered whether or not the Sage Grouse could survive at Jarvie Ranch.



Big Sagebrush Artemisia tridentata

Burclover Medicago polymorpha

Pine White Butterfly Neophasia menapia

4. Assessing the Quality of the Green River: when onsite at the Jarvie Ranch, it is impossible to not notice the Green River in all its glory. A foundational test in ecosystem science is the assessment of water quality. Luckily, we have many different ways for both youth and adult scientists to understand the quality of the water that comes in and out of an environment. The use of litmus paper to test the pH of a water source is a wonderful learning opportunity for students. But why does pH matter?

pH of water is important because it is connected to two important variables. First is about solubility or how much of an element (e.g. oxygen) can be dissolved in the water. Second is about availability or how much of a nutrient (e.g. nitrogen) can be used by living organizations that call the body of water home. pH's greater than 7 are considered acidic and pH's less than seven are considered alkaline. For many scientists, an optimum pH for river water is around 7.4 and extremes in pH can make the river less capable of supporting life. In this lesson extension students should do the following:

- a. Work in pairs to test three available water sources onsite at the Ranch. One of these water sources must be the river. The other sources can be ponds, pools, rainwater, or potable water that's available onsite.
- b. Utilize the reusable cups to safely collect water with adult supervision. It might be interesting for the students to collect water from the Green River at a few different landing points to see if there are any differences.
- c. Carefully dip the litmus paper into the cups fills with water samples and then accurately read the pH according the scale and record the findings. Finds should be recorded in three areas:
 - *i.* Location of Sample (e.g. pool of water by the house, or river's edge by water wheel).
 - *ii.* General description of water turbidity (e.g. color of water, anything floating in it, level of transparency, etc.)
 - *iii.* The best possible estimate of pH as recorded for each sample using the litmus paper.
 - iv. Which water sources are closest to the ideal pH of 7.4.
- **d.** Come back as a group and discuss findings. Students should be given an opportunity to ask questions and to share any similarities or differences that they notice from other groups results.

| Materials List – Jarvie Ranch pH Testing | | | |
|--|-----------------------------|----------------------|--|
| Item | Purpose | Quantity per Student | |
| Index Card or Cut Paper | Record Findings | 1 | |
| Litmus paper | To Test pH of Water Sources | 3 | |
| Pencil #2 | Writing | 1 | |
| Reusable cups | To hold water from sources | 3 | |
| Hand Sanitizer | To clean hands after | N/A | |
| | experiment | | |

Lesson Assessment: Exit Tickets

Exit Tickets for Student Engagement & Self-reflection

The sample exit ticket below emphasizes general assessment of how the students experienced the lessons and then some self-reflection questions. Reponses to the questions in this exit ticket can help the teacher gather data to improve lesson delivery in the future.

| Jarvie Ranch – Ecology Lesson Exit Ticket | | |
|---|----------|--|
| Question | Response | |
| What was most confusing for | | |
| you? | | |
| I need more practice with | | |
| What did you learn from the | | |
| lesson today? | | |
| What is one question you still | | |
| have after the lesson today? | | |
| Write a text message | | |
| summary of today's lesson. | | |
| How do you feel about your | | |
| work today? | | |
| What helped you understand | | |
| the lesson today? | | |
| How hard did you work | | |
| today? | | |

Other Resources

Sage Grouse Initiative: <u>https://www.sagegrouseinitiative.com/sagebrush-</u> community/the-bird/

Prairie Chicken Dancers (Indigenous Peoples and the Sage Grouse): https://www.wyomingpublicmedia.org/post/audio-postcard-prairie-chicken-dancersstrut-their-stuff-northern-arapaho-powwow#stream/0

Types of Erosion: https://www.youtube.com/watch?v=QV2HOfcCJaM

Erosion, Weathering, and Decomposition: https://www.youtube.com/watch?v=8ISfVu8Y-GY

Sagebrush Ecosystem Curriculum: https://www.fws.gov/greatersagegrouse/education.php

What is Observational Learning: <u>https://examples.yourdictionary.com/examples-of-observational-learning.html</u>

Native Knowledge: <u>https://e360.yale.edu/features/native-knowledge-what-</u> ecologists-are-learning-from-indigenous-people

Traditional Ecological Knowledge: https://www.nps.gov/subjects/tek/learning.htm

Indigenous Knowledge & the Sage Grouse:

https://www.bistatesagegrouse.com/general/page/finding-common-groundwestern-science-meets-indigenous-knowledge-sage-grouse-summit

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John Jarvie Historic Ranch: Geology of Brown's Park

Authored by: Kylee Ehmann



Grade 4-5

LESSON PLAN DETAILS

Time Frame:

One 45 Minute class per activity

Group Size:

- Activity 1: Entire Classroom
- Activity 2: Groups of 2-3
- Activity 3: Groups of 2-3

Materials:

Activity 1: Classroom Chairs Activity 2: Printed Out Handouts Activity 3: Shoe boxes, dirt/sand, small bowl, marbles, spoons, popsicle sticks, plastic trees, small animals.

Life Skills:

Critical thinking skills and visual analysis

Intended Learning Outcomes:

Students will see geology as part of a dynamic system with which humans interact. z

Jarvie Ranch Ecology of Brown's Park Lesson Plan

By: Kylee Ehmann

This lesson plan is intended for fourth and fifth grades. See comments throughout lesson plan for ideas on how to adjust this material for lower or higher grades.

SUMMARY

This lesson plan is intended to help students recognize the geology that exists around them and to acknowledge the relationships that exist between people and the land.

Through a three-part lesson plan, students will differentiate between a rock v. mineral, define the rock cycle, identify the main geological forms and types of rock in Brown's Park and in their own neighborhoods, as well as explore the history of mining in the region and in Utah at large.

Part one of this lesson plan focuses on the geology of Brown's Park (the region that Jarvie Ranch rests in) and exploring how students can use their knowledge of rocks to identify rocks out in nature. Part three focuses on how humans interact and use their environment.

The first two sections are tied to fifth grade science standards implemented in the 2020-2021 school year. The final section is specifically tied to the fourth grade social studies standards.

Relevant Core Standards

•

Utah Social Studies Standards 4th Grade

Standard 1: Students will understand the relationship between the physical geography in Utah and human life.

Objective 1: Classify major physical geographic attributes of Utah.

• Identify Utah's latitude, longitude, hemisphere, climate, natural resources, landforms, and regions using a variety of geographic tools

• Examine the forces at work in creating the physical geography of Utah (e.g. erosion, seismic activity, climate change)

Objective 2: Analyze how physical geography affects human life in Utah.

• Identify population concentrations in the state of infer casual relationships between

population and physical geography \circ $\,$ Classify the distribution and use of natural resources.

• Compare the development of industry and business in Utah as it relates to its physical geography (e.g. mining, oil, agriculture, tourism)

• Examine the interactions between physical geography and public health and safety

(e.g. inversions, earthquakes, flooding, fire)

Objective 3: Analyze how human actions modify the physical environment.

• Describe how and why humans have changed the physical environment of Utah to meet their needs (e.g. reservoirs, irrigation, climate, transportation systems and cities)

• Explain viewpoints regarding environmental issues (e.g. species protection, land use, pollution controls, mass transit, water rights, trust lands).

• Outline the development of recreation in Utah since 1900 (e.g. sports, tourism, state, and national parks)

• Make data-supported predictions about the future needs of Utahns and the natural resources that will be necessary to meet those needs

Social Studies language students should know and use: natural resources, landforms, regions, erosion, seismic activity, tourism, communication, transportation, archaeology, artifacts, excavations

Colorado Social Studies Standards

History Explain the role of individuals, diverse cultural groups, and ideas in the historical development of Colorado; organize and sequence events in Colorado history in chronological order; recognize the connections between important Colorado events and important events in the history of the United States. **(4th Grade):** Using map keys, symbols, and legends to show how Colorado cities, towns, and neighborhoods were settled, and how they have developed and changed over time; exploring the connections between Colorado's physical resources (mountains, plains) and why diverse populations have chosen to live here. **(5th Grade):** Use

various geographic tools and sources to answer questions about the geography of the United States; Causes and consequences of movement).

Geography (4th Grade): Use maps to ask and answer questions about the geography of Colorado and to understand the interactions between humans and their environment. (Describing unique products and services provided in Colorado; exploring the connections between Colorado's physical resources and what is produced and provided in the state.)

Wyoming Social Standards

Content Strand 5: People, Places, and Environments – Students apply their knowledge of the geographic themes (location, place, movement, region, and human/environment interactions) and skills to demonstrate an understanding of interrelationships among people, places, and environment.

Utah Science Standards 5th Grade

Strand 5.1 Characteristics and Interactions of Earth's Systems: Earth's major systems are the geosphere (solid and molten rock, soil, and sediments), the hydrosphere (water and ice), the atmosphere (air), and the biosphere (living things, including humans). Within these systems, the location of Earth's land and water can be described. Also, these systems interact in multiple ways. Weathering and erosion are examples of interactions between Earth's systems. Some interactions cause landslides, earthquakes, and volcanic eruptions that impact humans and other organisms. Humans cannot eliminate natural hazards, but solutions can be designed to reduce their impact.

Standard 5.1.1: Analyze and interpret data to describe patterns of Earth's features.

Emphasize most earthquakes and volcanoes occur in bands that are often along the boundaries between continents and oceans while major mountain chains may be found inside continents or near their edges. Examples of data could include maps showing locations of mountains on continents and the ocean floor or the locations of volcanoes and earthquakes. (ESS2.B)

Standard 5.1.2: Use mathematics and computational thinking to compare the quantity of saltwater and freshwater in various reservoirs to provide evidence for the distribution of water on Earth. Emphasize reservoirs such as oceans, lakes, rivers, glaciers, groundwater, and polar ice caps. Examples of using mathematics and computational thinking could include measuring, estimating, graphing, or finding percentages of quantities. (ESS2.C)

Standard 5.1.3: Ask questions to plan and carry out investigations that provide evidence for the effects of weathering and the rate of erosion on the geosphere. Emphasize weathering and erosion by water, ice, wind, gravity, or vegetation. Examples could include observing the effects of cycles of freezing and thawing of water on rock or changing the slope in the downhill movement of water. (ESS2.A, ESS2.E)

Standard 5.1.4: Develop a model to describe interactions between Earth's systems including the geosphere, biosphere, hydrosphere, and/or atmosphere. Emphasize interactions between only two systems at a time. Examples could include the influence of a rainstorm in a desert, waves on a shoreline, or mountains on clouds. (ESS2.A)

Standard 5.1.5: Design solutions to reduce the effects of naturally occurring events that impact humans. Define the problem, identify criteria and constraints, develop possible solutions using models, analyze data from testing solutions, and propose modifications for optimizing a solution. Emphasize that humans cannot eliminate natural

hazards, but they can take steps to reduce their impacts. Examples of events could include landslides, earthquakes, tsunamis, blizzards, or volcanic eruptions. (ESS3.B, ETS1.A, ETS1.B, ETS1.C)

Colorado Science Standards

Earth and Space Science: Understand how Earth has changed over time, and how energy and fuels that humans use are derived from natural sources and their uses effect the environment in multiple ways. **(4**th

Grade): Identifying evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time; Obtaining and combining information to describe that energy and fuels are derived from natural resources, and their uses affect the environment). **(5th Grade):** Earth's surface changes constantly through a variety of processes and forces.

Wyoming Science Standards

4-ESS1-1: Identify evidence from patterns in rock formations and fossils in rock layers to support an explanation for changes in a landscape over time.

4-ESS2-1: Make observations and/or measurements to provide evidence of the effects of weathering or the rate of erosion by water, ice, wind, or vegetation.

4-ESS2-2: Analyze and interpret data from maps to describe patterns of Earth's features.

4-ESS3-1: Obtain and combine information to describe that energy and fuels are derived from renewable and non-renewable resources and how their sues effect the environment.

4-ESS3-2: Generate and compare multiple solutions to reduce the impacts of natural Earth processes on humans.

3-5-ETS102: Generate and compare multiple possible solutions to a problem based on how well each is likely to meet the criteria and constraints of the problem.

5-ESS3-1: Obtain and combine information about ways individual communities use science ideas to conserve Earth's resources and environment.

Background for Teachers

Prior to teaching this lesson, teachers should know the rock cycle, the general geography of the Brown's Park area, the general geography of the area in which they live, and how people have historically interacted with the geology of the Brown's Park area.

Teachers should impart to their students the idea that landscapes are dynamic and slowly changing over time thanks to weathering, erosion, earthquakes, and human involvement. Human involvement can include moving rocks to create roads and tunnels and mining. Not all human involvement with the land is a negative thing. Teachers should emphasize sustainable land management and mining practices when discussing human interactions with the environment.

Included in this lesson plans are three distinct activities that can be used in conjunction or implemented separately based on classrooms needs.

For Students

Students will need to be familiar with the idea that there are three main kinds of rocks and that rocks are different than minerals.

Students should be able to locate Brown's Park on a map and be able to pinpoint Jarvie Ranch's location within it.

The goal of this lesson plan is for students to identify that a landscape is a dynamic environment that changes thanks to outside pressures. For fourth graders, these outside pressures will focus on the impact of human use of a landscape's geography. For fifth graders, these outside pressures will focus on more natural forces, such as the rock cycle itself and weathering and erosion.

Lesson Plan Procedure

Day One

- Teachers should walk students through the rock cycle. Ensure all students understand the primary parts of the rock cycle.
- Play rock cycle musical chairs game.

Day Two

- Finish all prompts from the Booklet Activity.
- Have students present their findings.

Day Three

- Human interaction activity.
- Begin discussion around the impacts of humans on the geological landscape via mining.

Teacher Resource: The Geology of Brown's Park

John Jarvie Historical Ranch sits in the Brown's Park region, a stretch of land that stretches between Wyoming, western Colorado, and eastern Utah.

Like many areas in Utah, the Brown's Park formation has a lot of sedimentary rocks. This is because much of the land that is now known as Utah was once covered by large tracts of water. As rocks are worn down by weathering and erosion, they are turned into geological detritus (e.g. gravel, sand, slit). This geological detritus can combine with the biological detritus such as dead aquatic organisms (e.g. shells, bones, feces). This collection of detritus is cemented together at the base of oceans, lakes, or other bodies of water. Thanks to geological forces such as earthquakes and tectonic movement and to these bodies of water drying up, we are able to see these layers over time.

This area is constantly changing, even if it is changing slowly. Like everywhere on our planet, the earth and geology are dynamic and part of an ever-evolving world. Humans are embedded within this changing landscape. It is important to note that even as we change ourselves to suit these geological features, we change these geological features to suit ourselves. It is important to note the ways in which this change in the geology can effect non-humans in the world around ourselves.

| Key Vocabulary | | |
|------------------|--|--|
| Sedimentary Rock | (of rock) that has formed from sediment deposited by water or air and is compacted by time and gravity (sandstone). | |
| Igneous Rock | (of rock) that has formed from sediment deposited by water or air. (obsidian) | |
| Metamorphic Rock | denoting or relating to rock that has undergone transformation by heat, pressure, or other natural agencies, e.g. in the folding of strata or the nearby intrusion of igneous rocks. (granite) | |
| Rock Cycle | an idealized cycle of processes undergone by rocks in the earth's crust, involving igneous intrusion, uplift, erosion, transportation, deposition as sedimentary rock, metamorphism, re-melting, and further igneous intrusion. | |
| Erosion | The transportation of bits of rock and minerals worn down by weathering to a different location to form new rock. | |
| Weathering | The break down/dissolving of rocks and minerals on the surface of the earth (water, ice, acids, salts, plants, animals, temperature changes can all work in the weathering process) | |

First Activity: Rocks & the Rock Cycle

Rocks v. Minerals

What Is A Rock?

Step 1: Have your students define what a rock is.

• At the board, write down the word rock and ask your students to give a definition of a rock. If your students are struggling, ask them to name some characteristics of rocks (i.e. hardness, found outside, naturally occurring, etc.).

Step 2: Give your student the official definition of rocks and show how their understandings of rocks tie into the technical definition of what a rock is.

• Merriam-Webster Dictionary Definition: *consolidated or unconsolidated solid mineral matter*. In other terms rocks are made up of minerals, other rocks, and organic remains pushed together into a new form.

• Additionally, rocks often lack the luster and sheen that minerals have.

Step 3: Show pictures of rocks to your classroom.

• You can use images you find online (the Wikipedia page for minerals has a good collection, or you can use the images after the "compare and contrast" worksheet located at the end of this lesson plan.

What Is A Mineral?

Step 1: Have your students define what a mineral is.

• At the board, write down the word rock and ask your students to give a definition of a mineral. If your students are struggling, ask them to name some characteristics of minerals (i.e. shiny, hard, etc.).

Step 2: Give your student the official definition of minerals and show how their understandings of minerals tie into the technical definition of what a rock is.

• Merriam-Webster Dictionary Definition: *any of various naturally occurring homogenous substances obtained (usually) from the ground.* In other words, minerals are a solid mass of a single element or compound. They are naturally occurring, completely inorganic, solid at room temperature (with the exception of mercury), have an ordered internal structure that is the same, has a definite chemical composition that is the same everywhere that that mineral occurs.

Step 3: Show pictures of minerals to your classroom. (You can use images you find online (the Wikipedia page for minerals has a good collection, or you can use the images after the "<u>compare and contrast</u>" worksheet located at the end of this lesson plan)

Note: rocks and minerals are a prominent feature of the popular video game Minecraft. If your student's first reaction or knowledge of rocks and minerals is to mention Minecraft, encourage your students to use the knowledge from the video game (that minerals are different than rocks, that they are often part of a rock, etc.) to start a conversation about real world rocks and minerals.

For example: the emerald is a kind of "ore" found in Minecraft. It is embedded into rocks, but it itself is a single entity. Meanwhile, the rock "granite" is found in Minecraft. It is not found in other rocks, as it is its own rock.



Help your students see that these video game features have a corresponding relation in the real world. Not all of your students may be familiar with the game, so only be productive in helping some students understand the differences.

Compare & Contrast

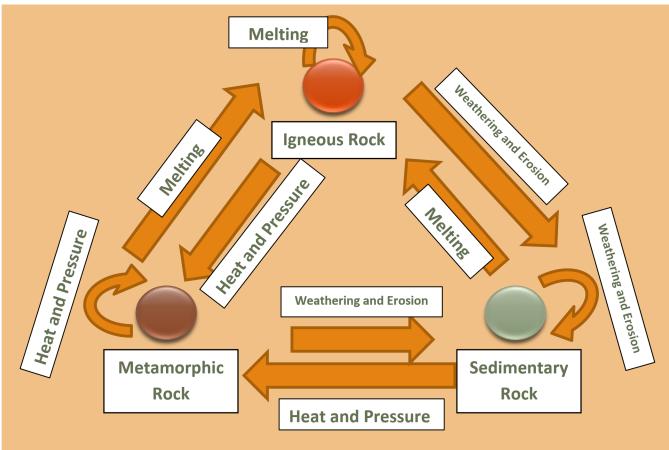
Once you have covered what the differences are between the rocks and minerals, give your students the <u>first worksheet</u> located at the end of this lesson plan. Students can work together or in groups while completing this worksheet.

Rock Cycle

What is the Rock Cycle?

Although rocks seem to last forever, they are always changing thanks to the rock cycle. Rocks exist in a state of slow but constant change.

Rocks can be worn down by wind, water, and ice (weathering and erosion), they can be pushed deep into the earth by the moving plate tectonics and melted by magma, or they can be changed by the pressure of the earth. All rocks move through this circle, though not in any strict order. For example, a rock can be an igneous rock formed from a volcanic eruption, be eroded and then have that detritus cemented into a sedimentary rock, and then a sedimentary rock can be forced under the earth and forced through pressure to become a metamorphic rock. However, the rock cycle can also work the following way: an igneous rock can melt in magma and then cool to become a new igneous rock. A sedimentary rock can be eroded and then reformed into a different sedimentary rock. A metamorphic rock can erode, become a sedimentary rock, which can then be turned into a metamorphic rock, which can become a sedimentary rock again, which can then finally become an igneous rock.



Igneous

Igneous rocks are formed from magma. Igneous rocks are formed when rocks cool inside the earth's surface or when it hits air or water on the outside of the earth's surface. They can become visible through tectonic plate movements moving these rocks to the earth's surface and by cooling around volcanoes and hot spots.

All rocks, including other igneous rocks, can be melted by magma and then cooled. All rocks can become new igneous rocks.

Metamorphic

Metamorphic rocks are formed when a rock is forced under the earth by the movement of tectonic plates. When these rocks are under the earth, they are faced with intense heat and

pressure that changes the rocks into a different rock. Metamorphic rocks make up most of the earth's crust. They become visible when the movement of tectonic plates and erosion force them up beyond the earth's surface.

All rocks, including other metamorphic rocks, can be forced under the earth and changed through heat and pressure. All rocks can become new metamorphic rocks.

Sedimentary

Sedimentary rocks are formed through weathering and erosion. Water, ice, wind, and other natural forces break down rocks into little particles. Organic matter (e.g. seashells, mollusks, bones, feces) can also be broken down to particles, which are then cemented together through the pressure of more layers above it. Because it forms in layers, and these layers don't get as hot as metamorphic and igneous, you are most likely to find fossils in sedimentary rocks.

All rocks, including other sedimentary rocks, can be broken down over time through weathering and erosion. All rocks can become new sedimentary rocks.

Draw the Rock Cycle

Step 1: Project an image of the rock cycle for your students to see. Alternatively, pass out an image with the rock cycle on it. You can use the image provided above or an image you find on the internet.

Step 2: Have your students take out a paper and ask them to copy the rock cycle. They can use crayons, markers, colored pencils, pens, whatever they are most comfortable with.

Step 3: Have your students get into pairs. Have each student explain how the rock cycle works to one another. Remind them that rocks are in a constant state of change and that any rock can transform into any rock given the right conditions.

SUGGESTIONS FOR ROCKS AND MINERALS WITH OLDER STUDENTS:

• HAVE YOUR STUDENTS RESEARCH AND IDENTIFY THE DIFFERENCE BWETEEN ROCKS AND MINERALS ON THEIR OWN.

• HAVE EACH STUDENT/GROUP DO A PRESENTATION ON A ROCK OR A MINERAL AND HOW IT IS FORMED.

Rock Cycle Musical Chairs

Once you have covered the differences between the three main types of rock, it is time to quiz your students on the different kinds.

Materials: Three different colors of stickers.

Step 1: Have your students move their chairs into a circle.

Step 2: Divide your students into three groups, roughly of equal size. These three groups will represent each type of rock.

Step 3: Hand each of the groups a different color of sticker, one per student. For example, all of the students in the igneous category will get a red a sticker, sedimentary will get a brown sticker, and metamorphic will get a green sticker.

Step 4: Have all students sitting in a chair. One per person. Chairs will be removed after the game starts.

Step 5: Randomly read one of the following statements about one of the kinds of rocks. For example, "This is the kind of rock you are most likely to find fossils in." This will refer to sedimentary rocks. All students in the sedimentary rock groups should stand up.

Step 6: Remove one of the chairs. Tell the students who are standing that when you count to 3, they must move to a new chair. Only the students who are part of the group mentioned in the rock statement should be moving.

Step 7: Whomever doesn't get a chair is out. If a student stood up and they were not part of the group that was called, they are out. If a student does not stand up with the rest of their group, they are out.

Step 8: Repeat reading the categories randomly until you have three or two children left. If all three children are of different rock categories, play normal musical chairs. If two or three of the children have the same category, continue calling out rock statements.

Step 9: When you reach the final two students, you can finish by playing a normal musical chairs game or by having students compete to see who can answer the most questions about rocks and the rock cycle.

Rock Statements for Rock Cycle Musical Chairs

Igneous Rocks

- 1. This type of rock is formed when magma cools down and becomes solid.
- 2. This type of rock begins to form when rocks are pushed deep, deep down into the earth's surface and begin to melt.
- 3. Obsidian is a kind of black, shiny, smooth kind of rock that is formed from lava flows. What kind of rock is obsidian?
- 4. The name of this rock means "of fire" because it is formed from magma.

- 5. Because so much of the ocean's crust is pushed into and out of the inside of the earth, most of the oceanic crust is made out of what kind of rock?
- 6. Granite is formed from the slow cooling and crystallization of magma under the earth's surface. What kind of rock is granite?
- 7. Only the minerals that are already found in magma can make this kind of rock.
- 8. This kind of rock is found most often around hot spots, thin portions of the earth's crust that volcanoes and magma can pour through.
- 9. Pumice is a kind of rock formed when magma is cooled and puffed up with gas bubbles. What kind of rock is pumice?
- 10. Because this kind of rock is formed from magma, there are no fossils found in it.

Sedimentary Rocks

- 1. This is the kind of rock you are most likely to find fossils in.
- 2. The name of this rock refers to the fact that it is made of little particles that have settled and cemented into one place.
- 3. This kind of rock gets its start when weathering and erosion breaks down sedimentary, igneous, and metamorphic rocks.
- 4. Sandstone is created when layers of sand accumulate in one area and then is compacted together by the pressure of deposits above it. What kind of rock is sandstone?
- 5. What kind of rock has visible, straight and flat layers in it?
- 6. Limestone is a kind of rock that is created from the rocks and the skeletal fragments of coral, seashells, mollusks, and single-celled organisms that is compacted together. What kind of rock is limestone?
- 7. The straight and flat layers found in this kind of rock are called strata.
- 8. This kind of rock is commonly found at the bottom of lakes after layers of sediments have been compacted over the years.
- 9. This kind of rock makes up most of the material in the arches in Arches National Park.
- 10. Because this kind of rock doesn't do well under intense heat and pressure, it is usually not found deep within the earth's crust. It is typically only found on the earth's surface.

Metamorphic Rocks

- 1. The name of this rock comes from a word that means "change in form."
- 2. This kind of rock is formed by deep pressure and heat under the earth's surface. This heat and pressure are not hot enough to completely melt the rock.
- 3. Marble is formed when sedimentary rocks are forced under the earth and put under intense heat and pressure. What kind of rock is marble?
- 4. Because this kind of rock does well under heat and pressure, it makes up a large part of the earth's crust.
- 5. When two tectonic plates collide together, they produce intense heat without magma called friction. The extreme heat of these movement causes what kind of rock?

- 6. This kind of rock is only formed underneath the earth's surface. It cannot form above ground.
- 7. These kinds of rocks often have visible wavy and warped lines called "bands."
- 8. Gneiss is a kind of rock formed when igneous or sedimentary rocks are forced underground and face high pressure and heat.
- 9. We often find this kind of rock in mountain ranges. Tectonic plates moving together bring these rocks up into mountain ranges, and weathering and erosion help uncover these rocks that are usually only found underground.
- 10. Diamonds are created when carbon faces intense heat and pressure. What kind of rock is most likely to have diamonds in it?

General

- 1. This kind of rock can become sedimentary rock through weathering and erosion.
- 2. This kind of rock can become igneous rock if it melts in magma.
- 3. This kind of rock can become metamorphic rock if it faces intense heat and pressure.
- 4. This kind of rock will change over time.
- 5. This kind of rock can be broken down and changed due to water.
- 6. These two types of rocks can form above the earth's crust.
- 7. These two types of rocks can form below the earth's crust.
- 8. These rocks form thanks to the movements of the earth's crust and the heat within the earth.
- 9. This kind of rock will never change over time. Whoever stands up at this is out.

Second Activity: Geology of Brown's Park

The goal of this section is to have students recognize that they are interacting with geology on a daily basis, and to use the area of Brown's Park as a starting point to begin observing the geology that they can easily see in the area around themselves.

Materials: Images (located at end of this lesson plan). Local Geology Worksheet. Rocks for your students to study (if doing the Geology Worksheet indoors).

Step 1: Ask your students to gather in groups of 2-3. Your students will be making observations about some rock formations near Jarvie Ranch.

Step 2: Show your students images of rock formations near the Green River and Jarvie Ranch (<u>located at the end of this lesson plan</u>).

Step 3: Have your students write down 2-3 observations about the rocks they see. What kind of rock do they think it is made out of?

After students share their observations and inferences, share the facts of the geology of Brown's Park and ask your students to compare what they observed and what they inferred to what geologists have to say about the area. (See un-bolded text below).

The John Jarvie Historical Ranch Site sits in a tract of land known as "Brown's Park." Like much of the earth's land surface, the most prominent geological form in the area is sedimentary rock. The detritus that makes up much of this sandstone comes from sediment from the near Uintah mountain range. The detritus is made up of other sandstone, metamorphic rock from within the nearby mountain range, and the remains of volcanic conglomerate originating from widespread volcanic activity in what would become the western United States during the Miocene era (23.03-5.337 million years ago). The area has long been undergoing slow rearranging and erosion of these rocks since it was formed.

And this landscape is still changing thanks primarily to wind and water. Sandstone is particularly prone to erosion. Thanks to the fact that it is made of compressed sand, mud, and the smaller particles from other rocks, it is particularly susceptible to wind and erosion. The spectacular formations sandstone can form (arches, caves, etc.) are caused because once erosion takes away some of a rock, the rest of the rock rests heavily on what remains. This increased pressure binds the remaining particles together. Even as it solidifies, it is still eroded by the pressures of the wind, rain, ice, snow, and the water of the Green River.

Much of the sandstone in the Jarvie Ranch area is tan-light red. Sandstone is often light in color because it is composed of other light-colored materials. Tan/yellowish sandstone indicates that the material is made up of a blend of material like clear quartz and the compacted sand. Sandstone can be other colors depending on the chemical makeup of the

soil. The reddish tint to the sandstone of Brown's Park lets us know that the chemical compound iron oxide is in the particulates that made the materials.

If your students' inferences do not align with what they see in this activity (for instance, if they say the main rock type that they see is metamorphic instead of sedimentary), remind them that being wrong and learning from mistakes is part of the scientific process. As long as they can work to accept new knowledge, they are engaging with the scientific process.

Step 4: Hand your student groups the <u>Local Geology</u> worksheet at the end of the page. One per group. This activity can be done inside or outside depending on your classroom resources and time constraints.

Step 5 (Indoors): Give each group a rock (rocks can be either ordered online or gathered outside independently).

Step 6 (Indoors): Have your student groups study the rock you have given them and discuss what they see. What kind of rock is it? What are the characteristics of each rock? Where would this kind of rock be found? Do they think there is similar rocks near Jarvie Ranch? Why or why not?

Step 7 (Indoors): Have your student groups write down their findings on the worksheet.

Step 8 (Indoors): Students will be presenting their findings from their rocks to the class. Each group will present their rocks and tell their classmates the answers from the worksheet.

Step 5 (Outdoors): Take your students outside to the playground, to a local park, etc. and have them look for rocks in their neighborhood. This can include the entirety of a mountain, or a small piece of gravel they find while exploring.

Step 6 (Outdoors): Have your student groups analyze the rock/geological feature. What kind of rock is it? What are the characteristics of each rock? Where would this kind of rock be found? Do they think there is similar rocks near Jarvie Ranch? Why or why not?

Step 7 (Outdoors): Have your student groups write down their findings on the worksheet. For the outdoor activity, it is important to have a visual representation of the rock. Students are welcome to take photos of the rock/geological feature they choose or to draw a picture of it.

Step 8 (Outdoors): Students will be presenting their findings from their rocks to the class. Each group will present their rocks and tell their classmates the answers from the worksheet.

Third Activity: Human Interaction with Geology

Humans are shaped by the lands in which we live. The rocks of a landscape, while not alive, shape the ways in which we interact with our environment. Even when we are not actively moving rocks and digging into the earth, we are interacting with geology. For instance, the geology of the area Jarvie Ranch sits in is called Brown's Park. Thanks to the high surrounding mountains that help block some of winds, the area's geology means that it has comparatively milder winters than the areas surrounding it. The ways in which the rock dipped and was eroded by wind and waters meant that this region was flatter and easier to cross than areas around this. Partially because of these reasons, peoples from Native tribes such as the Ute, Comanche, Shoshoni, Blackfoot, Arapaho, Sioux, and Navajo visited and lived within this area.

SUGGESTIONS FOR OBSERVING THE LANDSCAPE WITH OLDER STUDENTS:

HAVE YOUR STUDENTS FOCUS THEIR RESEARCH ON PROMINENT GEOLOGICAL FORMATIONS IN STATE AND NATIONAL PARKS IN UTAH (THE HOODOOS IN GOBLIN VALLEY, ARCHES IN ARCHES, ETC.). WHY DO THESE GEOLOGICAL FORMATIONS LOOK THE WAY THEY DO, WHAT FORCES SHAPED THEM, HOW LONG DO THESE KINDS OF FORMATIONS LAST BEFORE WEATHERING AND EROSION CHANGE THEM, ETC.?

FIELD TRIPS TO A LOCAL PARK (LOCAL, STATE, NATIONAL) TO OBSERVE THESE FEATURES

THEMSELVES

Continuing with this trend, when white settlers invaded the Brown's Park region in the mid-1800s and started building their permanent settlements, they were drawn by the region's relatively mild winters and the more crossable terrain. In addition, these new settlers began mining in the area. As mentioned, the primary rock making up much of the surface of the Brown's Park area is sedimentary rock. Due to the layering in sedimentary rock, it tends to be rich in materials such as coal, fossil fuels, and other ores that humans tend to use to make our modern society work.

People like John Jarvie invested in mining as part of their way of living in the valley. On February 20, 1897, Jarvie and two other individuals purchased an interest in the Bromide Lode Mining Claim in nearby Colorado. Jarvie purchased multiple other interests in other mines located throughout Brown's Park. Mining was often seen as a surefire way to get wealthy, especially when one was investing in a mine and not actually doing the work involved in digging up materials. However, this kind of investment was often an incredibly risky scenario, as you couldn't be sure that your particular mining stakes would yield a particularly profitable source of coal or valuable ore. This kind of hit-or-miss strategy to early mining meant that most people who invested in mines or tried to mine themselves often went broke and lost most of their savings. Because of this, the people who tended to get rich off of mining were the people who sold things to miners (housing, tools, plots of land, etc.). John Jarvie was no exception. None of the mines he ever invested in ever paid off, and he would suffer from the loss of this money for the rest of his life. However, he was never deterred. After these major investments, he continued to sink holes and dig tunnels, searching for gold. None of these investments ever panned out either. Fortunately, his general store was more profitable than these ventures and kept him from running out of money.

For this following activity, you are going to ask your students to "mine" and what the stakes were in choosing a mining site.

Materials: shoe boxes (or any small boxes that students/teachers can bring from home), dirt/sand/gravel, small paper/plastic bowl, marbles of different colors, spoons, popsicle sticks with numbers on them, small plastic trees, fences, animals, etc.

Step 1: Fill the boxes with dirt/sand/gravel before students arrive in the classroom. Place the marbles in the dirt/sand/gravel.

- Decide on what each marble means. For instance, a solid green, blue, or black could equal coal, a solid red or yellow could represent a valuable ore like gold. Marbles that are multi-colored or have a single stripe of color in them could represent less valuable strain of coal or valuable ore.
- Ensure that each box has a different ratio of marbles within it. Some boxes should only have one or two marbles total. Some should have only striped, some only colored, and some should have many.
- Since this is an activity for children, each box should contain at least two or three marbles so that each group has something to find.

Step 2: Cover the marbles with the dirt completely. On top of these covered marbles, place the small plastic trees, animals, buildings, etc. (e.g.: <u>Plastic Trees</u>, small items that can be purchased in bulk at a local grocery store or from Thrift Stores, items from home or from other teachers). Place these mini-diorama boxes throughout the room.

Step 3: Ask your students to get into groups of 2-3. These groups are going to be the miners. Each group should have at least one pencil and paper to record their findings.

Step 4: Have each group draw one numbered popsicle stick.

Step 5: Ask the group that drew the #1 popsicle stick to go to the boxes and make a claim. Students should stand by their claim, but not start digging yet.

Step 6: Repeat the claim process in order in which students drew the popsicle sticks until each group has made a claim in the classroom.

Step 7: Ask your students to take turns digging into their claim. Each student should get a turn to remove some dirt/sand/gravel. When a scoop is removed, ask your students to place this in the nearby bowl. Let your students know that they can stop mining at any point they think they've found all the material they want to find.

Step 8: Ask your students to mark down what they find as they go along on the paper and pencil their group has. What color is the marble, is it solid, etc. How much are they earning through their efforts? While your students are working, walk around and ask them why they are deciding to dig in certain areas, what are they finding, etc.?

Step 9: When your students have either dug as much as they want to do, ask them to put their pencils down and ask each group to share what they found while digging.

Beyond Mining

Step 10: After each student has shared, ask your class what the landscape of their area looks like now that they have dug in the mines. Where are the trees, the animals, the buildings, etc. that were there before they started?

Step 11: What does mining do to a community's landscape?

• Did your students think about the animals, trees, etc. while they were mining? Why or why not? What did they do with these items while they were mining (did they try to move them to another area of the box, did they just move them out of the box entirely, did they put them back when they were done mining?

• For older students, you can encourage students to debate whether mining is an ultimate force for good or destruction for a community. Ask students to consider economic, social, and environmental arguments for supporting or opposing mining in an area.

Step 12: Now that your students are done mining, ask your students to restore the landscape to what it was approximately when they were done. While your students work, ask them to chat with their group about why many mines practice mine reclamation (explanation below), why is it important? Should we do this with older mines? Why or why not?

• Although this was not the norm for John Jarvie's day, nowadays there are laws that require most mining practices to practice "mine reclamation." This means the mining company plans to restore a landscape once the mine stops operating. Most modern mines in Europe and the United States are planned with the idea that the company will restore the landscape afterwards. The mines try to restore the landscape as close to what it was before the land as possible.

• There are no right or wrong answers. Students are encouraged to have discussions based on their own personal experiences with mining and their relationships to the environments where they live.

At the end of the "mine reclamation" your students will have ideally placed all of the dirt/gravel/sand back in the box along with the little animals, saving you clean up time.

SUGGESTIONS FOR HUMAN INTERACTIONS WITH GEOLOGY WITH OLDER STUDENTS:

- AFTER THE ACTIVITY, HAVE YOUR STUDENTS RESEARCH THE LOCAL POLICIES SURROUNDING LAND RECLAMATION IN UTAH. WHAT POLICIES ARE IN PLACE OR ARE NOT IN PLACE FOR LAND RECLAMATION AND HOW DO THEY COMPARE TO OTHER STATES?
- ENCOURAGE A DEBATE AMONGST YOUR STUDENTS WITH LESSON PROMPTS LIKE: WHAT IS THE RESPONSIBILITY OF A CORPORATION OR COMPANY TO THE ENVIRONMENT THEY WORK IN? WHO SHOULD BE RESPONSIBLE FOR RUNNING LAND RECLAMATION PROJECTS—THE STATE, THE COMPANY, LOCAL PEOPLE, THE FEDERAL GOVERNMENT?
 - O IN THESE DEBATES, ENCOURAGE STUDENTS TO THINK BEYOND THEIR LOCAL PERSPECTIVES AND TO ARGUE IN A RESPECTFUL MANNER.

Jarvie Ranch Visit Extension

This lesson plan is an extension of the Local Geology worksheet. Students will work to compare the geology of the Jarvie Ranch region with the region in which they live.

Before the Visit:

Have your students work through the entirety of the <u>Local Geology Worksheet</u> for a geological feature/rock near their school or home.

During the Visit:

Have your students work through the entirety of the <u>Local Geology Worksheet</u> while visiting and walking around the Jarvie Ranch visit site.

After the Visit:

Ask your students to compare the landscape they observed at Jarvie Ranch to the landscape/geology of the region near their school. Ask students to compare both worksheets they completed about the local geology of their area and the area around Jarvie Ranch

On a sheet of lined paper, have your students write the differences and similarities of the geology of their area and the Brown's Park site that they observed. Ask your students to comment on

- 1) The noticeable differences and similarities?
- 2) Why do they think that these differences and similarities exist?

3) What forces helped shape the geology of their area and the area of Brown's Park?

Encourage your students to share their responses with their classmates in a presentation or in a group discussion format. Whichever works best for your students and class time needs. The goal of this exercise is to get students to think about the geology they are walking through and on in their daily lives and how these areas have been shaped throughout time.

Lesson Assessment

At the end of the two lesson plans, arrange chairs in the classroom in a circle for a discussion on the lesson plan. Go around the circle and ask your students to answer the following questions:

- 1. What did you learn from these activities?
- 2. What was your favorite part of each of the activities?
- 3. What was your least favorite part of each of the activities?

Once your students have answered each of these questions (or as many of the questions they felt comfortable answering, ask the group in general:

- 1. What do you wish you wish you had learned during this lesson?
- 2. What parts do you want to try again?

Encourage your students to comment on each other's comments, and to have a discussion about what they learned, what they liked, what they didn't like as they take turns in the circle.

For students who are less inclined to talk, you can also present these questions on the board and have them write their answers down to hand in at the end of the class.

Other Resources

Rocks Cycle Video: <u>https://www.britannica.com/video/143173/materials-</u> cycleforms-sedimentary-rock-Sediments-magma

Mining Reclamation Videos: <u>https://www.youtube.com/watch?v=3zEAicSEBME</u>

https://www.youtube.com/watch?v=chOpjYnQvV8

https://www.youtube.com/watch?v=_b_-E7Wt988

Rock Cycle Explanation from National Geographic: https://www.nationalgeographic.org/encyclopedia/rock-cycle/

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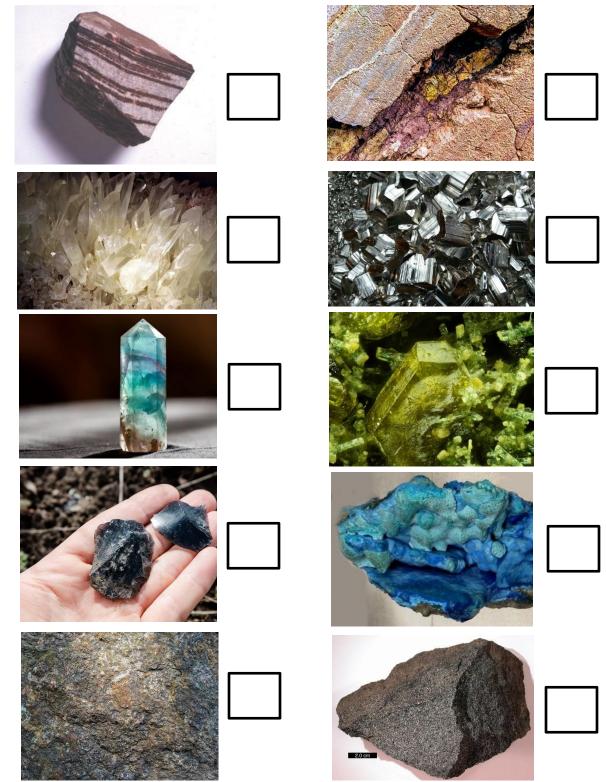
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"Utah: A Geologic History." Utah Geological Survey, geology.utah.gov/popular/generalgeology/geologic-history/utah-a-geologic-history/.

William L. Tennant. *John Jarvie of Brown's Park* (Salt Lake City: Utah State Office Bureau of Land Management, 1981).

Name___

Look at the following pictures. Decide if the picture is of a rock or of a mineral. Write an "R" in the box next to the picture if you think it is a rock and an "M" if you think it is a mineral.



Rocks v. Minerals Worksheet

TEACHER COPY

Look at the following pictures. Decide if the picture is of a rock or of a mineral. Write an "R" in the box next to the picture if you think it is a rock and an "M" if you think it is a mineral.



Rocks

Rocks are made up of minerals, organic materials, and other rocks that are brought together in for a new form.



Minerals

Minerals are an inorganic, solid mass of a single element or compound. They have ordered structures and are created when atoms from more than one element are bonded together.



Local Geology Worksheet

Names_

What are three characteristics you notice about your rock (color, banded, weight, etc.)?

Based on your observations, is your rock a sedimentary, metamorphic, or an igneous rock?

Based on your observations and your guess at what kind of rock you have, what can you infer (educated guess) about the environment that your rock came from? (Was it underground, aboveground, full of magma, watery?)

If you are doing the outside version of this activity, draw a picture of your rock or take a picture with a camera. Your group will show this picture to the class.

EXAMPLE Based on image on pg. 29

What are three characteristics you notice about your rock (color, banded, weight, etc.)?

This rock formation is a tan color with a little bit of red coloring around the base of formation.

The rock has a lot of evidence of erosion. There are holes in the rock showing where wind and

rain have hit the rock. It is also more worn away at the bottom than at the top. There are some

banding visible in this image. These bands are straight lines and they are not warped.

I can't tell how heavy the rocks that make up this image because I am not physically there to hold

them.

Based on your observations, is your rock a sedimentary, metamorphic, or an igneous rock?

Sedimentary Rock.

Based on your observations and your guess at what kind of rock you have, what can you infer (educated guess) about the environment that your rock came from? (Was it underground, aboveground, full of magma, watery?)

Since these rocks are large sedimentary rocks, I infer that these rocks came from being at the

bottom of a watery environment that was aboveground and not affected by magma.

If you are doing the outside version of this activity, draw a picture of your rock or take a picture with a camera. Your group will show this picture to the class.













John Jarvie Historic Ranch: Outlaws of Brown's Park

Authored by: Kylee Ehmann

Grade 4

LESSON PLAN DETAILS

Time Frame: 1-2 class periods

<u>Group Size:</u> 3-4

<u>Materials:</u> To Print Out/Copy: <u>Worksheets</u> (Group Work); <u>Primary/Secondary</u> Hand Outs Sources (Group Work)

Four pieces of plain square paper, two smaller squares of colored construction paper, a string to create their booklets, glue stick (One per individual)

<u>Life Skills:</u> Media Literacy

Using and citing sources

Intended Learning Outcomes:

Students will define, recognize, and analyze primary, secondary and folkloric documents.

Outlaws of Brown's Park Lesson Plan

By: Kylee Ehmann

This lesson plan is intended for fourth grade. See comments throughout lesson plan for ideas on how to adjust this material for lower or higher grades.

SUMMARY

This lesson plan is intended to give children tools to critical analyze historical fact and distinguish it from folklore.

Through a series of readings and activities, students will define and distinguish primary sources from secondary sources, analyze information from the past, and draw their own conclusions about past events WHILE CITING EVIDENCE FOR THEIR REASONING.

Additionally, students will compare their preexisting knowledge or familiarity with outlaw legends to the historical facts of the region.

Outlaws are used in this lesson plan – not to glorify murder or robbery – but because they are a population that exist on the fringes of history. Their stories are easily romanticized and turned into legend due to the lack of documentation surrounding the specifics of their lives. Remember to emphasize that many outlaws, even those accepted by the community, often committed crimes that hurt people and their livelihoods.

Relevant Core Standards

Utah Elementary Library Media Standards (K-5)

Strand 4: Defining an information problem and identifying information needed.

• Standard 1: Define an information problem.

Strand 5: Identifying, evaluating, and selecting sources.

• Standard 1: Identify information sources (e.g., texts, places, people); Standard 2: Evaluate and select sources based on predetermined criteria (e.g., relevancy, currency, credibility).

Strand 6: Locating sources and accessing information.

• Standard 1: Locate identified sources; Standard 2: Access information within sources by using relevant tools (e.g., table of contents, indexes, keyword searches, sidebars, related subjects).

Strand 7: Engaging with and extracting information.

• Standard 1: Engage with information by reading, listening, and viewing sources in a variety of formats; Standard 2: Select, extract, and record information that addresses the information problem, answers guiding questions, and meets evaluation criteria.

Strand 8: Organizing, synthesizing, and presenting information.

• Standard 1: Organize information from multiple sources; Standard 2: Present a learning product using a variety of presentation techniques (e.g., writing, speaking, media) to communicate new understandings.

Strand 9: Evaluate the process and product

• Standard 1: Evaluate the execution of the product for efficacy and quality, and identify areas needing improvement to determine how to proceed in the future; Standard 2: Identify areas of the processes that were successfully executed, as well as those needing improvement, to determine how to proceed in the future.

Strand 10-14: Media Literacy

Social Studies (4th Grade)

Standard 2: Students will understand how Utah's history has been shaped by many diverse people, events, and ideas.

Wyoming Elementary Library Media Standards (K-5)

Content Standard 4: Time Continuity, and Change—Students analyze events, people, problems, and ideas within their historical contexts.

• SS5.4.1 Describe how small changes can lead to big changes (cause and effect) (e.g., introduction of horses to the Plains tribes, discovery of gold and minerals in the region, discovery of electricity, impact of the Homestead Act and Dawes Act, establishment of water rights and resource management).

• SS5.4.5 Identify differences between and secondary sources. Find primary and secondary sources about an historical event. Summarize central ideas in primary and secondary resources.

Content Standard 5: People, Places, and Environments—Students apply their knowledge of the geographic themes (location, place, movement, region, and human/environment interactions) and skills to demonstrate an understanding of interrelationships among people, places, and environments.

• SS5.5.2 Explain how physical features, patterns, and systems impact different regions and how these features may help us generalize and compare areas within the reservation, state, nation, or world.

• SS5.5.3 Describe the human features of an area, past and present settlement patterns, and how ideas, goods, and/or people move from one area to another.

• SS5.5.4 Describe how the environment influences people in Wyoming and how we adjust to and/or change our environment in order to survive (e.g., natural resources, housing, and food)

Content Standard 6: Technology, Literacy, and Global Connections—Students use technology and literacy skills to access, synthesize, and evaluate information to communicate and apply social studies knowledge to global situations.

- SS5.6.1 Use various media resources in order to address a question or solve a problem.
- SS5.6.2 Identify validity of information (e.g., accuracy, relevancy, fact, or fiction).
- SS5.6.3 Use digital tools to research, design, and present social studies concepts (e.g., understand how individual responsibility applies in usage of digital media).
- SS5.6.4 Identify the difference between primary and secondary sources.

Colorado Elementary Library Media Standards (K-5)

Fourth Grade Level Expectations

• History develops moral understanding, defines identity and creates an appreciation of how things change while building skills in judgment and decision-making. History enhances the ability to read varied sources and develop the skills to analyze, interpret and communicate. Analyze and debate multiple perspectives on an issue.

Background for Teachers

Prior to teaching this lesson, teachers should know the legends surrounding outlaws at/near Jarvie Ranch and be familiar with the facts behind these legends. Teachers should familiarize themselves with the following <u>summaries</u> of famous outlaws at Jarvie Ranch in order to assist students in analyzing the sources.

While documentation about the "outlaw" men and women in Brown's Park exists, the exact details of these people's lives are fuzzy. While teaching this lesson, teachers should feel comfortable pointing out that they, like many people who live on the fringes of society, did not have access to the same kinds of resources to leave an exact history of their lives in the same way that wealthy, often white, individuals of the time did.

Teachers should acknowledge and discuss that all settlers in the Brown's Park region were part of the illegal seizure of Native land by the United States government. Potential discussion points can be why a settler who takes Native land is not an outlaw, but a cattle rustler who takes a cow from a settler is. Why are some people outlaws and others not?

Included are primary and secondary sources for students to view and analyze. Feel free to add your own sources.

Background for Students

Prior to beginning, students will need to know the words *primary source*, *secondary source*, and *folklore* and how to differentiate between the three.

Students should know is the background and location of Jarvie Ranch. Additionally, students should be familiar that Brown's Park's remote location made it popular to ranchers and outlaws alike.

The goal of this lesson plan is for students to recognize and differentiate primary, secondary, and folkloric sources. It is not necessary for your students to retain all the facts about the different outlaws in the region. However, it may be helpful to go over a history of the region to help dispel misconceptions students may have before they begin their research.

Lesson Plan Procedure

Day One

- Teachers should explain primary, secondary, and folkloric sources.
- Definition of sources activity.
- Begin Booklet Activity on differentiating and using sources, move through at least two of the prompts.

Day Two

- Finish all prompts on the Booklet Activity.
- Have students attach booklets together.
- Have students present booklets to their small groups, and offer critiques.

Teacher Resource: Overview of Jarvie Ranch and the Surrounding Outlaws

"Several books have been written about the Brown's Park area in general and about the outlaw era in particular. Being informal in nature, none have been seriously documented. Much of what has been written is highly romanticized and deals with the heroic, dramatic, and eccentric usually relying on local folklore for the facts...Often the heroic, dramatic, and eccentric are the only elements which survive the passage of time and folklore can provide valuable historical insight." *~John Jarvie of Brown's Park* by William L. Tennent

While we know about the settlers, the homesteaders, the ranchers, and the traders of the region, the group of people who made this region famous—the outlaws—exist only on the fringes of history. Collected here is a brief summary of the most famous of the outlaws that visited Jarvie Ranch around the period when the Jarvie Family owned the property, or were present in the surrounding countryside.

This lesson plan focuses on the time period 1880-1910. It focuses primarily on white settlers in the region who were either outlaws themselves or aided and abetted them. It is important to note while the "outlaws" thrived, other histories such as the continued displacement of Native people by these settlers and the government were happening simultaneously. This history is specifically covered in the Ute lesson plan within this curriculum.

Brown's Park has long been a site for trading and travelling. The area is a valley surrounded by tall mountains that create a space where winters and summers are comparatively mild. Additionally, the Green River becomes easily crossable in the area of what is now occupied by Jarvie Ranch. The Shoshone, Comanche, and Ute tribes, as well as the Blackfoot, Sioux, Chevenne, Arapaho, and Navajo tribes, knew this and were the first inhabitants in the area. Due to the fact the region was far from main white settlements, white people did not enter the valley in a meaningful way until 1837. After this point, the region attracted fur trappers and became a stop for settlers on the nearby Oregon Trail and the Old Spanish Trails. Fort Davy Crockett was established to "protect" white travelers from theoretical Native attacks. However, the fort was too costly to run due to its remote location and there weren't any documented attacks When the fort was abandoned in the 1840s, many of the legitimate businesses and trappers who operated around it also left the area. The remaining residents were the original Native inhabitants, some ranchers whose cattle thrived in the mild climate, a few businessmen like John Jarvie, and people on the outskirts of the law. Because the region was so remote and law enforcement was so few, many of the residents of Brown's Park tolerated those classified as "outlaws" so long as they did not commit murder. Additionally, since the Brown's Park area stretched between three states, it was easy for outlaws to cross

state/territory lines after committing a theft or murder, thus confusing the lawmen and mobs as to who had jurisdiction in tracking down these men and bringing them to justice.

The goal of these summaries is to provide teachers with a factual touchstone with their students as they work through their exercises in the following lesson plan. You may feel like covering these histories with your students after they complete the first portion of the lesson plan, or you may want to have students uncover some facts through primary and secondary source readings. Again, the goal is to get students to be able to learn what is the difference between a primary, secondary, and folkloric source, not to ensure that they know all of the facts about the outlaws that lived in this region. It is alright that your students' initial main understanding of the outlaws comes from media and folklore portrayals. As the above quote notes, this is most people's understandings of "outlaws" because the factual information about them is so few and far between. Pictures are included when available.

Butch Cassidy, Harry Alonzo Longabaugh & The Wild Bunch:

Thanks to the 1969 Robert Redford picture *Butch Cassidy and the Sundance Kid*, Butch Cassidy is the most famous of the outlaws who would live in the region of Brown's Park. Cassidy was born in Beaver, Utah Territory in 1866 as Robert LeRoy Parker. While his early years were unremarkable, his turn to outlaw behavior began in 1880. After a minor shopping incident in his hometown, he began working on ranches further north in



Utah. In the following decade, supposedly picked up the name "Cassidy" while working with a fellow rancher and cattle rustler from the Brown's Park region. He began committing more serious robberies after robbing a bank on June 24, 1889 in Telluride, Colorado. By 1890, Cassidy began regularly passing through the Brown's Park—a region that was friendly to outlaws and near Cassidy's ranch in Dubois, Wyoming. Around this time, he met Harry Alonzo Longabaugh, "the Sundance Kid." Longabaugh was born in Mont Clare, Pennsylvania in 1867 and headed west at the age of 15. He is thought to have begun robbing in 1892, eventually joining up with the "Wild Bunch," a collective of loosely-affiliated bandits who would hide in and around Brown's Park. While in the region, they were friendly with many of the Brown's Park residents such as the Bassett family (whose daughters Ann and Josie were possibly romantically involved with members of the Wild Bunch and would be known as cattle rustlers themselves) and possibly John Jarvie himself. In front of the dugout home at Jarvie

Ranch, a plaque notes that the dugout served as a hiding place for Cassidy and his gang members, but the documentation on this is shaky. After a decade of robberies (though no murders) Cassidy, Longabaugh, and a female companion named Etta Place left the region, fleeing from the Pinkerton Detective Agency. The trio moved to Argentina in 1901, where they settled as ranchers in the Andes Mountains. Etta Place vanishes from the historical record by 1905, when two English-Speaking bandits robbed a store near where Cassidy and Longabaugh lived. Two years later, they were in Bolivia, held up in a cabin and surrounded by local soldiers, police, and other officials. At the end of a shootout, the pair are believed to have died in a murder-suicide. However, Josie Bassett claimed Cassidy survived and visited her in the 1920s.

Jesse Ewing: Not much is known about Jesse Ewing before he arrived at Brown's Park. Like many who moved from the United States into the western territories, he was able to shed his old life and start fresh thousands of miles from where he started. The Utah Place Names describes him as "an eccentric, moody prospector, outlaw, and murderer of the 1860s" who lived at the mouth of a canyon in near Brown's Park that bears his name. He as killed by Frank Duncan "in a dispute over a mutual lady friend," and is buried at Jarvie Ranch.

Jack Bennett: Bennett was a known rustler in Brown's Park. John Jarvie contracted Jack "Judge" Bennett to build his stone



house in the 1880s. This structure still stands at the Ranch site. The cattle rustler and outlaw associate Josie Bassett described Bennett as a kind of lower-tier kind of outlaw than the Wild Bunch, as he did not perform their more high-stakes robberies. Bassett noted that he learned the masonry skills necessary to build Jarvie's house in prison. In 1898, Colorado lawmen arrived in the area to collect Bennett and his associate for robbery. When they arrived, they learned Bennett and his associates had shot and killed a local boy named Willie Strang. A posse that included many prominent men from Brown's Park hunted the men down. Bennett and his associate were caught, and Bennett was hung at the Bassett ranch. After he died, his associate was sent to jail.

George Hood & William King: John Jarvie's ranch was a sort of way station for travelers passing east and west. Fairly isolated from other white settlements, it was the only place that a person could rest for miles around. Additionally, Jarvie Ranch was the main source of goods for Brown's Park and had previously been the region's post office. Because of Jarvie's success at the ranch and its central location, rumors grew that Jarvie kept a large amount of money in safe on his property. In 1909, local herdsmen Bill McKinley and William King, decided to rob Jarvie based on these rumors. On July 6, 1909, the men forced Jarvie into his store and had him open his small safe. Jarvie had recently paid his accounts, and the safe (which currently resides in the restored Jarvie Ranch store) contained a single one-hundred-dollar bill and a pearl-handled revolver. Jarvie pulled free from his captors and ran towards his irrigation ditch. Hood and King shot him twice from behind and he died. The killers put the body in a boat, pushed his body down the river, and turned to ransack the store. The two

men escaped, though they weren't able to take their loot with them. They were never captured. John Jarvie's body was discovered on July 14, and was buried in the nearby Ladore Cemetery.

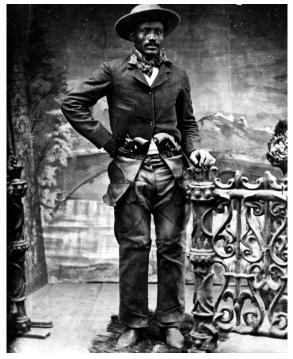
Josie & Ann Bassett:

Josie and Ann Bassett were sisters who grew up in the Brown's Park region. Both girls were taught to rope, ride, shoot, and handle the general necessities of ranching. Their father, Herb Bassett, did business with many of the outlaws that came through Brown's Park. Among the most famous of



these outlaws was Butch Cassidy and his Wild Bunch gang. Both are rumored to have been romantically involved with Cassidy and members of the gang at various points between 1890-1900. They gained their own fame as cattle rustlers after several wealthy cattlemen tried to harass the sisters out of their ranch in Brown's Park. The sisters began stealing cattle from these wealthy ranchers. Though they were tried for this, they were never convicted. By 1904, much of the outlaw past of Brown's Park faded, as all the outlaws were either retired or killed. Ann married a local rancher and moved to Leeds, Utah. She died in 1956 at the age of 77. Her ashes are spread across the Bassett ranch in Brown's Park. Josie moved to Vernal, Utah in 1913, where she became a bootlegger during Prohibition and was at various points of time accused of poaching and stealing cattle. She died in 1963 at the age of 90 after a horse kicked her. She is buried in the Bassett Cemetery.

Isom Dart: Dart was an African American rancher who lived the last portion of his life in the Brown's Park area. Dart was born into slavery as Ned Huddleston in 1849. Thanks to the Union victory, he gained his freedom at the end of the Civil War and began working as a stunt rider at a rodeo near the Texas-Mexican border. Dart was representative of the typical cowboy, who were typically Mexican or formerly enslaved African Americans. For a while, he worked as a cattle rustler and then a cowboy working cattle drives in the Colorado-Wyoming area. By 1871 he moved to the Brown's Park area permanently. In 1875 he joined the Tip Gault Gang, which specialized in stealing cattle from wealthy ranchers. After almost dying with the rest of his gang in an ambush, he went further west and began working as a bronco buster for ranchers. He



returned to Brown's Park (then known as Brown's Hole) in 1890 and established his own ranch. Some competing white ranchers believed he had built his herd from cattle he had stolen from them, and hired a range detective, Tom Horn, to kill Dart. Horn killed Dart on October 3, 1900. While some viewed him as a thief, many Brown's Park residents believed he was killed for land, cattle, and jealousy and mourned his death as the passing of a good neighbor.

| Key Vocabulary | | |
|------------------|--|--|
| Outlaw | a person who has broken the law, especially one who remains at large or is a fugitive. | |
| Primary Source | any thing (artifact, document, dairy, manuscript, autobiography, photograph, recording, etc.) that documents an event/time period and was created at the time of the event/time period. | |
| Secondary Source | any thing (document, movie, paper, recording, etc.) that discusses and analyzes primary sources and compiles them into a single source. | |
| Folklore | the traditional beliefs, customs, and stories of a community, passed from generation to generation. Folklore can be rooted in fact, but details can change to reflect the cultural values of the people telling them. | |

| Fiction | stories that use imagined events and people. Fiction may involve real people, real time periods, and real events, but are primarily based out of the author's imagination |
|------------|---|
| Nonfiction | Stories that are based in fact and on primary sources. |

First Activity: Defining and Identifying Sources

Step 1: Write out "primary source," "secondary source" and "folklore" along with their definitions. You may want to use the definitions provided here, in an online dictionary, or in your words.

Step 2: Introduce your students to the definitions of primary, secondary, folkloric sources and discuss with them why each is different.

Primary Source

A *primary source* is any artifact, document, dairy, manuscript, autobiography, photograph, recording, etc. that documents an event/time period and was created at the time of the event/time period.

In general, the more primary sources one has about an event/time period, the more accurate your description of that event/time period will be. However, it is important to note that primary source must be verified with other research. For instance, photographs can be staged, oral histories can have minor details that don't match up to the historical records, and someone's diary can be influenced by racist/sexist/etc. views held by the author.

Examples of Primary Sources: oral histories, photographs, newspaper articles published at the time of the event, artifacts such as clothing and furniture, geological

Secondary Source

A *secondary source* is any document, movie, paper, recording, etc. that discusses and analyzes primary sources and compiles them into a single source. Secondary sources analyze, interpret, and evaluate an event/time period and reflect new understandings and information that we have learned since the original event/time period occurred.

When conducting research, secondary sources should be referenced after primary sources. Secondary sources, like primary sources, are shaped by the racist/sexist/classist views of their authors and should be fact-checked against primary and other secondary sources.

Examples of Secondary Sources: documentaries, biographies, a history textbook, newspaper articles written *after* an event takes place (think, articles about 9/11 written in 2012)

Folklore/Fictional Source

Folklore is the traditional beliefs, customs, and stories of a community, passed from generation to generation. Folklore can be rooted in fact, but details can change to reflect the

SUGGESTIONS FOR USING ACTIVITY ONE WITH OLDER STUDENTS:

- INSTEAD OF USING THE WORKSHEETS, HAVE YOUR STUDENTS WORK ALONE OR TOGETHER IN GROUPS TO COME UP WITH AT LEAST SIX DIFFERENT EXAMPLES FOR EACH CATEGORY: PRIMARY SOURCE, SECONDARY SOURCE, FOLKLORIC/FICTIONAL SOURCE. HAVE STUDENTS WRITE/DRAW THESE SOURCES.
- IF YOU DISCUSSED TERTIARY SOURCES, ENCOURAGE STUDENTS TO THINK OF, WRITE DOWN/DRAW EXAMPLES OF THREE TERTIARY SOURCES.
- HAVE STUDENTS DISCUSS WHY EACH SOURCE IS IN EACH CATEGORY.

cultural values of the people telling them.

Fiction describes stories that use imagined events and people. Fiction may involve real people, real time periods, and real events, but are primarily based out of the author's imagination. *Nonfiction* describes stories that are based in fact and on primary sources.

Examples of folkloric sources: songs, urban legends, tales, proverbs. *Examples of fiction sources:* movies "based on real events," historical fiction literature.

If your students struggle understanding, use examples from their daily life to explain the differences. They are already using these different sources in their daily life. They listen to the news with the adults, they tell imaginary stories, they read their textbooks,

SUGGESTIONS FOR INTRODUCING SOURCES TO OLDER STUDENTS:

- HAVE YOUR STUDENTS COME UP WITH THE DEFINITIONS FOR EACH SOURCE IN GROUPS. HAVE EACH GROUP GIVE THEIR DEFINITIONS. HAVE CLASS WORK TO COLLABORATIVELY COMBINE THEIR DEFINITIONS INTO ONE THAT YOU WILL USE IN CLASS.
- INTRODUCE STUDENTS TO "TERTIARY SOURCES," WHICH INCLUDE DICTIONARIES, ENCYCLOPEDIAS, SOME TEXTBOOKS, AND OTHER COMPENDIA THAT GIVE A BROAD SUMMARIES OF EVENTS. TERTIARY SOURCES ARE TYPICALLY NOT INTENDED FOR ACADEMIC RESEARCH.

and they compile facts about things they've learned when they share with their friends and families.

Step 3: After you feel your students understand the difference between sources, have them get into groups of 2-3 students (this activity can be done alone if students have difficulty working in groups). Each group will sort the sources into *primary sources*, *secondary*

sources, and *folklore/fiction* on either the worksheet or by using the squares. <u>The resources</u> to do this are located at the end of this packet.

Step 4: Once your students have organized the sources, ask them to discuss why they sorted each into the different categories.

Second Activity, Part 1: What Is an Outlaw?

Over the course of this activity, students will make a small booklet that will show their understandings of folklore, primary sources, secondary sources, and their ability to analyze and compile the information from each source.

Each Student should have four pieces of blank, square paper, a string/ribbon, and two smaller pieces of square paper.

Step 1: Hand out 4 (four) pieces of square paper to each student. Normal printer paper cut into squares works fine, but origami paper can help you save on some prep time. If you plan on collecting each paper after each part of this activity, you may want to hand out one piece of paper as you move through the activity.

Step 2: Have your students take one piece of paper out and keep the rest safe in a folder or in their desk. If you are handing out one piece of paper at a time, ensure you have somewhere to store the students' pages afterwards.

Step 3: On one side of the paper have your students write or draw the answer to the question: *What was an outlaw?*

- When students are done writing the answer to this question, have them write down at the bottom of their paper where their idea of an outlaw comes from (Western movies, cartoons, books, documentaries, etc.).
- Ask your students to define whether this source is a primary, secondary, or folklore/fiction source. Have them write their answer at the bottom of the page.
- There is no "wrong answer" to this step—it is showing kids they are engaging with history already and have an idea about the past, even if that idea comes from fictional sources.

Step 4: Either collect each paper from the students (have them write their name on it if this is the case), or ask them to store this paper for later. They will need it to save this paper in order to complete their booklet.



Second Activity, Part 2: Reading Primary Sources

Now that your students have drawn/written what their idea of what an outlaw is, students will read and analyze primary source documents, quotes, and other materials about the outlaws of Brown's Park. This lesson plan contains <u>10 primary source materials for</u> your students to analyze. Feel free to supplement materials if you have additional resources that you feel your students should analyze.

Step 1: Have students get into pairs. Each student will receive 5 sources to analyze. Ensure that each student has a mix of visual and textual-based sources to analyze.

• If your classroom is short on time, expand the group size. Try to ensure students receive an equal number of sources.

Step 2: Students will read/look at their sources and make a minimum of one observation from each source. Either have your students write down this observation or have them discuss it with their partner/group.

Step 3: Once all your students have analyzed the sources, students will take a second piece of their squared paper and draw and/or write the answer to the following question: **Based on** *your primary sources, what was life like for an outlaw in Brown's Park?*

- At the bottom of their paper, require your students to somehow note which sources they used (can be writing the name of a paper, a description of the picture). Consistent citation or alignment with standardized citations such as MLA, APA, or Chicago is not required, as this exercise is to get students used to the idea of seeing and using cited materials as they work.
- Collect the paper or ask your students to store it away until part 5.



Activity, Part 3: Reading Secondary Sources

Students will analyze secondary sources that relate to outlaw life in Brown's Park. Through reading/viewing these sources, students will see how other historians have gathered information about the past and how it expands on their knowledge of the past. This lesson plan includes <u>10 secondary source materials</u> for your students to analyze. Feel free to supplement materials if you have additional resources that you feel your students should analyze.

Step 1: Have students get into pairs. Each student will receive 5 sources to analyze. Ensure that each student has a mix of visual (photographs) and textual-based sources to analyze.

• If your classroom is short on time, expand the group size. Try to ensure students receive an equal number of sources.

Step 2: Students will read/look at their sources and make a minimum of one observation from each source. Either have your students write down this observation or have them discuss it with their partner/group.

• Encourage students to think about and discuss with their groups how these secondary sources are different or similar from the primary source materials that they read.

• Try to impress upon children that some secondary sources are more quality than the others. For example, what is the importance of a source from a .gov organization as opposed to a .net?

SUGGESTIONS FOR OLDER STUDENTS:

- AFTER HAVING YOUR STUDENTS ANALYZE THE SECONDARY SOURCE MATERIALS, ENCOURAGE THEM TO USE THEIR PHONES, LAPTOPS, OR VISIT A COMPUTER (AT SCHOOL OR AT HOME) TO FIND THEIR OWN SECONDARY SOURCE MATERIAL(S) RELATED TO THIS TOPIC.
- WHEN WRITING/DRAWING THE ANSWER TO THIS SECTION'S QUESTION, REQUIRE STUDENTS TO USE CONSISTENT (MLA, APA, CHICAGO, ETC) CITATION ON THEIR PAPER
- SET TIME ASIDE FOR A DISCUSSION IN CLASS FOR WHAT MAKES A GOOD SECONDARY SOURCE (NUMBER OF CITATIONS, CITATIONS THAT SUPPORT THE GENERAL ARGUMENT, CITATIONS THAT REFERENCE REAL, QUALITY PRIMARY SOURCES). CAN EXTEND TO DISCUSSION ON

SUGGESETIONES REPAID THE FOUNDE NTAKING THE SOURCES HAD WHEN THEY MADE THE SOURCE.

- AFTER HAVING YOUR STUDENTS ANALYZE THE PRIMARY SOURCE MATERIALS, ENCOURAGE THEM TO USE THEIR PHONES, LAPTOPS, OR VISIT A COMPUTER (AT SCHOOL OR AT HOME) TO FIND THEIR OWN PRIMARY SOURCE MATERIAL(S) RELATED TO THIS TOPIC.
- HAVE YOUR STUDENTS CRITICALLY ANALYZE THE PRIMARY SOURCES FOR POTENTIAL BIASES THAT THE PEOPLE MAKING THE SOURCES HAD WHEN THEY MADE THE SOURCE.
- WHEN WRITING/DRAWING THE ANSWER TO THIS SECTION'S QUESTION, REQUIRE STUDENTS TO USE CONSISTENT (MLA, APA, CHICAGO, ETC) CITATION ON THEIR PAPER

Step 3: Students will take out their third piece of squared paper and draw and/or write the answer to the following question: *Based on your secondary sources, what was life like for an outlaw in Brown's Park?*

- At the bottom of their paper, require your students to somehow note which sources they used (e.g. can be writing the name of a paper, a description of the picture). Consistent citation or alignment with standardized citations such as MLA, APA, or Chicago is not required, as this exercise is to get students used to the idea of seeing and using cited materials as they work.
- Collect the paper or ask your students to store it away until part 5.

Second Activity, Part 4: Analyzing and Compiling Sources

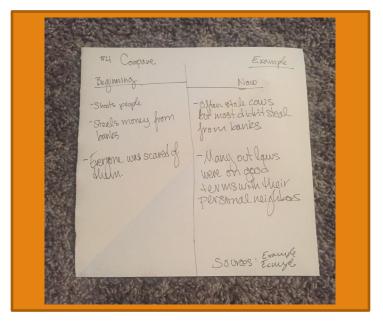
Students will come together to discuss their findings while reading the primary and secondary sources from this lesson plan.

Step 1: Have your students get into pairs/groups. Discuss what they learned from the primary and secondary sources.

- How did it match up with their folkloric/fictional idea of what an outlaw was?
- What kind of source did they feel had the greatest impact on them and what they thought an outlaw was?
- Have students discuss the ways in which their idea about outlaws changed (or did not change) after reading these sources.

Step 2: Students will take out their fourth piece of squared paper and draw and/or write the answer to the following prompt: *Compare your original idea of outlaws to your idea of outlaws after reading the sources.*

- At the bottom of their paper, require your students to somehow note which sources they used (can be writing the name of a paper, a description of the picture). Consistent citation or alignment with standardized citations such as MLA, APA, or Chicago is not required, as this exercise is to get students used to the idea of seeing and using cited materials as they work.
- Collect the paper or ask your students to store it away until part 5.



SUGGESTIONS FOR OLDER STUDENTS:

- WHEN STUDENTS GET INTO GROUPS, REQUIRE THAT THEY WRITE DOWN WHAT THE DIFFERENCES AND SIMILARITIES THEY SAW BETWEEN PRIMARY SOURCES AND SECONDARY SOURCES.
- WHAT KINDS OF BIASES DID YOUR STUDENTS FIND IN THE SOURCES THEY READ (SEXISM, RACISM, CLASSISM, ETC.)? HOW DO STUDENTS THINK THESE BIASES CHANGE THE WAY THE INFORMATION IS PORTRAYED? IS THIS KIND OF BIAS SIMILAR TO MODERN SOURCES SUCH AS THE NEWS?
- REQUIRE A SHORT 1-2 PAGE PAPER WHERE EACH STUDENT WRITES/TYPES WHAT THE VALUE OF EACH OF THE SOURCES ARE? WHY IS IT IMPORTANT TO USE PRIMARY, SECONDARY, AND EVEN FOLKLORIC SOURCES WHEN WRITING A HISTORICAL PAPER?
 - THIS CAN ALSO WORK AS AN IN-CLASSROOM DISCUSSION.
- WHEN WRITING/DRAWING THE ANSWER TO THIS SECTION'S QUESTION, REQUIRE STUDENTS TO USE CONSISTENT (MLA, APA, CHICAGO, ETC) CITATION ON THEIR PAPER

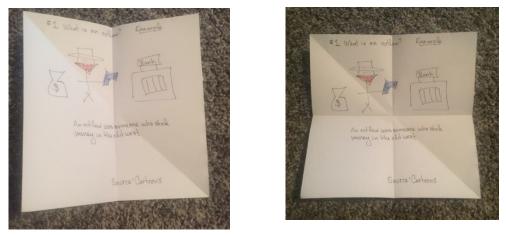
Second Activity, Part 5: Compilation of Booklet & Presenting Information

Each student should have 4 pieces of paper with the written and/or drawn answers to the lesson's questions that they created over the course of the lesson plan. Over the course of this lesson, teachers should have either collected the papers from each student or asked their students to store their pictures in their desks or in a folder.

Step 1: Either return each students' papers or ask them to retrieve it from their desks/folder.

Step 2: Lead your class through the origami folds of the papers that will help them create the booklets. Practice the following steps before leading your students through this process.

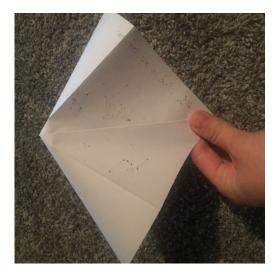
A: Fold each square of paper in half both ways (hotdog and hamburger style).

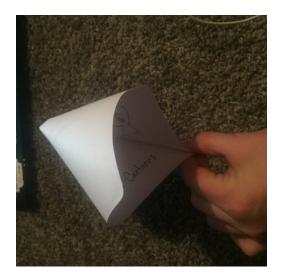


B: Fold a crease diagonally through the paper. There should be three folds at this point.

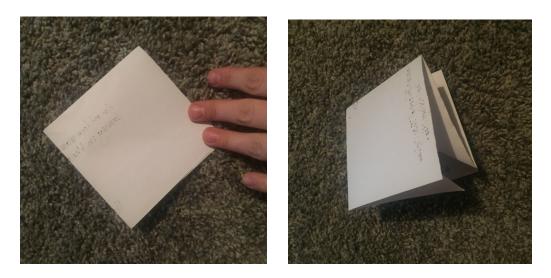


C: Bring the corners on the diagonal fold together.

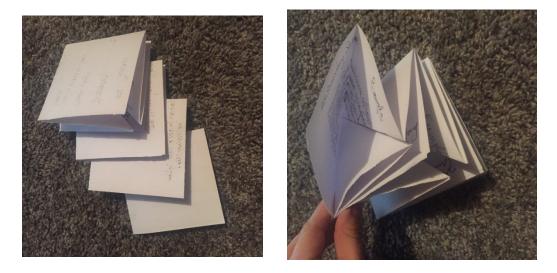




D: Press down so that the part of the paper showing is the part that does not have folds. The creases of the diagonal fold should go inward. Repeat with each piece of paper.



E: Ensure each piece of paper is facing the same way. The open side of each page should face the same way. Glue the flat sides together.



Step 3: Hand out 2 pieces of square color construction paper and long pieces of string/ribbon to each student.

The pieces of colored paper should be cut to fit the size of the paper as it folded (so that it fits the smooth side of the folded paper as shown in Step 2: D & E.

Practice the following steps before leading your students through this process.

A: Lay the piece of ribbon/string flat on the desk.



B: Place glue on the two colored squares and stick them to the ribbon/string. Leave a gap in between the two pages so that the book can easily be opened and closed.



C: Place glue onto the pieces of paper and glue them to the inside of your book.



D: Glue the pages of your book into the inside of your covers.



When you finish your book, it can be opened so that each page folds out and folds in easily.



Step 4: Allow your students booklets to dry. While the booklets are drying, debrief the project with your students.

- Do your students feel like they understand the difference between primary sources, secondary sources, folklore/fiction sources?
- Why is each type source important in your students' opinion? Which made the biggest impact on your students?
- What kind of source impacted your students the most?
- Why is it important to be able to tell the difference between each source?
- Can your students name primary sources, folklore/fiction, and secondary sources that they see in their daily lives (stories their families tell, newspapers, news on the television, movies and documentaries they watch, books they read, etc.)?
- Which of these sources do your students use most often?

Lesson Assessment

At the end of the two lesson plans, arrange chairs in the classroom in a circle for a discussion on the lesson plan. Go around the circle and ask your students to answer the following questions:

- 4. What did you learn from these activities?
- 5. What was your favorite part of each of the activities?
- 6. What was your least favorite part of each of the activities?

Once your students have answered each of these questions (or as many of the questions they felt comfortable answering, ask the group in general:

- 3. What do you wish you wish you had learned during this lesson?
- 4. What parts do you want to try again?

Encourage your students to comment on each other's comments and to have a discussion about what they learned, what they liked, what they didn't like as they take turns in the circle.

For students who are less inclined to talk, you can also present these questions on the board and have them write their answers down to hand in at the end of the class.

Jarvie Ranch Visit Extension

In this lesson plan, your students have explored many written and visual examples of primary and secondary sources that relate to the history of outlaws in and around Jarvie Ranch. While your students explore the John Jarvie Historical Ranch site, they will have the opportunity to interact with primary sources such as artifacts, buildings, the land itself, historic catalogues, etc. They will also have opportunity to read secondary sources such as historic signs and listen to historic interpretations.

Before the Visit:

If you had not already explained to your students the differences between primary, secondary and folkloric/fictional sources, walk your students through the differences. You may want to use the <u>first activity</u> listed in this document. The materials and worksheet for this lesson are listed <u>at the end</u> of this lesson plan.

If you have already walked through the differences between primary, secondary, and folkloric/fictional sources, introduce your students to the idea that sources can be more than just texts and pictures. They can include artifacts, buildings, gravestones, the land, museum plaques, etc.

During the Visit:

<u>Use the next page's worksheet</u> while your students explore the site. In the worksheet, your students will be asked to find a primary and secondary source on the site that relates to the outlaw history of Brown's Park and Jarvie Ranch.

After the Visit:

If you have already worked through <u>Activity 2 in this lesson plan</u>, either have a class discussion or have your students break down into groups to talk about how their visit relates to the booklet they made.

- Why is it important to have primary sources that are pictures or writing?
- What kind of source did they relate to more-artifacts or writing/pictures?

If you have not worked through Activity 2, have your students create a booklet that will help them identify, differentiate, and analyze different kinds of sources. As they work, ask them to integrate their findings at the ranch into their booklets. Name:

Find one primary source (e.g. artifact, the landscape, etc.) that focuses on outlaws. Write the name of or draw a picture of this source. Write one sentence describing what you learned from this source.

Find one secondary source (e.g. a sign, a museum guide, etc.) that focuses on outlaws. Write the name of or draw a picture of this source. Write one sentence describing what you learned from this source.

Names:

Butch Cassidy robbed a bank in the 1880s and then fled to his outlaw hideout! Many people were interested in the robbery and lots of sources were made.

Next to each source about the robbery, write which kind of source it is. Is it a primary source, a secondary source, or a folkloric/fictional source?



| A newspaper article from the day of the robbery that shows how much money was taken. | |
|--|--|
| A bank employee's oral history of the robbery. | |
| A movie about the robbery made in 2020. | |
| A documentary movie about the robbery on PBS. | |
| A newspaper article about the robbery | |
| written 10 years after it happened. | |
| A folk song written about Butch | |
| Cassidy's robbery. | |
| A historical fiction book written about the robbery. | |
| A nonfiction book written about the | |
| robbery with lots of primary sources. | |
| A picture of Butch Cassidy riding away | |
| from the bank to his hideout. | |

TEACHER COPY

Butch Cassidy robbed a bank in the 1880s and then fled to his outlaw hideout! Many people were interested in the robbery and lots of sources were made.

Next to each source about the robbery, write which kind of source it is. Is it a primary source, a secondary source, or a folkloric/fictional source?



| A newspaper article from the day of the robbery that shows how much money was taken. | Primary Source |
|--|---------------------------|
| A bank employee's oral history of the robbery. | Primary Source |
| A movie about the robbery made in 2020. | Folklore/Fictional Source |
| A documentary movie about the robbery on PBS. | Secondary Source |
| A newspaper article about the robbery written 10 years after it happened. | Secondary Source |
| A folk song written about Butch Cassidy's robbery. | Folklore/Fictional Source |
| A historical fiction book written about the robbery. | Folklore/Fictional Source |
| A nonfiction book written about the robbery with lots of primary sources. | Secondary Source |
| A picture of Butch Cassidy riding away from the bank to his hideout. | Primary Source |

For students who prefer visual/tactile learning, cut out the following squares and have students physically sort out which source goes into which category.

For this version, show students a photo of Butch Cassidy, explain his history as a famous outlaw and the time period he operated in, and ask students to sort the following sources into three categories. If a student struggles with reading, pair them with a student(s) with strong reading skills and encourage them to focus on sorting after their friend helps them read each card. The of the activity is not to get to the right answer on the first try, it's to think critically about sources.

Group thinking, collaboration, and asking for help is encouraged.

| Oral history of someone who saw Butch Cassidy rob a bank. | Newspaper article from the day Butch Cassidy robbed a bank. | Picture of Butch Cassidy riding away from a robbery. |
|--|---|--|
| A movie made about the robbery made in 2020. | A folk song about Butch Cassidy's robbery. | A historical fiction book made about the day Butch Cassidy robbed a bank. |
| A PBS documentary about Butch Cassidy robbing a bank. | Newspaper article about the bank robbery written 10 years later. | A nonfiction book written by a historian about the bank robbery. |

TEACHER COPY

For this version, show students a photo of Butch Cassidy, explain his history as a famous outlaw and the time period he worked in, and ask students to sort the following sources into three categories. If a student struggles with reading, pair them with a student(s) with strong reading skills and encourage them to focus on sorting after their friend helps them read each card. The purpose of the activity is not to get to the right answer on the first try, it's to think critically about sources.

Group thinking, collaboration, and asking for help is encouraged.

Primary Sources

Oral history of someone who saw Butch Cassidy rob a bank.

Newspaper article from the day Butch Cassidy robbed a bank.

Picture of Butch Cassidy riding away from a robbery.

Secondary Sources:

A movie made about the robbery made in 2020. A folk song about Butch Cassidy's robbery. A historical fiction book made about the day Butch Cassidy robbed a bank.

Folkloric/Fictional Sources:

A PBS documentary about Butch Cassidy robbing a bank. Newspaper article about the bank robbery written 10 years later. A nonfiction book written by a historian about the bank robbery.

Primary Sources Hand Outs

"Outlaws Aided by Sympathizers." *Salt Lake Herald-Republican,* (Salt Lake City, UT). May 31, 1900. Retrieved from DigitalNewspapers.org

UUILAWN AUUEU BY SYMPATHIZERS BUSSING STATE Sent Out To Give Them Assistance. EXPECTED TO MAKE A DESPERATE STAND Believed They Planned To Avenge Currie's Death. Two Gangs of Desperadoes Are Still Pursued, One Going North and the Other South—Believed That Vernal Posse Will Be Able to Overtake the Three Men Headed For Brown's Park—River Will Stop

(Special to The Herald.)

the Fugitives.

Vernal, Utah, May 30.—Deputy Sheriff Joe Tolliver and posse returned here last night from the country east of Green River, where it was believed that three of the outlaw gang passed through from Hill Creek on Monday. headed for the Powder Springs country east of Brown's park.

The three outlaws ran into the cattle roundup between Jensen and the "K" ranch. The cowmen were in total ignorance of what had occurred on Hill cricek and consequently allowed them to pass on, although suspicious of their character. They were riding fine horses and were armed with the best of guns. A posse is now forming to go to Brown's Park and Powder Springs. It is believed that these three men seen east of elnsen are only part of the gang and that they are out in force and prepared to make a desperate stand.

Information has reached here from the inside that the killing of Currie a few weeks ago has aroused the whole gang to action and that a desperate revenge has been planned, that will henceforth deter the officers from invading the haunts of these fugitives from justice. **Outlaws Aided by Sympathizers.**

••••

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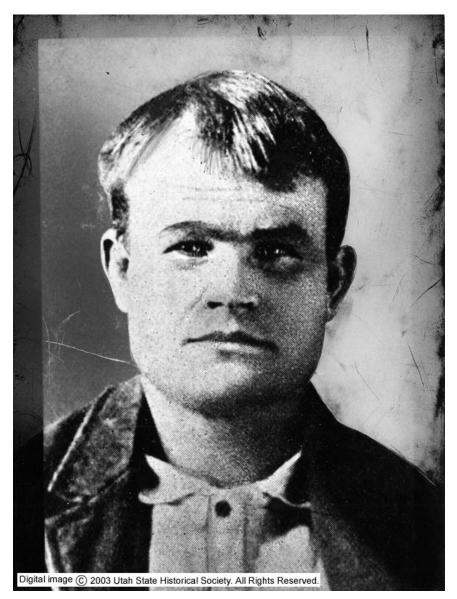


"Lone Ferryman is Victim of Robbers." *Salt Lake Telegram* (Salt Lake City, UT). July 9, 1909. Retrieved from DigitalNewspapers.org.

Lone Ferryman Is Victim of Robbers

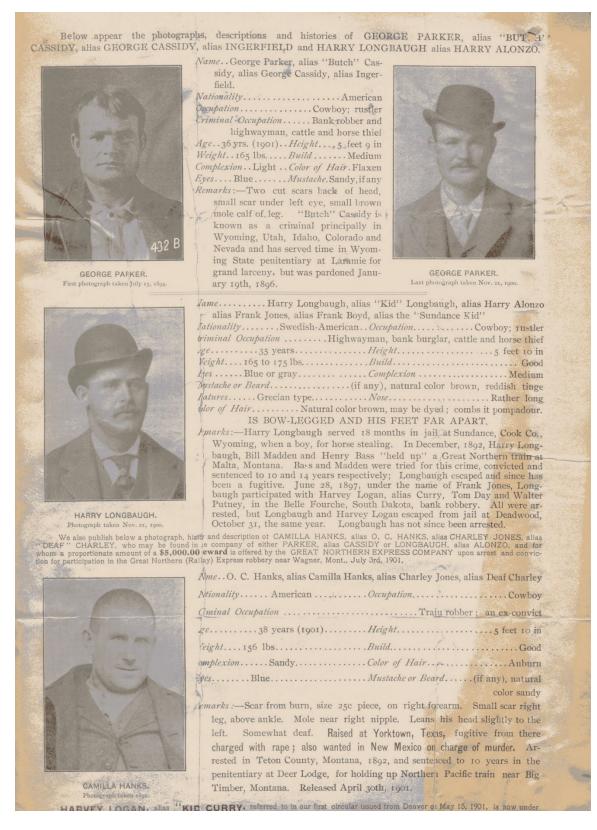
Rock Springs, Wyo., July 9—John Jarvie, well known throughout this section. Is believed to have been murdered by robbers at his store at Brown's Park, near Bridgeport, Utah. James Jarvie, a son, went to his father's place on July 7 but could not find the old man. There was blood on the floor in the house and traces of it were found on the way to the ferry, which was run by the storekeeper.

The old man kept a considerable amount of money in the store, as his place is far from a bank, and it is believed that robbers killed him in a fight for the money. Posses are hunting for the murderers. Four sons, James, John, Archie and Thomas, are among the leaders in the pursuit.



"George LeRoy Parker (Butch Cassidy)." George LeRoy Parker (Butch Cassidy), as he appeared when he entered the Wyoming Penitentiary on 15 July 1894, at age 27. From Utah State Historical Society Classified Photo Collection.

Butch Cassidy Wanted Poster, photograph, Date Unknown; (https://texashistory.unt.edu/ark:/67531/metapth19985/: accessed December 27, 2019), University of North Texas Libraries, The Portal to Texas History, https://texashistory.unt.edu; crediting Tarrant County College NE, Heritage Room.





"Cassidy, Butch-Cabin P. 1" Butch Cassidy's cabin in Little Hole above Brown's Hole. See "Outlaw Trail" by Kelly. Photo by: Russell Frazier. Charles Kelly, donor. From Utah State Historical Society.

ANOTHER BLOODY CHAPTER IN BROWN'S PARK HISTORY

(Special Correspondence.)

Vernal, July 15 .- Roy Colton, who came in last night from the Bromide mine, via Brown's park, confirms the report of the murder of Matt Rash, the well-known rancher of that section, and woolly in the extreme. by some unknown parties. The fact that Rash had long been a resident of murderers has yet been found. The that section meant his death by violent means sooner or later, as one by one the inhabitants of that wild section have bitten the dust. It is regarded here as simply one more link Brown's park country. in a chain of crime that stands unparalleled by any section on earth.

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Mr. Colton states that no clue to the chances are that the perpetrators will never be known outside of the small circle that are well versed in the inside history of society as it exists in the

The resident of Brown's park who has not at least been shot at is con-Brown's park has long been notori- sidered a very tame person, and it is ous as an abiding place for desperate | doubtful if such a one exists.

"Another Bloody Chapter in Brown's Park History." Salt Lake Herald-Republican (Salt Lake City, UT). July 18, 1900. Retrieved from DigitalNewspapers.org

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Brown's park has long been notorious as an abiding place for desperate men, and the news of a fresh murder causes no surprise, being considered as simply along the course of natural events. Every ranch in Brown's park has its graveyard, and the tales that are told of its bloody history are wild and woolly in the extreme.

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Josie <mark>Morris</mark> App<u>ears</u> in Life Magazine

An illustrated article about Mrs. Josie Bassett Morris, Jensen, is in the January 5 issue of Life Magazine.

Calling her the "Queen of the Cattle Rustlers," the photos show Mrs. Morris demonstrating the manner in which she would rustle a cow if she were a cattle rustler.

Several excellent shots of Mrs Morris are shown against a background of Joe Haslem's cattle and Ulntah County hills.

The photographs were made and the material secured for the article by a Life photographer and reporter last August.

"Josie Morris Appears in Life Magazine." *Vernal Express* (Vernal, UT). January 8, 1948. Retrieved from DigitalNewspapers.org

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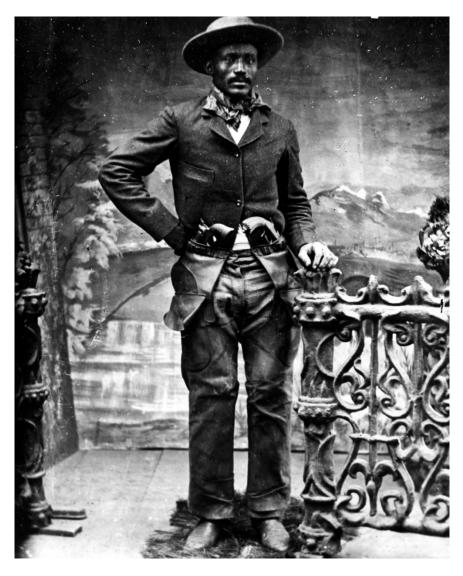


Digital Image © 2002 Uintah County Library. All rights reserved.

"Josie Bassett Morris." Morris was a known associate of the Wild Bunch gang in her younger years, and she and her sister, Ann Bassett Willis, were thought to have been cattle rustlers (thieves). Photo retrieved from Uintah County Library Regional History Center.



"Bennett, Jack-Grave P.1" Grave of Jack Bennett on the Bassett Ranch, Killed by a mob in retaliation for a murder of a local. Bennett built John Jarvie's stone house. Image from Utah State Historical Society.



"Blacks in Utah—Isom Dart." Cowboy, cattle rustler in Brown's Park. From Utah State Historical Society.

Secondary Sources Hand Outs

Grave marker for Jesse Ewing, prospector and outlaw. Buried at John Jarvie Historical Ranch. Photo taken by Kylee Ehmann June 1, 2019.

Text reads:

"Jesse Ewing. Prospector. B. D. 1885. Lived about 3 miles north of here at the head of 'Jesse Ewing Canyon.' Jesse Arrived in Brown's Park in 1867. He was ambushed by Frank Duncan in dispute over affections of Madam Forrestal. Buried by John Jarvie and Albert (Speck) Williams."



"Browns Park Contains Many Historical Structures." *Vernal Express* (Vernal, UT). May 12, 1982. Retrieved from DigitalNewspapers.org.

Browns Park contains many historical structures

One of the more fascinating sites administered by the Bureau of Land Management in Utah is the John Jarvie Historic Ranch in Browns Park near the Colorado and Wyoming borders. The area is named for John Jarvie, a Scotsman who settled in Browns Park in 1878 and soon established a store and post office, according to BLM spokesmen.

Jarvie's store was a regular stopping place for anyone traveling through or living in the three corners area. Some of the more notable visitors to the Jarvie property were outlaws Butch Cassidy, the Sundance Kid and Ann Bassett who was known as Queen of the Rustlers.

There are many historic structures and artifacts found on the 35 acre Jarvie property. Most notable among the remains are a stone house, dugout, blacksmith shop and livestock corrals. The stone house was built in 1888 by an outlaw who rode with the Wild Bunch. He was later hanged by vigilantes for his part in a local murder. A small collection of local artifacts and antiques still can be viewed within the house.

The BLM welcomes visitors to Browns Park and the Jarvie property, but cautions them that this remote area is accessible only by dirt roads. Because no services are available in the area, persons should carry extra gasoline, tire chains, food and water, and a shovel. Information about road conditions can be obtained from the BLM Vernal District Office.

Also at the Vernal District is a brochure containing historical information and a detailed map showing access roads into Browns Park and the Jarvie property. William L. Tennant. *John Jarvie of Brown's Park* (Salt Lake City: Utah State Office Bureau of Land Management, 1981). p. 25-26.

sarily guarantee social standing. Rich and poor alike were subjected to the same laws of nature and, thus, competed for survival as equals. Cooperation and mutual interdependence were mandated by the Brown's Park stage. Certainly personality conflicts and rivalries existed but they were reduced to pettiness by the necessities of the physical setting. While the Hoys and the Crouses might maintain a verbal feud, they could always count on mutual assistance in cases of illness or serious crisis. Genteel Southerner Elizabeth Bassett befriended and depended on ex-slave Isom Dart while ferryman and storekeeper John Jarvie occasionally employed known outlaws without fear for life or property. Such seemingly incongruous situations were merely Brown's Park's way of dealing with its physical setting.

Response to its physical situation gave Brown's Park a particular set of mores. The Brown's Park mores, in turn, created a society with a unique outlook on the nature of law. Two major related themes dominated the area from 1871 until 1913: cattle rustling and outlaw sheltering. The permanent residents in Brown's Park, who were considered to be law abiding by their peers, were nearly all cattle rustlers to some degree. Those who were not rustlers were content to allow known law breakers to inhabit their valley periodically. Brown's Park had developed its own code of ethics.

The code of ethics applied equally to the permanent "law abiding rustlers" and the transient outlaws. Both groups developed ethics which fit their situations and rejected those of society which did not. Both had a Robin Hood orientation. The rustlers would acquire stock at the expense of the larger outfits (consequently, approval of rustling diminished as the size of the rustler's own herd grew) and the outlaws would take from the rich (banks and

25

railroads) and give to the poor (themselves).⁴⁸ While Brown's Park tolerated thievery, it held life as sacred and would not condone murder. Jack Bennett paid with his life for his association with killers. John Jarvie's murderers, although they escaped, were pursued beyond the Park. Ann Bassett carried out a vendetta against a cattle baron suspected of ordering murder. While Brown's Park existed outside certain definitions of the law, it strictly adhered to its own code of ethics.⁴⁹

Beneath the periodic outbursts of excitement, the "existences in quiet" which made up the majority of the Brown's Park citizenry, continued their unheralded day to day activities which, as Morgan wrote, "express the shape of human experience."

Genealogy Research of the West

Was Tom Horn framed?

By Kerry Ross Boren

Several years ago I had the opportunity to do some in depth research into the life of Tom Horn, notorious "rustler exterminator," when actor Robert Redford wanted to do a movie of this controversial character's life. However, Steve McQueen was doing a similar film at the time and so my research never saw the screen, but it left me with a considerable amount of material and a burning question in my mind-was Tom Horn framed for the crime for which he was hanged?

In the early morning hours of July 8, 1900, Tom Horn shot the horse of Matt Rash in Brown's Park, to lure him from his cabin, and when Rash came out, Horn put three 30-30 slugs into him; in the lung, the hip, and his back.

Matt Rash, who was the nephew of the famous Davy Crockett, was also the finance of Queen Ann Bassett of Brown's Park, and Queen Ann readily accused Horn (who was using the alias of Jim Hicks) of the crime, but Horn laughed it off. Ann later confronted Horn alone in a cabin on Cold Springs Mountain and attempted to shoot him, but Horn dodged behind an upturned table and escaped. Ann soon after barely missed being killed when a 30-30 slug came through the window of her house and passed near her head.

On October 11, 1900, Horn ambushed and killed the Negro rustler, Isom Dart, a close personal friend of Ann Bassett. Shortly thereafter, George Bassett (Ann's brother) discovered a note pinned to his front door which read: LEAVE THE PARK WITHIN TEN DAYS OR SUFFER THE CONSEQUENCES. TOM HORN. George "left between days" and went to Alaska and did not refurn until he learned that Horn was dead, several years later.

On November 20, 1903, Tom Horn was hanged at Cheyenne, Wyoming for the alledged killing of 14 year old Willie Nickell. Young Willie had been shot at the gate of his father's ranch as he stopped and dismounted to open it. A rock had been placed beneath his head where he lay - a "calling card" employed by Horn to collect his \$500 bounty on rustlers. But young Willie Nickell was not a rustler.



TOM HORN

Subsequent events proved interesting. Queen Ann Bassett married one Hi Bernard, foreman of the Two-Bar Cattle Company, but divorced him when she learned that Bernard had been the man who paid Tom Horn the \$1,000 for the killing of Rash and Dart.

This writer had the privilege of knowing two of the participants in these events - Josie Bassett and James E. Harvey. Harvey had told me earlier that a man named Joe Good had killed Willie Nickell and not Horn. Josie Bassett confirmed it.

"His name was Jose Bueno, but we just called him Joe Good. He was a friend of mine and of Ann's for many years. He was the man who drove the wagon which hauled the body of my dead husband, Emerson Wells, from Linwood to Brown's Park for burial back in 1914.

Josie also related the circumstances under which Willie Nickell was killed and Tom Horn framed. She stated that Ann Bassett herself had hired Joe Good to go to Wyoming and kill Tom Horn, "by any method he could." Failing in this, whether through lack of opportunity or courage, Joe Good killed Willie Nickell and placed Horn's calling card under his head. Is the story true? Josie swore it was, and James E. Harvey informed me that Good used a rare caliber rifle not found in this region, an antique caliber. But it was a well known fact that Horn used only a 30-30 Winchester. Wouldn't the inquest prove that Horn was innocent?

Through rare good fortune, I obtained a copy of Horn's trial appeal transcript which had been handled by Douglas Preston, one time attorney general of Wyoming (and mouthpiece of Butch Cassidy), and left among his possessions in boxes in his garage after his death. The copy is extremely rare. The appeal was based on the fact that a weapon "other than a 30-30 caliber" had been used to kill Willie Nickell. Therefore, Tom Horn was certainly framed for the crime for which he was hanged.

Finally, however, the questions can also be asked, "Was Tom Horn really hanged?" Certainly there were witnesses to the hanging, but Queen Ann Bassett swore until her death that Horn was not the man who was hanged, and that he lived out his life in South America. Ada Piper, the sister-in-law of the outlaw Elza Lay, wrote in a letter dated 1963: "I knew that old murder (er) & dog of a man Tom Horn....Horn is, buried in Lander (Wyo.) and he was never hung, died from booze about four years ago...."

Did Tom Horn die on the gallows, or did he somehow survive to die an alcoholic in Lander, Wyoming in 1959? Maybe we will never be certain, but the thing of which we are now certain is that Tom Horn was framed for the killing of Willie Nickell. It's another little bit of history that should be corrected, so that the devil may get his dues.

Horn's cousin, Eva Horn Whitehead of Missouri, wrote to this writer a few years ago, stating:

"Cousin Tom was guilty of many of the killings which were attributed to him, but one thing which I and my family all knew for certain, because Tom told his brother before he died, he did not kill Willie Nickell!"

At Horn's hanging, he requested that the song "Life's Railway to Heaven" be sung. Perhaps it was appropriate, because he was indeed railroaded to the gallows. "Historical Dugout Site on Jarvie's Ranch (Campbell Ranch)" Report from Archeological Dig of June 29, 1981.

> HISTORICAL DUGOUT SITE ON JARVIE'S RANCH (CAMPBELL RANCH) Confirmation of Wall Damage Archaeological Dig of 6/29/81

1

<u>Location</u>: The dugout is located on the former Jarvie homestead about 70m to the west of the nearest standing building. The site, recently known as the Campbell Ranch, is located on the north bank of the Green River in the SWBs of the NEBs of the NWBs of Section 23 of T2N, R24E, of the Clay Basin, Utah, 1952 edition, map #6. See page #4 for detailed location.

<u>History</u>: The Jarvie homestead was started by Scotsman John Jarvie and his wife Nell around 1876. John Jarvie established a store on the location and, when Due Parsons died, John took over the running of the ferry built by Parsons.

Between 1881 and 1887 John Jarvie also, as the first postmaster in Brown's Park, ran the post office out of his store.

Famous outlaws such as Butch Cassidy, the Sundance Kid and Elza Lay and others reputedly used the dugout on Jarvie's place as a planning headquarters/hideout. Matt Warner worked as ferryman for Jarvie and might have used the dugout as sleeping quarters. The last owners of the Jarvie homestead, the Campbells, ran a little museum on the place mostly of early Brown's Park pioneer history and memorabilia.

<u>Purpose</u>: The purpose of the archaeological dig was to expose the north wall of the dugout and determine how extensively that wall had been damaged by midden pressure and also what buckling had occurred on the eastern wall and to the roof cover.

<u>Methodology</u>: A backhoe was provided by the Vernal District BLM and digging commenced from the western corner of the dugout. A trench was cut the length of the entire north wall. This trench extended approximately 2m. to the north of the wall and 3m deep, thus exposing the entire wall.

1



Jesse Ewing Canyon from: Utah Place Names

JESSE EWING CANYON (Daopett County) drains from Clay Basin into the Green River at Browns Park. Jesse Ewing was an eccentric, moody prospector, outlaw, and murderer of the 1860s who lived near the head of his namesake canyon. He was killed by Frank Duncan In a dispute over a mutual lady friend. >51,T2N,R24E,SLM to S7,T2N,R25E,SLM.

Bibliography:

Burroughs, John Rolfe. Where the Old West Stayed Young. New York: Bonanza Books, 1962. Dunham, Dick and Vivian Dunham. Flaming Gorge Country, The Story of Daggett Country, Utah. Denver: Eastwood Printing and Publishing Co., 1977. The Outlaw Trail. New York: Bonanza Books, 1938.

EXPLANATION OF SYMBOLS ...

1. An asterisk (*) following a place name indicates past or present inhabitation. 2. When a series of letters and numbers are present towards the end of an entry after the ">" symbol, the first group indicates section/township/range as closely as can be pinpointed (i.e., \$12,T35,R4W,SLM, or USM). A section equals approximately one square mile, reflecting U.S. Geological Survey topographic map sections. Because Utah is not completely mapped, some entries are incomplete. In this case, whatever information is available will be provided. The second group, when present, is altitude in feet followed by meters in parentheses [i.e., 6,000' (1,829m)]. Altitude is not included with canyons or deserts with varying altitudes.

SOURCE ...

Utah Place Names. Sait Lake City, Utah : University of Utah. University of Utah Press, 1990.

AUTHOR Van Cott, John W.

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Press at: http://www.uofupress.com



"Morris, Josie Bassett, Ranch Complex." Utah National Register Collection. From Utah Division of State History.

| CLASSIFIED | | | | | | |
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| (Attach 4" | x 5" | Black | and | White | Photo | ograph) |

| REGION RMRO PARK/AREA NAME Dimosaur National Mon. PARK NUMBER 1400 | | | |
|--|--|--|--|
| STRUCTURE NAME Josie Bassett Morris CabinSTRUCTURE NUMBER HS-200 (SMT 1) | | | |
| LOCATION OF STRUCTURE Solit Mountain, UT 7.5' Quad PARK LOCATION CODE PG | | | |
| NATIONAL REGISTERDATE: _/ / MANAGEMENT CATEGORY: (A) (B) (C) (D) | | | |
| NPS LEGAL INTEREST Fee MANAGEMENT AGREEMENT: NO | | | |
| Check all of the following categories for which MPS has treatment responsibility: | | | |
| Stabilization(<u>Mx</u> Cyclic Maintenance(<u>X</u> Routine Maintenance <u>(</u>) Approved Ultimate Treatment; | | | |
| (ROCKY MOUNTAIN REGION USE ONLY) | | | |
| APPROVED ULTIMATE TREATMENT OR RESOURCE MANAGEMENT PLAN, CULTURAL COMPONENT DESIGNATION | | | |
| Preservation (PP) Restoration (RR) Reconstruction (CC) Adaptive Preservation (AP) Adaptive Restoration (AR) Adaptive Reconstruction (AC) Neglect (NG) Remove (RM) No Approved Treatment (NO) | | | |
| Approval Document()Document Date: / / Estimated Treatment Costs | | | |
| Stabilization: \$Date: / /Estimate: Level of Approved Treatment: \$Date: / /Estimator: (Region) (DSC) | | | |
| STATEMENT OF SIGNIFICANCE: | | | |
| Date of Construction: _/ / 1924 Date of Alterations: _pdriddic-through 1960 Architect/Designer: | | | |
| Evaluation of Structure: Historic Theme Contributing Non-Contributing | | | |
| National Register Criteria: A_B_C_D_ (Include integrity statement) Cabin in original location, aside from protective steps taken by NPS & natural | | | |
| deterioration from ground water, resource retains integrity. Represents late 19th & early 20th century subsistence, tanch. Nearby landscape adds to "feeling". | | | |
| Bibliography: Josie B. Morris Interviews, Dinosaur NM: Scott Chew personal communications with SF Mehls, 5/17/85; Land Files, Dinosaur NM. Representation in Other Surveys: 1975 LCS Survey | | | |
| If structure has been removed, how? OT/Original Location Date: / / | | | |
| Report prepared by: Steven F. Hehls Date: 5/15/85 | | | |
| | | | |

Outlaw store excavated



The colorful history of the John Jarvie property in Browns Park is being uncovered by the slow excavation of what is believed to have been the center of his enterprising stewardship—his store and house.

Four BLM employees have been at the site this summer digging out twometer square sections where the store house are believed to be.

In 1873 John Jarvie moved with his new bride to Browns Park, then noted as a hideout for outlaws and rustlers. Jarvie, a scotman, ran a saloon in Rock Springs, Wyo. before he moved to Browns Park. He and his wife lived six months in a low ceiling dugout while they built their store and house.

The dugout was built from railroad logs which washed down the Green River during a flood. The Jarvie property is idealy situated about 100 feet from the north bank of the river.

During its most popular time there were over 5,000 head of cattle in the Browns park area. Daily mail service to the park was a link between Vernal and Rock Springs.

"They had better mail service then than we do now," said Ted Sinclear, care-taker and tour guide of the property.

Because the Browns Park area was used. by famous outlaws as Butch-Cassidy, the Sundance Kid, and Matt Warner, Jarvie is said to have been aquainted with them and his dugout was allegedly used as their hideout.

The purpose for the excavation of the store is the desires of many people-to create an on-site museum of the area, said Earl Smith, BLM.

According to Pam Smith, archaeologist at the dig, progress in excavating the store is slow because of the hardness of the soil

During the summer two volunteer MM workers and two archeaologist have D been at the site.

"I wish we could say that we have found the pistol of Butch Casidy, but most of the artifacts we've uncovered have been small items," Miss Smith said showing some of the nails and a Levi pant's snap.

Eventually the storehouse will be recreated as a living museum, said David Soupe, BLM recreation advisor.

There are four graves on the Jarvie property. Two of the men were drown in the river. The other two graves belong to Jesse Ewing a prospector, and a Mr. Robinson who Ewing killed in a squabble over a mining claim.

"Ironically Jarvies buried the two side by side," Susan Zeller, volunteer at the dig said.

In 1909 Jarvie was murdered and his store ransacked by two transient workers from Rock Springs, Wyo. His body was placed in a boat and pushed out into the Green River. It was discovered eight days later just above the Gates of Lodore in the eastern end of Browns Park. He is buried in the Ladore Cemetery, and his murderers were never captured.

In December last year, the Bureau of Land Management purchased the 35 acres which belonged to Jarvie and now conducts tours of the property, and excavation.

The most notable of the structures on the property is the stone house built in 1888 by John Bennett, who learned to be a mason while in prison. Bennett was hung by vigilantes for his part in the murder of a local man. The plank from which he was hung is now in the stone house as part of a small museum. Under the plank is a quote from the local newspaper reporting the hanging as being "jerked to glory."

It's a two-hour-ride into Browns Park which is accessable from Diamond Mountain, northwest of Vernal or from Dutch John. Tours of the Jarvie property are conducted 8 a.m. to 5 p.m. Monday through Friday.



SOIL TAKEN from the excavation is screened to locate any artifacts taken from the dig at the Jarvie Ranch.

"Outlaw Store Excavated." Vernal Express (Vernal, UT). July 23, 1982. Retrieved from DigitalNewspapers.org

Brandon Johnson for Utah Humanities © 2008, "Isom Dart," Utah Stories from the Beehive Archive, accessed December 28, 2019, https://www.utahhumanities.org/storiesOld/items/show/132.

Title

Isom Dart

Description

The mysterious murder of an African-American rancher in Daggett County.

In 1900, African-American rancher Isom Dart was gunned down while walking from his cabin to his corral in Brown's Park, a valley that straddles the borders of Utah, Colorado, and Wyoming. No one was ever charged with Dart's murder, but it's widely thought that his killer was legendary hired gun and range detective Tom Horn.

According to historical sources, Darts' real name was Ned Huddleston, a former slave from Arkansas, who after gaining his freedom turned to cattle rustling, first in Mexico and Texas and then in Colorado. The life of a cow thief, however, seemed eventually to run its course with Huddleston. He changed his name to Isom Dart, moved to Browns Park, and formed an alliance with a group of small-scale cattle ranchers, including Matt Rash and Ann Bassett, to resist incursions by powerful cattle barons connected with the Snake River Stock Growers Association. The Association charged Dart and his friends with stealing their cattle and altering their brands. When Dart and other Browns Park ranchers began receiving threatening notes, likely from the stock growers association, advising them to leave the region or face grim consequences, Dart defiantly stayed put.

Within weeks of the warnings, two men found the decomposing body of Dart's friend Matt Rash in his cabin. He had been shot at least twice in the torso. Locals suspected that Rash's murderer was a drifter named James Hicks, who mysteriously left the area right around the time Isom and others began receiving the ominous notes telling them to make themselves scarce. When Hicks popped up again after Rash's death, whispering that Dart was the dead man's killer, the Brown's Park community refused to believe it. Their support, however, couldn't save Isom Dart. That fall, he was ambushed, and fell dead from gunshot wounds only a few steps from his cabin.

Rumors later surfaced that Hicks, the presumed assassin, was none other than Tom Horn, who had been hired by the Snake River cattle barons to snuff out opposition from Browns Park's lesser ranchers. Ironically, Horn was later hanged in Wyoming for the alleged murder of teenage sheepherder Willie Nickell.

"John Jarvie Historic Ranch." U.S. Department of the Interior Bureau of Land Management. <u>https://www.blm.gov/learn/interpretive-centers/john-jarvie-historic-ranch</u>. Accessed December 28, 2019.



JOHN JARVIE HISTORIC RANCH

Explore where the wild west is still wild, where Butch Cassidy and the Sundance Kid hid out from the long arms of the law, where traders made a mint, and where a business complemented the turn-of-the-century frontier life in Brown's Park.

In 1880, John Jarvie, a Scotsman built a ranch along the Green River to offer store goods to those that lived or traveled in this wild territory. Jarvie chose this location due to a naturally occurring river crossing which was used by Indians, fur trappers, travelers, and local residents. At its height, the Jarvie ranch operation included a store, post office, river ferry, and cemetery.

At the historic ranch, you'll find the stone house, which is a one-room, rectangular building. It was built by outlaw Jack Bennett, using masonry skills he learned in prison. This is also the museum where displays decorate the walls and a video of the history of the ranch can be viewed. You'll also get to duck inside the two-room dugout where John and his wife Nellie first lived. It is built into a hillside with a south-facing entrance overlooking the Green River. You can stroll over to the blacksmith shop and corral, which were constructed using hand-hewn railroad ties which drifted down from Green River, Wyoming, during high water. Finally, you get to pretend shop at the general store where Mr. Jarvie sold goods, which is a replica of the original which was built in 1881. It is furnished with many artifacts from the Jarvie period and also contains the original safe which was robbed from the men that murdered John Jarvie.

Developed camping is available at Bridge Hollow or Indian Crossing campgrounds nestled along the Green River, adjacent to the ranch. There you'll have several launch points for floating the Green River. If you're a fisherman, you won't want to miss the blue ribbon fishing opportunity from the Flaming Gorge Dam down to the Colorado State line.

QUICK LINKS

BROCHURE » JUNIOR EXPLORER ACTIVITY BOOK »

VOLUNTEER

The ranch is in need of volunteers to assist with interpretation, general maintenance and Respect and Protect messaging.

Visit Volunteer.gov or call the Vernal Field Office for more info.

RESPECT AND PROTECT



FLICKR ALBUM

Other Resources

If you have time, or if your students are interested, here are additional resources related to the outlaws who visited in and around Brown's Park. These sources require internet connection to watch/listen to, so ensure that all of your students have easy internet access at school and at home if you decide to assign them out of class or as part of the lesson plan as a whole.

- Utah Famous, Episode 1 "Butch Cassidy" <u>https://podcasts.apple.com/us/podcast/butch-</u> cassidy/id1482593435?i=1000452587921
- Stuff You Missed in History Class, "SLCC Live! Robber's Roost, Outlaw Hideout" <u>https://www.iheart.com/podcast/stuff-you-missed-in-history-cl-</u> 21124503/episode/slcc-live-robbers-roost-outlaw-hideout-30207415/
- The History Guy, "Butch Cassidy, The Sundance Kid, and Etta Place: Part 1" https://www.youtube.com/watch?v=85HkuJ1Zliw
- The History Guy, "Butch Cassidy, The Sundance Kid, and Etta Place: the Final Chapter" <u>https://www.youtube.com/watch?v=lgF3MRxpx2E</u>
- Butch Cassidy and the Sundance Kid (1969) Rated PG
- Utah Digital Newspapers https://digitalnewspapers.org/

Related to Outlaw Life in the American West

- Footnoting History, "Who was Bass Reeves?" <u>https://www.footnotinghistory.com/home/who-was-bass-reeves</u>
- Stuff You Missed in History Class, "Who was the real Lone Ranger?" <u>https://www.iheart.com/podcast/stuff-you-missed-in-history-cl-</u> 21124503/episode/who-was-the-real-lone-ranger-30208074/
- Adam Ruins Everything, "Adam Ruins the Wild West"
 <u>https://www.trutv.com/shows/adam-ruins-everything/blog/adams-</u>
 <u>sources/adam-ruins-the-wild-west.html</u>

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"Bennett, Jack-Grave P.1" Grave of Jack Bennett on the Bassett Ranch, Killed by a mob in retaliation for a murder of a local. Bennett built John Jarvie's stone house. Image from Utah State Historical Society.

"Blacks in Utah—Isom Dart." Cowboy, cattle rustler in Brown's Park. From Utah State Historical Society.

Brandon Johnson for Utah Humanities © 2008, "Isom Dart," Utah Stories from the Beehive Archive, accessed December 28, 2019, <u>https://www.utahhumanities.org/storiesOld/items/show/132</u>.

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"Cassidy, Butch-Cabin P. 1" Butch Cassidy's cabin in Little Hole above Brown's Hole. See "Outlaw Trail" by Kelly. Photo by: Russell Frazier. Charles Kelly, donor. From Utah State Historical Society.

"Echoes from the Dust Early Brown's Park Outlaw Was Robin Hood to Needy." *Vernal Express* (Vernal, UT). April 25, 1974. Retrieved from DigitalNewspapers.org.

"Echoes from the Dust Josie Morris, Brown's Park Pioneer Tells of Early Day History." *Vernal Express* (Vernal, UT) August 1, 1974. Retrieved from DigitalNewspapers.org.

"Echoes from the Dust Matt Warner Ranch May Become Play Center." *Vernal Express* (Vernal, UT). March 14, 1974. Retrieved from DigitalNewspapers.org.

"Echoes from the Dust Stirring Wild West Episodes Abound in Early History of Brown's Park Cattlemen." *Vernal Express* (Vernal, UT). June 27, 1974. Retrieved from DigitalNewspapers.org.

"Echoes from the Dust Stirring Wild West Episodes Abound in Early History of Brown's Park Cattlemen." *Vernal Express* (Vernal, UT). July 18, 1974. Retrieved from DigitalNewspapers.org.

"Echoes from the Dust Want Murder of Flynn Apprehended." *Vernal Express* (Vernal, UT). October 17, 1974. Retrieved from DigitalNewspapers.org. "George LeRoy Parker (Butch Cassidy)." George LeRoy Parker (Butch Cassidy), as he appeared when he entered the Wyoming Penitentiary on 15 July 1894, at age 27. From Utah State Historical Society Classified Photo Collection.

Grave marker for Jesse Ewing, prospector and outlaw. Buried at John Jarvie Historical Ranch. Photo taken by Kylee Ehmann June 1, 2019.

"Historical Dugout Site on Jarvie's Ranch (Campbell Ranch)" Report from Archeological Dig of June 29, 1981

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"Jesse Ewing Canyon." From Utah Place Names, UtahEducationNetwork.org

"John Jarvie Historic Ranch." U.S. Department of the Interior Bureau of Land Management. <u>https://www.blm.gov/learn/interpretive-centers/john-jarvie-historic-ranch</u>. Accessed December 28, 2019.

"Josie Bassett Morris." Morris was a known associate of the Wild Bunch gang in her younger years, and she and her sister, Ann Bassett Willis, were thought to have been cattle rustlers (thieves). Photo retrieved from Uintah County Library Regional History Center.

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"Outlaws Aided by Sympathizers." *Salt Lake Herald-Republican,* (Salt Lake City, UT). May 31, 1900. Retrieved from DigitalNewspapers.org

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John Jarvie Historic Ranch: Ranching in Brown's Park

Authored by: Amanda Scheuerman

Grade 4-6

LESSON PLAN DETAILS

<u>Time Frame:</u> 60-90 minutes or two class periods

Group Size:

• 4-5 students

Materials:

10 Marbles, 1 Manila Folder, pencils, paper, rope or string for each student.

Life Skills:

Team work, language arts, cultural inclusivity, agricultural literacy.

Intended Learning

Outcomes:

Students will understand ranching culture in the American West and the importance of ranchers in the expansion of the United States.

Jarvie Ranch Ranching in Brown's Park Lesson Plan

By: Amanda Scheuerman

This lesson plan is intended for fourth to sixth grade.

SUMMARY

Students will gain an understanding of ranching in Colorado, Wyoming, and Utah between the 1880s and 1920s. Ranching was in important aspect of the American West and is significant in the history of the United States. Ranching gave food and labor to the growing country. With the advent of the railroad, ranching expanded throughout the continent. Ranching also has a significant impact on the environment, changing the ecosystems wherever it went. In 1946, the Bureau of Land Management was established to manage federal lands. The BLM, along with scientists and ranchers, developed management programs to protect public lands.

Students will learn about cattle drive management. They will have an opportunity to explore how ranching changed over time. Students will also learn about the life of a cowboy.

Relevant Core Standards

Utah Standards 4th Grade

- Standard II: Objective 1 Describe the historical and current impact of various cultural groups on Utah.
- Standard II: Objective 2 Describe the ways Utah has changed over time.

Colorado Standards 4th Grade

- Standard 1: History 2. Analyze key historical periods and patterns of change overtime within and across nations and cultures.
- Standard 4: Civics 2. Analyze origins, structure, and functions of governments and their impacts on societies and citizens.

Wyoming Standards 4th Grade

- Social Studies; Content Standard 2 Culture and Diversity Students demonstrate an understanding of the contributions and impacts of human interaction and cultural diversity on societies.
- Social Studies; Content Standard 4 Time, Continuity, and Change Students analyze events, people, problems, and ideas within their historical contexts.
- Social Studies; Content Standard 5 People, Places, and Environments Students apply their knowledge of geographical themes (location, place, movement, region, and human/environment interactions) and skills to demonstrate an understanding of interrelationships among people, places, and environments.

Background for Teachers

Prior to teaching this lesson, teachers should know about the history of ranching in Brown's Park. (See Appendix A). It is important to remember that while ranchers and cowboys were expanding into the American West, American Indian populations were dispossessed of their lands. These lands became places where ranchers drove the cattle. For more on Ute land dispossession, see the Ute Map lesson plan in this curriculum.

Background for Students

Prior to beginning this lesson, students may not have an understanding of what it was like to live as a cowboy or to go on cattle drives. During this lesson, students will learn about the different roles that ranchers and cowboys had on the range, the importance of cattle brands, and about cowboy songs.

Lesson Plan Procedure

Day One

 The Cattle Drive.
 Students will learn about the importance of teamwork on historic and modern-day cattle drives.

Day Two

 Ranch Life.
 Students will gain an understanding of ranch life by studying the tools used by cowboys and the things they did in their leisure time.

Background: Ranching in Brown's Park and the American West



The history of ranching in Brown's Park is directly tied to that of Westward (and Northward) expansion. One of the earliest known introductions of livestock into the American West came with Spanish explorer Francisco Coronado. Traveling northward from Mexico, Coronado brought with him a large amount of livestock including sheep, cattle, horses, and mules. By the early 1700s, the northern reaches of Mexico, which included modern day Arizona, Texas, and New Mexico were ranching epicenters. Mountain men were known to winter their cattle in Brown's Park in the beginning of the nineteenth century.⁹ Ranching grew exponentially as Mormon pioneers trekked West. However, with the Gold Rush (1848-1865) and the Civil War (1861-1865) came a large increase in the livestock industry. The cattle industry particularly experienced a "livestock boom" when the Transcontinental Railroad was completed in 1869.¹⁰

Ranching in the Uintah Basin and the Colorado Plateau followed a different path than in Texas. In Texas, longhorn cattle were the primary type of livestock. Ranchers had large numbers of cattle that would then be driven north to slaughter houses. Further West, livestock grazed in communal rangelands and in smaller numbers until the 1860s. It was not until the 1870s and 1880s that ranching in Utah, Colorado, and Wyoming started to become influenced by Spanish and Texas industry. At this point, livestock steadily increased in the region.¹¹ Ranchers began to prosper as the industry burgeoned, however disputes erupted

 ⁹ From Don D. Walker, "The Cattle Industry of Utah, 1850-1900: An Historical Profile, Utah Historical Quarterly, Volume 32, Number 3, (Summer 1964) pg. 182.

¹⁰ From Elli I. Leydsman McGinty, "History of Utah," *Rangeland Resources in Utah*, Logan, Utah State University, pg. 7.

¹¹ From Walker, "The Cattle Industry of Utah, 1850-1900," pgs. 183-184.

between small and large herds. This expanded into the Colorado Plateau and the Uintah Basin.

Cattle ranching was a lucrative business. Entrepreneurs could invest in livestock at a relatively low cost. They allowed the cattle to graze on the grasses that grew naturally in valleys and plains. After fattening up the cattle, ranchers would hire cowboys and hands to drive the cattle to major cities further north. The process became streamlined with the completion of the Transcontinental Railroad. Cowboys could drive cattle toward major train lines where they would be shipped for slaughter. Those hoping to get rich quickly often turned to the cattle industry.

Cattle and sheep were in high demand and by the 1890's the western rangeland was considered to be at full capacity. With an estimated 20 million sheep and 26 million head of cattle in the Western United States, it comes to no surprise that the land was in high demand. Resources were becoming depleted with astonishing speed. With this said, however, sheep had a more drastic effect on the shrubs and grasslands, leading to battles between sheep and cattle ranchers. It quickly became clear that new land management strategies were necessary if the region were to keep up with the high demand for livestock. Overgrazing led to the destruction of watersheds leading to flooding in many areas.

In order to combat the devastating effects of overgrazing, the federal government initiated a plan to scientifically manage rangelands at the turn of the twentieth century. Professional scientists were sought out to control the use of the land. The scientists studied livestock and grazing. Professional range managers developed new techniques for the sheep and cattle industry. The federal government found, through these studies, that the rangeland was overgrazed and thus implemented reduction plans. Cattle were no longer permitted to graze on rangelands during the winter months and the grazing lands were to be utilized in a cyclical nature. In 1934, the Taylor Grazing Act regulated grazing on public lands and created the Grazing Service. The Taylor Grazing Act also designated grazing districts on public lands requiring permits or leases for range usage.¹² On July 16, 1946, the Grazing Service and the General Land Office merged to create the Bureau of Land Management (BLM). The length of leases and permits were reduced to ten years in 1976 with the implementation of the Federal Land Policy and Management act. The BLM was given the responsibility to inventory and improve conditions and manage rangelands.

¹² From McGinty, "History of Utah," *Rangeland Resources in Utah*, pgs. 7-8.

| Livestock | Farm animals such as cattle, sheep, and horses. | |
|---------------------------|--|--|
| Rangeland | Open regions used for grazing livestock. | |
| Cattle Drive | Moving cattle from one area to another, typically to a market or railway head. | |
| Overgrazing | Excessive grazing that causes environmental damage. | |
| Bureau of Land Management | An agency within the U.S. Department of the Interior that manages federal lands. | |
| Corral | A pen for livestock. | |
| Cattle Brand | A mark designating the owner of the cattle. | |
| Honda Knot | A knot used to make a lasso. | |
| Cattle Rustler | A person that takes cattle and claims it as their own, often through rebranding. | |
| Scientific Management | The use of scientists and professionals in creating scientifically based management practices. | |

Activity: The Cattle Drive

It takes lots of work to run a cattle drive and teamwork was very important. There are several positions on a cattle drive and each is important. Positions include the Trail Boss, Cook, Point, Swing, Flank, Drag and the Wrangler.

- The Cook: The cook rides about a mile ahead of the cattle drive. It is the cook's job to find a place to stop for the night. The cook also prepares food for everybody on the cattle drive. Things that might be served include beans, combread (or biscuits), bacon, and coffee.
- The Trail Boss: The trail boss is at the head of the cattle drive. This position is in charge of determining the direction and speed that the cattle move.
- The Point: The point is toward the head of the cattle during the drive, just behind the trail boss. They make sure that the cattle follow the trail boss. They help direct the cattle speed and direction based on the trail boss's orders.
- The Swing: Those in the swing position ride closely to the herd. They travel about a third of the way down from the point. The swing's purpose is to keep cattle following the point. They constantly look for cattle that might stray from the herd.
- The Flank: The flank position is toward the rear third of the herd. They back up the swing and the point. They also keep the cattle herd grouped together and in a tight position/
- The Drag: The drag position is located at the back of the cattle herd. They keep the herd going by pushing slower animals along.
- The Wrangler: It is the wrangler's job to take care of the horses. It is his job to make sure that the wagons are well repaired. He also helps the cook collect firewood.

The Cattle Drive: 10 marbles, 1 manila folder, cattle drive position handout

Step 1: Group the students in groups of 4-5 students. Have one person in each group hold a closed manila folder. Place 10 marbles on top of the folder. The marbles represent cattle on a drive. The students play the role of cowboy. Instruct the students not holding the folder to "handle the cattle," meaning to place fallen marbles back on the folder. Have the group navigate around the classroom, making a route around the tables and chairs. As the marbles fall off, students will gain a sense of how difficult it is to guide cattle on the drive and how important the cowboys are.

Step 2: After every group has the chance to try the marble activity explain the different roles on a cattle drive (See handout titled Cattle Drive Positions). Explain that each role was very

important on the cattle drive. Teamwork was crucial. Describe the positions as explained above.

Step 3: Explain to the students that they are to choose a position on the cattle drive that they would like to work as. Give the students the option to choose any position, then have them write about why they would like to have that cattle drive position.

Questions for students:

- What is a cowboy?
- What is a cattle drive?
- What roles are there on a cattle drive?
- What tools do you think cowboys use?
- What did cowboys eat? (bacon, beans, biscuits, and coffee-all foods that travel easily and can be cooked over a campfire)
- What dangers could a cowboy face?

The Modern Cattle Drive

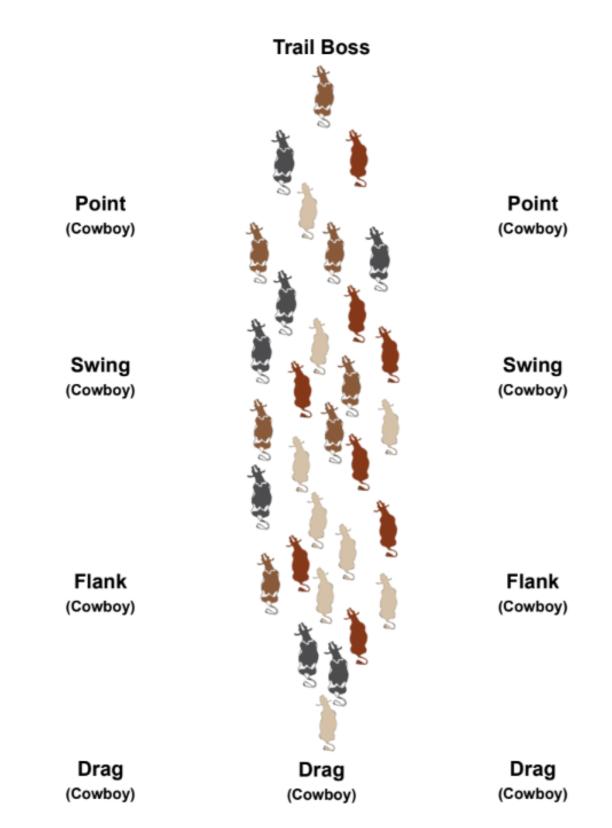
Have the students watch the attached video about a modern-day cattle drive in Utah. Explain that cattle drives continue to this day:

HTTP://WWW.MYAMERICANFARM.ORG/VIDEOS/VIDEO_PLAYER.PHP?VURL=AH611_C ATTLEDRIVE.MP4

Question for students:

- What do we use cattle for? (beef, pharmaceuticals, tallow which is used for making soaps, lubrication, and candles)
- Why were so many people needed for the cattle drive, as shown in the video?
- What do modern cowboys wear?
- What skills do cowboys need?

Cattle Drive Positions



Activity: Cattle Branding

Cattle Branding: pencils, paper, "Marks and Brands" attachment

Step 1: Have the students watch the attached video about cattle branding: https://www.youtube.com/watch?v=ImDR67pJyLU

Step 2: Explain that cattle brands helped ranchers identify which cattle were theirs. This also protected them from rustling (cattle theft). Cattle brands were usually chosen from symbols that meant something to the cattle owner's family.

Step 3: After finishing the video, show the students the attached "Marks and Brands" image. These are examples of actual cattle brands used in Brown's Park and other regions in Utah. Allow the students to design their own cattle brands. Instruct the students to think of a symbol that is important to them or to their families. The students' cattle brands can be created with pencil and paper. After designing their brands, have the students explain, in their own words, why they chose their brand.

Discussion Questions:

- What is cattle rustling?
- Why are brands useful?
- Who were the first people to brand cattle?

Cattle Brands: Grades 7-12

Have the students watch this brief video about cattle branding which explains the history of the cattle brand as well as the different types of brands used: https://www.youtube.com/watch?v=ImDR67pJyLU.

Using a projector, display the attached "Marks and Brands" file.

Explain to the students that they are cattle ranchers. It is their job to design their own cattle brand. Explain that cattle brands are designed to represent something that is important to the cattle rancher. These were initials, symbols, and simple images. This will be done in the form of a personalized stamp that they can keep and use.

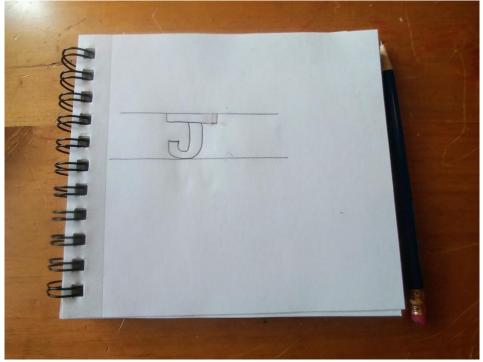
Materials:

"Marks and Brands" attachment; Paper; Artgum Erasers; X-acto Knives; Pencil; Ink Pad

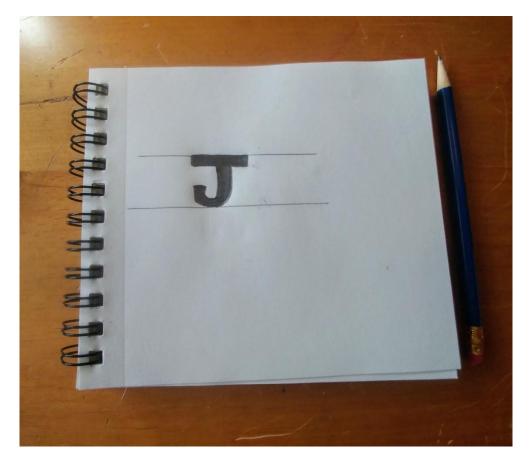


Grade 7-12 Extension: Important note about safety: Please ensure that the students are aware of how sharp X-acto knives are. Teachers should take all necessary precautions to make sure that students are safe.

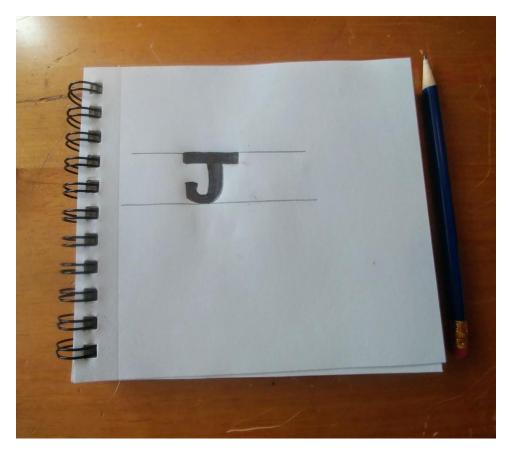
1. With the pencil and paper, have the students design their cattle brand logo. The simpler the logo, the easier it will be to carve out.



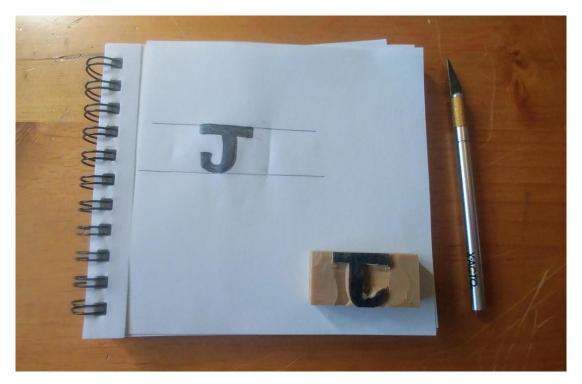
2. Darken the inside of the image with a pencil, making the image as dark as possible.



3. Place the darkened image on top of the Artgum and rub the entire image onto the Artgum. This will create the *reverse* of the logo.



4. Using the X-acto knife, safely carve out the cattle brand logo. The students will need to carve away excess material to get to their logo. This will be the brand. Be sure to leave space to be able to handle the stamp.



5. The students now have their own cattle brand stamp!



| 40 | MARKS AND BRANDS. | | | | | | MARKS A | ND BRANDS. | BRANDS. | |
|----------|-----------------------|--------------------------|---|--|-----------|---------------------|------------------------|--------------------------------------|-------------------------------|--|
| BRAND | S PLACE OF BRAND | · DATE WHEN RECORDED. | | RESIDENCE. | BRANDS. | PLACE OF BRAND. | DATE WHEN RECORDED. | OWNER. | KESIDENCE. | |
| H5 | Right shoulder | April 9, 1887 | William F. Hanley | Sugar House Ward, Salt Lake Co. | IE | Left ribs | July 2, 1886 | John E. Ingles and William Eccles | Scofield, Emery Co. | |
| H7. | Right ribs | Mar. 22, 1887 | Henry Atkinson | South Bountiful, Davis Co. | IF | Right shoulder | May 21, 1887 | 100 100 T | | |
| н | Left hip or thigh | Dec. 20, 1886 | Elliott Hartwell | Salt Lake City | 1G | Left hip or thigh | | Isaac Ferguson | Big Cottonwood, S. L. (| |
| Н | Right thigh or ribs | Oct. 7, 1887 | H. B. Kleinman | Toquerville, Washington Co. | (10)320 | | Sep. 21, 1887 | J. W. Griffiths | Union, Salt Lake Co. | |
| H7 | Left ribs | Oct. 7, 1887 | Hans Olsen | Spanish Fork, Utah Co. | HH T | Either hip or thigh | Aug. 2, 1887 | Alvin W. Hatch | Juab, Juab Co. | |
| FP | Left hip or thigh | April 5, 1888 | C. O. Hansen | Spanish Fork, Utah Co. | Ih | Left hip or thigh | Aug. 16, 1886 | Ira Hayden | Moab, Emery Co. | |
| HFJ | Left ribs, cattle | Nov. 7, 1888 | Heber F. Johnson | average sees covers | Н | Left hip or thigh | Mar. 30, 1888 | Isaac R. Hardman | Lehi, Utah Co. | |
| HL | Left hip or thigh | | | Payson, Utah Co. | ĪH | Left thigh or ribs | Feb. 8, 1887 | William B. Hughes | Spanish Fork, Utah Co. | |
| | | Mar. 11, 1887• | | Granger, Salt Lake Co. | IH | Left ribs | April 5, 1888 | George Hansen | Spanish Fork, Utah Co. | |
| HP | Left hip or thigh | Feb. 9, 1885 | William Henriod and Isaac H. Preston | Deep Creek, Tooele Co. | IJ | Left shoulder | Feb. 8, 1888 | Jens Jensen | Moroni, Sanpete Co. | |
| HLI | Left hip or thigh | Mar. 23, 1886 | Hans E. Larsen | Spring City, Sanpete Co. | 11 | Left hip or thigh | June 16, 1887 | Isaac Jones | Cedar City, Iron Co. | |
| HMP | Left hip or thigh | May 3, 1888 | H. M. Pearson | Sandy, Salt Lake Co. | | Right hip or thigh | Sep. 26, 1885 | William I. Layton | Layton, Davis Co. | |
| HOS | Left hip or thigh | Nov. 12, 1887 | Hans Ottesen | Spanish Fork, Utah Co. | <u>1L</u> | | | | • | |
| HOY | Right or left hip | Oct. 21, 1886 | Henry Hoy | Brown's Park, Utah | IP | Right hip or thigh | July 1, 1885 | Isaac Price | Laketown, Rich Co. | |
| HOY | Right or left ribs | Aug. 17, 1886 | J. S. & V. S. Hoy | Brown's Park, Utah | IP | Left ribs | Feb. 21, 1888 | George Price | Charleston, Wasatch Co. | |
| ΗP | Left hip or thigh | April 21, 1887 | - | Big Cottonwood, S. L. Co. | IT | Left hip or thigh | June 2, 1885 | Isaac Petersen | Scipio, Millard Co. | |
| T | Right hip or thigh | May 2, 1887 | J. D. Irvine | Annual states and an annual state of the states of the sta | IP | Left hip or thigh | Jan. 5, 1887 | Isaac Preston | Muncy, White Pine Co., Nevada | |
| Î | Left shoulder | May 29, 1888 | | Payson, Utah Co. | IP | Left hip | May 18, 1886 | Isaac Pulman | Logan, Cache Co. | |
| IB | Left shoulder | | • | Oasis, Millard Co. | IS | Left thigh | Sep. 4, 1886 | William Miskimmins | St. John's, Tooele Co. | |
| IB | Right thigh | Feb. 13, 1886 | William C. Bowman | Frisco, Beaver Co. | IS | Right shoulder | April 25, 1885 | Isaac Smith | Logan, Cache Co. | |
| 1B 1B | Left hip or thigh | May 31, 1888 | Indian William | Skull Valley, Tooele Co. | I—S | Right hip | May 26, 1887 | H. H. Smith | Corinne, Box Elder Co. | |
| | | Jan. 29, 1887 | Ira Beal | Shonesburg, Washington Co. | Mark Comp | Right ribs | June 6, 1887 | R. Walter | Corinne, Box Elder Co. | |
| | Left shoulder, horses | June 23, 1885 | Metcalf Cattle Co. | Corinne, Box Elder Co. | I-S | | | James F. Rasband | Heber, Wasatch Co. | |
| I C | Left hip | Nov. 17, 1887 | Christen Christianson | Brigham, Box Elder Co. | IT | Left thigh | Sep. 25, 1886 | | | |
| | Left shoulder | Ian000 | | Vermillion, Sevier Co. | IV | Right hip or thigh | Oct. 27, 1888 | John Olsen | Mayfield, Sanpete Co. | |
| 1D | Left hip or thigh | Sep. 29, 1888 | | Upton, Summit Co. | I> | Left ribs | April 19, 1888 | Robert Baird | Heber, Wasatch Co. | |
| IE | Left thigh | April 17, 1886 | | | ĪV | Left hip or thigh | April 21, 1886 | Arthur F. Ivie | Scipio, Millard Co. | |
| 1 | | | Surredge S | iugar House Ward, Salt Lake Co. | īw | Left hip | May 26, 1885 | John H. Williams | Grass Creek, Summit Co | |

Activity: The Cowboy's Lasso

Cattle Branding: string or rope

An important tool for the cowboy was the Honda Knot, which is also known as a Bowstring Knot. This knot forms a loose and permanent loop called the "hondo." This knot was used for lassos. The lasso helped the cowboy get a hold of cattle and horses on the range. They were then able to manage livestock with the help of the Honda Knot.

Students will learn how to tie the Honda Knot in this lesson, helping them understand the life of the cowboy and the tools they use.

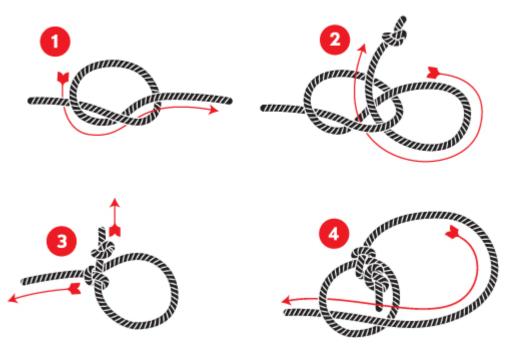


Image Credit: Mckilbo Illo

Step 1: Create a loose overhand knot by making a loop and pulling the working end through the loop.

Step 2: Next, students need to create a "stopper." This is a tight overhand knot at the end of the rope or string. Next, bring the working end back through the loop at the other end of the overhand knot.

Step 3: Get the "hondo" by tightening the overhand knot and pulling the stopper tight. Make sure to leave a loop.

Step 4: Once you have the hondo, pull the working end of the rope or string through the loop.

Cowboys' Folk Songs:

The cowboy continues to be a major icon in American History. While romanticized, it was certainly a rough life working as a cowboy on ranches and on the range. Several songs come from the era of the cowboy, which found its heyday in the decades following the Civil War. The collection and archiving of these songs became the focus of the early twentieth century when archivists sought to preserve the past. The authenticity of these songs have come into question, however not without having a lasting impact on American culture. Cowboy life became synonymous with expansion into the West.

Tell the students that they are going to hear a poem and song that came from living as a cowboy on the frontier. Instruct the students to imagine the life of the cowboys depicted in these songs.

"The Dreary, Dreary Life"

The Cowboy's life is a dreary, dreary life Some say it's free from care; Rounding up the cattle from morning till the night In the middle of the prairie so bare.

Half past four, the noisy cook will roar, "Whoop-a-whoop-a-hey!" Slowly you will rise with your sleepy-filling eyes The sweet, dreamy night passed away.

The greener lad he thinks it's play, He'll soon peter out on a cold rainy day, With his big bell spurs and his Spanish hoss, He'll swear to you he was once a boss.

The cowboy's life is a dreary, dreary life, He's driven through the heat and cold; While the rich man's a-sleeping on his velvet couch, Dreaming of his silver and gold.

Spring-time sets in double trouble will begin, The weather is so fierce and cold; Clothes are wet and frozen to our necks, The cattle we can scarcely hold.

The cowboy's life is a dreary one, He works all day to the setting of the sun; And then his days work's not done, For there's his night herd to go on.

The wolves and owls with their terrifying howls, Will disturb us in our midnight dream; As we lie on our slickers on a cold, rainy night, Way over on the Pecos stream.

You are speaking of your farms, you are speaking of your charms, You are speaking of your silver and gold; But a cowboy's life is a dreary, dreary life, He's driven through the heat and cold.

Some folks say that we are free from care, Free from all other harm; But we round up the cattle from morning till night, Way over on the prairie so dry.

I used to run about, but now I stay home, Take care of my wife and child; Nevermore to roam, always stay at home, Take care of my wife and child.

Half past four the noisy cook will roar, "Hurrah boys, she's breaking day!" Slowly we will rise and wipe our sleepy eyes, The sweet, dreamy night passed away.

A rendition of this song can be found at <u>https://youtu.be/1KRvmnDyxG4</u>.

After listening to this poem, ask the students to think about the images they heard. List these on the board. Discuss in an open discussion about the life of the cowboy.

Discussion Questions:

- What were some hardships that cowboys experienced?
 - Waking up early, the weather, scary nights, etc.
- What type of work did cowboys do?
- Did cowboys make a lot of money?
- Would you like to have been a cowboy?
 - Why or why not?

Jarvie Ranch Visit Extension

Need paper and pencil.

While visiting Jarvie Ranch, students will have the opportunity to view different tools used on the ranch. They will also see the remnants of ranching: corrals, branding irons, barbed wire, etc.

Instruct students to identify one or two tools that would have been used for ranching while visiting Jarvie Ranch. Have the students draw what tool they chose. After drawing the tool, direct students to make an inference about what that tool would have been used for in the 1890s-1910s, while Jarvie Ranch was active. The students can then take their pictures to the Ranger and to their teacher to learn how that tool was used. Have the students write a paragraph about what it would have been like to live on Jarvie Ranch at that time and how they would have used the tools they identified.

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https://www.thirteen.org/wnet/ranchhouse/teachers.html



John Jarvie Historic Ranch: Jarvie Ranch Store

Authored by: Amanda Scheuerman



Grade 3-5

LESSON PLAN DETAILS

<u>Time Frame:</u> 1 class period

Group Size:

• 3-5

Materials:

• Paper, Crayons, Colored Pencils.

Life Skills:

Historical thinking, using primary sources, creative inquiry through art, economics and culture; analytical thinking; interpretive skills.

Intended Learning Outcomes:

Students will understand how people in rural communities ordered goods required for daily life.

Jarvie Ranch Store Lesson Plan

By: Amanda Scheuerman

This lesson plan is intended for grades 3-5. See the end of this lesson plan for ideas on how to adjust this material for lower or higher grades.

SUMMARY

John Jarvie opened his store in 1880. Upon visiting the historic site, visitors can see an 1897 Sears Roebuck Catalog. Store patrons used this catalog to order a wide variety of goods from clothing to farming equipment. In this lesson, students will become familiar with 19th century items that patrons could order from Sears. They will explore 19th-century clothing as well as tools. Students will learn about 19th-century culture and economics.

Relevant Core Standards

Utah Standards 4th Grade

- Social Studies: Standard 1; History 2. The historical eras, groups, ideas, and themes in Colorado history and their relationships to key events in the United States.
- Social Studies: Utah Studies; Standard I Students will understand the relationship between physical geography and human life in Utah.
- Social Studies: Utah Studies; Standard II Students will understand how Utah's history has been shaped by many diverse people, events, and ideas.
- •

Colorado Standards 4th Grade

• Social Studies: Standard 1; History - 2. The historical eras, groups, ideas, and themes in Colorado history and their relationships to key events in the United States.

Wyoming Standards 4th Grade

- Social Studies: Content Standard 2; Culture and Cultural Diversity Students demonstrate an understanding of the contributions and impacts of human interaction and cultural diversity on societies.
- Social Studies: Content Standard 3; Production, Distribution; and Consumption Students describe the influence of economic factors on societies and make decisions based on economic principles.
- Social Studies: Content Standard 4; Time, Continuity, and Change Students analyze events, people, problems, and ideas within their historical contexts.
- Social Studies: Content Standard 5; People, Places, and Environments Students apply their knowledge of the geographical themes (location, place, movement, region, and human/environment interactions) and skills to demonstrate an understanding of the interrelationships among people, places, and environment.

Background for Teachers

In 1880, John Jarvie, and his wife Nellie, opened the only store within 70 miles in Brown's Park. While the store and their log house was being built on the north side of the Green River, the Jarvie's lived in a dugout made of two rooms. After the store was built, it became the center of social and economic life in the region. The store provided much needed goods to the people that lived there and to the new settlers.

Background for Students

Prior to beginning this lesson, students should learn that rural communities traveled to local stores where they could order goods from as far away as Chicago.

Lesson Plan Procedure

- Sears Clothing: Students will have the opportunity to explore a cultural artifact and make inferences about period clothing on the frontier.
- Students will design their own frontier clothing based on examples found in the 1897 Sears and Roebuck Catalog.

Activity: Sears Roebuck Clothing

- Print or display on a projector the Sears and Roebuck Catalog pages attached to this lesson. Start with the pages specifically related to clothing and shoes.
- Explain that the Sears and Roebuck Catalog is a special artifact that can be found at the Jarvie Ranch store. Share with the students the procedures for ordering items from the catalog.
 - Patrons would enter the Jarvie Store, peruse the catalog, and then place orders with the proprietor. The proprietor would then send the order to Sears headquarters in Chicago. After the order was placed, Sears would ship the order via the Post Office. For large orders, Sears sent the items via freight train to the store. Upon arrival, the patron could return to the Jarvie Store to retrieve their purchases.
- Place the students in groups of 4-5.
- Have each group examine the Sears catalog pages paying special attention to the style of clothing that men, women, and children wore.
- Give each student paper and crayons (or colored pencils).
- Instruct the student to design their own 1897 period clothing using the Sears catalog as a guide. This could be done with a focus on frontier clothing or day-to-day clothing.

Questions

- What sorts of clothes did people wear in 1897?
- What types of clothes did cowboys wear?
- Why would clothes on the frontier differ from city clothes at the time?
- How did customers place an order with Sears?
- What is an artifact? (an item from the past that was created by a human and has historical or pre-historical significance)
- Why is the Sears Roebuck catalog considered an artifact?

Extension to Grades 7-12

Mapping Activity:

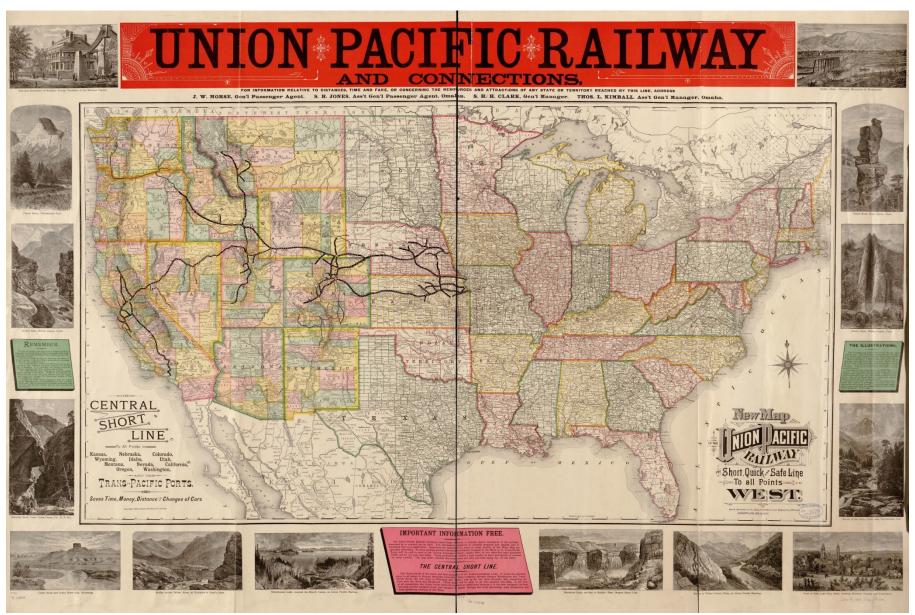
Materials: Union Pacific Railway Rand McNally Map (Next Two Pages), Paper, Pencil

Group Size: Individual

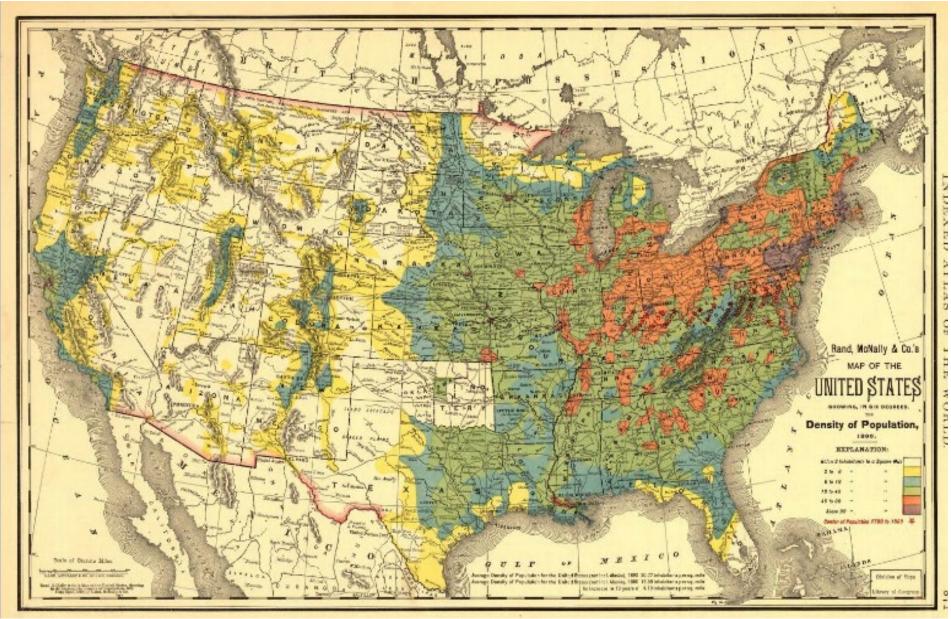
At John Jarvie Historic Property visitors can explore a reconstruction of the John Jarvie store. While there, they may come across the 1897 Sears Catalog. Settlers in Brown's Park would visit the Jarvie Store, search the catalog, and place an order. John Jarvie sent off these orders to Chicago, Illinois and then waited for their shipment. Once they arrived, patrons would return to pick up their orders. These orders were often sent via the post office. Larger orders were sent on the railway.

In this activity, students will individually create a railway that goes from Chicago, Illinois to Browns' Park, Utah. Explain to the students that the railroads served as a primary means of transportation and helped to grow the economy. John Jarvie's store was connected to the large network of transportation, even though Brown's Park seemed to be an isolated region. Give each student a copy of the 1897 United States Map. This map has major landmarks and cities displayed. Instruct the students to draw a route from Chicago, Illinois to Brown's Park, Utah. They are to consider the riverways and mountain ranges and how a train might cross such barriers. (20 minutes)

After each student has had a chance to draw their railroad map from Chicago to Brown's Park, compare the maps to the Union Pacific Railway and Rand McNally 1897 Map. The map illustrates the actual railways and networks that connected the nation. Commerce ran along these railways. Explain to the students that although Brown's Park seemed isolated, the settlers of the region were connected to Jarvie's store which accessed a system of networks that connected the United States.



Rand McNally and Company and Union Pacific Railway Company, New Map of the Union Pacific Railway, the short, quick, and safe line to all points West



Rand McNally and Company, Map of the United States Showing, in Six Degrees of Population Density of Population, 1890

Activity: Sears Roebuck Catalog Ordering

Group size: Individual

Materials: attached Sears Catalog images, paper, pencil

Explain to the students that people could order from the Sears Catalog in 1897 from Jarvie's store and have items shipped to them. The clothing situation on the frontier was much different than in the cities. Instruct the students to review the attached Sears Catalog pages. Many items listed in these pages would have been ordered by people living on the frontier.

Direct students to place a mock order for life in Brown's Park. They should look through the Sears Catalog pages to decide which items would be necessary on the frontier. After they have decided which clothes to order, on a piece of paper have the students describe what they purchased and why they decided it was necessary for life on the frontier. This can be done in an essay format.

Jarvie Ranch Visit Extension

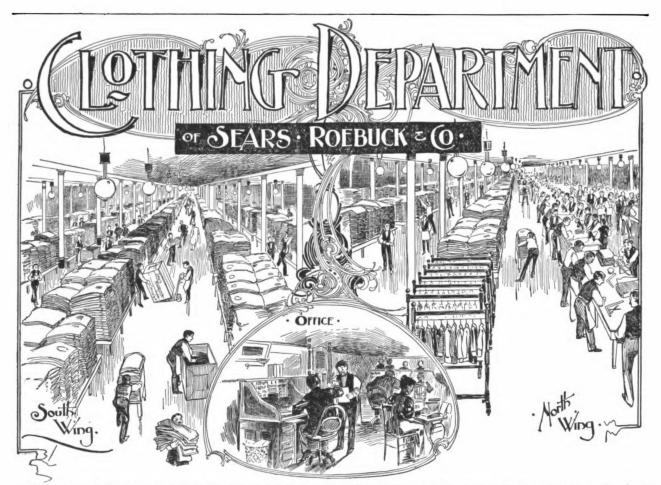
This lesson relates directly to a visit to Jarvie Ranch. Upon entering the Jarvie Store, students can browse through the Sears catalog. In addition, they can observe fabrics that were available at the time. In 1897, a patron could enter the store, pick out a suit design, and then choose which fabric they wanted the suit to have.

On Jarvie Ranch there are several farming instruments. Students will have the opportunity to compare the farming implements to those identified in the Sears catalog (see attached documents). They can then determine if it is possible that Jarvie ordered his farming equipment via the catalog. They can compare and contrast the equipment on Jarvie Ranch with those in the Sears catalog. They will learn how the tools were used and why such tools were needed.

While visiting Jarvie Ranch, students can discuss how items ordered from the Sears catalog got to Jarvie Ranch. Note that by 1897, the Transcontinental Railroad was completed.

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Above we show an interior view of our Clothing department, as drawn by our artist. For want of space we can only this you may be able to form some idea of the extensive scale on which this portion of our business is conducted.

The Clothing Department occupies the entire sixth floor, direct to the consumer than any other five concerns in the United States combined.

For the coming season we have made far more extensive preparations than ever before. We have contracted with some of the largest and most reliable woolen mills for their entire product of certain fabrics, and in doing so have been able to get prices lower than ever before, and prices that will enable us to make the goods up in the very best manner and offer them direct to our customers at lower prices than merchants can buy in quantities.

HOW OUR CLOTHING IS MADE.

Every garment we offer is cut on the very latest style pert cutters and by the latest perfect fitting process. They are made by first class tailors, the linings, fittings and general finish are strictly first class, and those on all suits we offer above \$0.00 will compare favorably with the trimmings and general finish of any custom tailor work. The cheaper suits will be found far superior to ready made goods offered by the average retail dealer. deal

We recognize no competition whatever in this line, We recognize no competition whatever in this line. We operate directly in connection with the woolen mills, and our customers own the garments they buy from us at the actual cost of producing the raw material and putting it together with only our one small percentage of profit added, with no allowance whatever to be made for bad debts, traveling men's expenses, collections, and the various other expenses which go to make up the regular wholesaller's calculation of cost, to say nothing of the exorbitant profit usually added by retail dealers. If you buy your Clothing from us you will ownit cheaper not buy from us. You will be sure to have the very latest styles, no carried-over stock, and goods that are made up by manufacturers of established rep-utation and manufactured by mechanics who are exclusive men's clothing tailors.

tation and manufactured by mechanics who are exclusive men's clothing tailors. Terms—Our terms are very liberal. Any regular sized will be sent to any address by express C. O. D. subject to examination on re-relpt of \$1.00. You can examine it at the express office, and if found per-fectly satisfactory and exactly as represented, pay the express agent our advertised price and express charges, less \$1.00 paid in advance, and the goods are yours. If not found perfectly satisfactory and exactly as repre-ented, you need not pay the express agent a cent and the goods will be returned at our expense. We all

Cash Discount,-We allow a cash discount of 3 per cent if cash in full accompanies your order. If you send cash in full with sending cash in full, for if the goods do not suit you in every particular you can return them at our expense and we will cheerfully refund your money. The best way is to send cash in full with your order. You not only save the

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3% discount but you also save return charges on money to us. Nearly all our customers send cash in full.
How to Order. Select the garment or suit wanted by num-logue; see that it is furnished in the style wanted as shown in the several illustrations or in our fashion plate, the style wanted as shown in the several illustrations or in our fashion plate, the style wanted as shown in the several our rules for measurement closely as given on page 156 or fill out one of our regular order, blanks if you have it, and send to us either with the full amount less 3% cash discount or with a deposit of not less than \$1.00; allow is three to five days to get the goods ready, and they will be sent to you by express of C. O. D. subject to examination if only a deposit is sent, or by expression of C. O. Di t cash in full accompanies your order, and your money of course will be cheerfully refunded if the goods do not fit you and are not perfectly satisfactory.
Do not think you live too far away. The express

| 20 | on see you have but little express charges to pay and if | TOT I | |
|----|--|-------|--|
| | For 1000 miles or less | 75c. | |
| | For 500 miles or less | 50c. | |
| | | | |

So you see you have but little express charges to pay, and if you send cash in full the 3% discount will usually nearly or quite pay all express charges, and you have the satisfaction of not only saving one-half on your suit, but of getting a better suit than you could possibly buy in the average send suit, but of retail store.

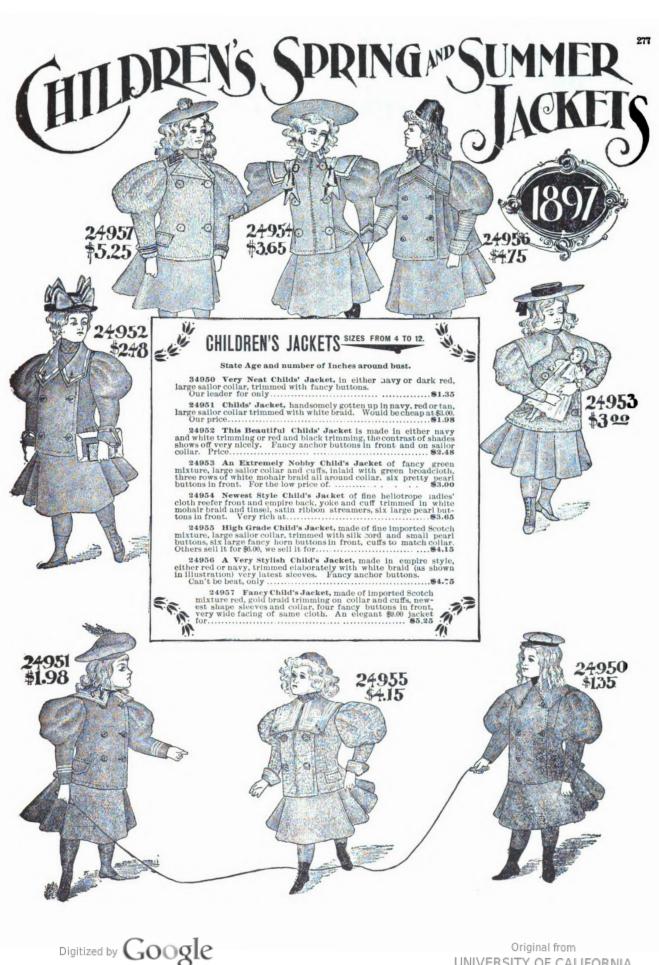
ABOUT FREE SAMPLES.

We can furnish cloth samples of everything we catalogue, and we will at all times take pleasure in sending free of **We issue a special card of cloth samples** can would re-you ask for our special sample card rather than ask for samples of any particular number, for this card is arranged to show our best bargains. We have made the selection with a view to showing our customers cloth samples of such goods we catalogue as are special leaders with us, and which we can recommend above all others. Drop us a postal card saying. "Please send cloth samples of men and boys' suitings and pants," and this card will be mailed to you post paid at once. **We aver a start of the start of the start saying**. Regular sizes run for

send cloth samples of men and oxys surrings and pane, be malled to you post paid at once. **20 Per cent, extra for extra sizes.** Regular sizes run for 42 inches chest measure, and for pants 30 to 40 inches waist measure and 30 to 35 inches leg measure. Any size above these is termed extra size, and for which we charge 20 per cent, extra on all suits \$10.00 or upwards; on all suits less than \$10.00, \$2.00 per suit extra. Please consider this in taking your measurement, and if you require an extra size suit be sure to include the extra charge.

We guarantee a perfect fit. Follow our rules for measure-ment closely, using our regu-lar clothing order blank and following the rules for measurement there given if you have a blank. If not, give the measurements as per instruc-tions given on page 158, and if you have a sample of the cloth be sure to attach a piece of the cloth to your order, allow us three to five days to get your sult ready, and we will guarantee to ship you sults that will fit you perfectly and of such value as were never seen in your section at anything like the price.

SEN TAGE 158 FOR FULL INSTRUCTIONS HOW TO TAKE YOUR MEASURE.



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No. 23723.

No. 23725. 23751 Infant's Flannel Shawl, i inches square, elaborate hand worke design is two corners, the flannel is very fine quality, scalloped edges around worked with silk. No. 23724. A COMPLETE LINE OF CHILDREN'S ROCKERS, HIGH CHAIRS, CRADLES AND CRIBS IN FURNITUBE DEPARTMENT. REFER TO INDEX.

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Carments that stand the Search Light of Investigation. Car-ments that are built "on Honor." Carments that are Practical, Strong, Comfortable and Dependable. We are not given to Boasting, but we really believe that we have the Very Best Coods in this Line that Ever a Manufacturer Turned Out. If you are in search of something Absolutely and Undeniably Cood, you cannot possibly make a mis-take in ordering any of the following garments.



178

MEN'S OVERALLS, AT 35c MEN'S DENIM OVERALLS.

40c APRON OVERALLS.

40c APRON OVERALLS. 40c APRON OVERALLS. No. 21814 MEN'S ME DIUM WEIGHT DARK BLUE DENIM BLUE DANCY SING SIZE SIZES 30 to 44 waist, 29 to 36 in seam. No. 21816 THE VERY BEST 50C OVERALLS EVER MADE. These overalls are made from heavy weight blue denim. Two front, one hip and one watch pocket, sewed with double lock stitch all through and warranted not to rip; made plain without apron; heavy riveted undestruct-ble buttons. Price, per pair. 50c SPECIAL BRAND APRON OVERALLS. No. 21817 SPECIAL BRAND APRON OVERALLS.

Bio buttons Frice, per pair. Bio buttons Frice, per pair. Bio Special BRAND APRON OVERALLS. No. 21817 SPECIAL BRAND NEVER RIP OVERALLS. Made from heavy blue denim, with large blb apron and shoulder straps; cut full size; double lock stitch seams warranted never to rip; patent riveted indestruct-ble outtons; front and hip pocket and rule pocket; felled seams; double reinforced crotch. Guaranteed to give thorough satisfaction in every way. Frice, per pair. 008 555 CARPENTERS' SEATCH.

OUR 85c RIDING OVERALLS. No. 21822 EXTRA HEAVY RIDING OVERALLS. Made with double seat and crotch; extra strong, heavy weight. Oxford gray, twilled denim; the toughest made; three pockets and watch pockets; felled seams and patent riveted buttons; especially desirable for horseback riding as well as working; plain, without apron. Frice, per pair.

THE BLACK HUSSAR AT 71c.

THE BLACK HUSSAR AT 71c. No. 21824 MEN'S BLACK HUS-SAR OVERALLS. Made from jet black 90z duck, with felled seams. Riv-eted buttons set in pants pockets. 2 front 1 hip and watch pockets. Panta-loon style. Made plain without apron. Price, per pair. 71c

THE BLACK CROOK APRON OVERALLS 79c. THE BLACK CROOK APRON OVERALLS 79c. No. 21825 THE BLACK CROOK VOERALLS are made from extra heavy 9 oz fast black duck with large outpet of the pron and straps. Front, hip and rule pockets, and best riveted buttons, Double stitched and felled seams. Thoroughly well made and will stand the hardest kind of service. Built "on honor" and guaranteed to satisfy. Price, per pair.

Price, per pair. 79c No. 21326 MEN'S 9 OZ. BLACK DUCK OVERALLS with apron. Same as the Black Crook but made with double knees and front. Extra heavy and extra strong. Price, per pair. 90c

THE S. AND R. BLACK GIANT. THE STRONGEST OVERALLS IN THE WORLD. 95c.



without apron. Price, per pair. MEN'S WAISTS AND JUMPERS. Sizes. 34 to 44 Chest Measurement. No.21835 MEN'S DARK SPLAIN BLUE GENUINE YUNK DENIM JUMPERS. Single breasted with rivited buttons rip. Price, each. No.21835 MEN'S DARK OXFORD MIXED OR STRIPED JUMPER WAISTS. Single breasted with riveted buttons and pocket; very strong and tough; unexcelled for wear. Price, each. Mo.21836 PAINTERS' AND PAPER HANGERS' WHITE DRILL WAISTS OR JUMPERS. Medium weight, very strong and casy to wash. Extra well made and finished. Price, each. Model and found and finished.



DUCK VESTS.

DUCK PANTS.

FREIGHT AMOUNTS TO VERY LITTLE COMPARED WITH WHAT WE CAN SAVE YOU ON YOUR PURCHASES. IT IS WISEST TO SO CAL-

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AT 35c.







SEARS, ROEBUCK & CO., (Incorporated), Cheapest Supply House on Earth, Chicago.



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We offer these suits at \$7.60. in competition with suits that retail in the finished. The finest stores in the land at double our price. No. 4803. OUR \$7.95 YOUTHS' SUIT. Is made of very fine all-wool worsted in dark pin head checks, rolling collar, wide flaps on all pockets, nicely lined, very handsomely finished throughout, lined with the very best Italian cloth, plain lining, farcy striped sleeve lining, satin piped, shoulders are extra well padded and stayed, hand-made buttonholes. This is, indeed, a very beautiful suit, one of the handsomest designs in worsted, and finest weave, giving a very genteel appearance, and we can guarantee that it will be very satisfactory in regard to wear and style.

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Style 1.

BOYS' LONG PANTS.—Continued.

BOYS' LONC PANTS.-Continued.



Suit: the thing for a boy's everyday go-as-you-please suit. No. 4614. GRAY STRIPED BROWNIE SUIT dressed in a Brownie Suit. They are all the style this season. No. 4616. EXTRA QUALITY DENIM. In blue, gray and striped Extra heavy wear-resisting. OUR BROWNIE SUITS will delight your boy, they are worn every-where this season. Our price per suit. 50c.

WHAT THE PEOPLE SAY.

Would Not Take 88.00 for His 84.98 Suit. SUBLIME, TEX-

SEARS, ROEBUCK & Co., Chicago, Ill. DEAR SIRS:-The suit of clothes you sent have arrived. I am well pleased. I would not take \$3.00 for it. Paid \$4.98. Please accept thanks. Yours truly, S. W. ADAMS.

Better Satisfied Than Expected. MILAN, GA.

SEARS. ROEBUCK & Co., Chicago, Ill. GENTLEMEN: – I have received my clothes; am better satisfied than ex-pected. Will do all in my power for you in the future. Very respectfully yours, WORTEZ JOINER.

Neighbors Hardly Believe Him When He Tells The Price.

Neighbors Hardly Believe Him When He Tells The Fries. SEARS, ROEBUCK & Co., Chicago. DEAR SIRS:--I received the suit of clothes I ordered from you and it is a very line one. I could not nave got a better fit if I had been there. I would have written to you sooner but have been very sick and could not try them on. If I ever need another suit I will remember you. I an very well pleased with it. I have showed it to some of my neighbors and they hardly believe me when I tell them what I paid for it. GEO. HAFER.

Suit Would Have Cost Him \$10.00 There. McGonigle, OHIO.

SEARS. ROEBUCK & CO. DEAR SIRS: —I received the suit in good order and am confident it would have cost me ten dollars at our local clothiers. I will do all in my power to promote your interests in this vicinity. Please send me one of your Gun and Sporting Goods catalogues for 1807, as I expect to buy something in that line later on. Yours hastily, CLARK D. NELSON.

Suits Better Than Expected. MORLEY, MICH.

SEARS, ROEBUCK & Co. DEAR SIRS:-I received the suits in good condition and are better than expected. I would have to pay 86 per suit here. I remain, Yours truly. OTTO PLATH. Pleased With Suit as Well as With Everything Ordered. RUSSELLVILLE KY.

Pleased With Sult as Well as With Everything Ordered. RUSSELLVILLE, KY. GENTLEMEN:-I received the blue tailor-made suit I ordered from your, and was greatly pleased, and we were with everything ordered from your house. Will you please mail me your catalogue of books? Wishing you all success, and thanking you for your kindness, I am Respectfully yours. Miss ELOISE WHITAKER. Mr. McKinney is so Well Pleased With His Goods that He Sends These Testimonials of His Neighbors. SEARS. ROFENICK & CO.

SEARS. ROEBUCK & Co. GENTLEMEN:-The suit that I ordered a few days previous has arrived, and am well pleased. I have showed it to my friends, and I give a few of their testimonials below. Yours truly, THOS. F. MCKINNEY.

their testimonials below. Yours truly, THOS. F. MCKINNEY. SEARS, ROFBUCK & Co. GENTLEMEN: — The suit of clothes that Thos. F. McKinney bought of you is worth twice the money he gave for it. Sears, Roebuck & Co's is the cheapest supply house in the world. Yours truly, R. M. LEAGUE. SEARS, ROFBUCK & Co. GENTLEMENS: — I don't see how you can sell such fine suits for the money. I have seen the suit you sent Thos. F. McKinney and I think it is a magnifi-cent suit. Sears, Roebuck & Co. must be the cheapest bargain house in the world. Respectfully yours, T. D. WOOD.



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OUR SPECIAL DISCOUNT OF 3 PER CENT. FOR CASH WILL OFTEN PAY THE EXPRESS ON A SUIT.



SEARS, ROEBUCK & CO., (Incorporated), Cheapest Supply House on Earth, Chicago.

three rows of fancy gold and, black mixed soutache braid, with fancy corner orna-mentation in each corner of the sailor ccliar, double-breasted, as shown in cut, large square lapel on pockets, lined throughout with serge lining, four full-sized pockets in coat. Attached to coat on inside are four extra buttons of assorted sizes. Fants made of the same material, extra strong reinforced waist band, pants reinforced throughout. Attached to pants is a piece of cloth 4 by 5 inches for patch. The legs are finished with fancy brass buckles and three buttons on each side. At our special price of 84.35 you will be more than pleased, and we believe it will be the means of adding more customers to our list.



All the more than pleased, and we believe it will be the means of mers to our list.
No. 4208. OUR 44.95 TWO-PIECE REEFER SUIT.
Sometimes called the Milliary Reefer, is the most sightly reefer sult made regardless of price. It comes in sizes ages three to sight and regardless of price. It comes in sizes ages three to mixed imported wool cassimerer; the background is black with blue mixture in very small dots which gives it a very neat and blue mixture in very small dots which gives it a very neat and blue mixture in very small dots which gives it a very neat and we prevent the very small dots which gives it a very neat and we prevent the size of the latest patterns from a very reliable woolen mill and wear-resisting cloth. The coat is gotten a very disclose the unit will be worked to be sent by anterns from a very reliable woolen mill and wear-resisting cloth. The coat is gotten around with wide military black braid and with one row of a faroy gilt soutache braid, one row of black braid, making a very hadsome effect. The collar is lined throughout with a same material as suit, wo pockets on one side one pocket on the other, each covered with fancy wide military black braid, then with one row of gilt outache braid. Seeves are finished with one row of gilt boutache braid, then with one row of gilt boutache braid, then with one row of gilt boutache braid. Seeves are finished with one row of gilt boutache braid, then with one row of gilt bout a soutache braid, the prove of marked with fancy wide with three fangs are very hickly milled and bound with fancy wide will where the very black soutache braid. Duble braids one of marked with there fangs are very hickly milled and bound with fancy wide with the fancy soutache braid. The served with fancy wide with there fangs are very nead. Duble brane material, to mater the coat, with reinforced walstband, pants reinforced and well stitched throughout, ornamented at boottom of leg with three fancy satin bows and buckles. The pants are finlished with there fa





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holes. This is a very nobby and handsome suit. No. 4221. OUR \$2.73 BOYS' TWO-PIECE SUIT FROM 4 TO 14 YEARS of age. Be sure to state age of boy and say whether large or small of his age. If to be sent by mail enclose 25 cents extra to pay postage. No. 1040 made of fine all wool gray mixed cassimere with an indistinct check, double-breasted, round collar, wide lapeis, lined with good quality of farmer's satin, handsomely finished buttonholes and rubber buttons, three pockets with flaps. The pants are very nicely finished extra well stayed in crotch, patent waistband with extra elastic loops at the back to prevent the pulling off of the buttons from the waist. One hip pocket and two side pockets, outside felled seam, each leg finished with three small buttons to match coat. You will find this a very stylish and well-made garment, suitable for the most fastidious.

the most fastidious. No. 4222. OUR \$2.95 BOYS' TWO-PIECE SUIT FOR BOYS FROM 4 TO 14 years of age. Be sure to state age of boy and say whether large or small of his age. If to be sent by mail enclose 5 cents extra to pay postage. Made of a select fine checked all wool cassimere, brown and white predominating double breasted, round collar, wide lapels, brown buttons, lined with a fine brown farmer's satin and extra well finished. The pants are extra well made and finished with a felled outside seam, extra stayed crotch, one hip and two side pockets. Finished with three small buttons to match the coat. Fatent waistband with button holes and extra elastic loops. This is indeed a very fine genteel suit, nice enough to wear



SEARS, ROEBUCK & CO., (Incorporated), Cheapest Supply House on Earth, Chicago.

Men's Black Sateen Overshirts. Unprecedented Values in the Garments. We offer you herewith a charge to buy black that are without any exception of wear well sort, there the best. Every saruent in ywarranted. Your history back if not satisfied. No. Solo. Men's Start Black Sateen No. Solo. Men's Start Black Sateen Ver ak Sateen No. Solo. Men's Start Black Sateen Overshirts, extra strong and durable. Large breast pocket; well made and fin-inde al. Sizes May to 17. Price, each... \$0.45 Price, each... \$0.45 No. 2011. At 580

No. 2011.

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bacd. Largo well shaped oollar. First, class in a gonder at the price. Izes 14% to 17. (rice, each \$0.50 Per doz....\$5.40

Men's Extra Strong and Durable

Overshirts. trung Men require trung hirt. The strength of the shirts is orderful. They are md up are hard on hirt. They are also made to fit and look a first will. They are also made to fit and look a first will. The price, too, is made to fit and look a first will. The price, too, is made to fit and look a first will. The price, too, is made to fit and look a first will. The price, too, is made to fit and look a first will. The price too, is made to fit and look a first will. The price too, is made to fit and look a first will. The price too, is made to fit and look a first will be shread to buyers. Ours are money aving prices.

Buckskin Cloth Overshirts.

The strength and w ring qualitie of buck kin cloth is something wonderful. There is real merit in these rments.

There is real merit No. 2020. Men's Heavy Weight Buckskin Cloth Overshirts. Solid and firm goods of unquestionable wearing qualities. thoroug hiy well made and sewed. Yoke back and im-provedfelled seams. Cut full size and guaranteed to wear like iron. Sizes 14% to 17 only. Tan colored plaid and striped palterns. Price each. \$0.47 Six for... 2.66 No. 2021. Genu-ine Buckskin Cloth · 2 0

No. 2021. Genu-ine Buckskin Cloth Shirts. Same as above in neat black and white stripes. Sizes 14½ to 17 only. Price each. **\$0.47** No. 2020.





74c.

74c. The sector of the sector

Men's High Grade Outing Shirts.

Fine Soft Finish-Fast Colors ad Full lizes.

No. 2028. Iten's Fine Light Colored Fine Light Colored Bedford ord Summ r Outing hirt. Cream color with dainty con-trasting stripes of black, blue or red. black, blue or rsd. Voke back, fine white pearl but-tons, breast pocket, flat felled seams and gassetts. P at en t extension band. Cut full length. Slaves Hy to 17. A band-some and dre sy shirt that will give the best of satis-fuelton. Price, each. 0.84 1x for. 3.26

· Ellenand

69c for a \$1.00 Sateen Shirt.



2.45

.....SEE OUR STOCK SADDLES.

is in them. No. 2032. Men's Genu-ine Woven French Madras Shirts. Light color, plaids or stripes. Made with voke Price, each 3 for...



French Madras Cloth Shirts.

French Madras is a fine soft finished fabri with the solors woven through. It is E WWWW 110



French Flannel Shirts.

No. 2036. Men's Fin ammer weight Pr ach Wool Fiannel Shirts. White ground with a st col-ored, contrasting pin stripes and dot. Pointed yoke back, white pearl buttons, extension band and breast pocket. Light and cool. Sizes 145 to 17.

Feather Weight Wool Shirt.



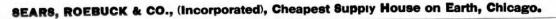


WHEN YOU ORDER GOODS TO BE SENT BY MAIL, ALWAYS INCLUDE THE NECESSARY POSTAGE. IT IS CHEAPEST FOR YOU TO ORDER ENOUGH GROCERIES TO MAKE UP A FREIGHT ORDER, AS FREIGHT IS VERY SMALL COMPARED WITH POSTAGE.





No. 3026.



110

No. 2044.

Men's Extra Size Overshirts. Sizes 1742, 18, 1842 and 19 only.

No. 2037. Extra Size Overshirts. Made from fine twill-ed sateen. Cream color ground con-trasted with neat fancy colored stripes, yoke back, pearl buttons and breast pocket. Made full large throughout and warranted to wear. Made in extra sizes only. only. Price each...**\$0.75** 3 for..... 2.15

No. 2038. Extra Size Overshirts. Made from best qual-ity fast colored per-cale, light colors. Can be laundcred if desired. Yoke back pearl buttons, breast pocket and all im-provements. Sizes 174 to 19; assorted patterns. Price each, 75c; 3 for.

Men's Heavy Weight Overshirts.

For Fall and Winter Wear. Men's Fancy Jersey Shirts.

Jersey Shirt.

Heavy Cassimere Overshirt. Nothing Better for Hard Wear.

Men's Blue Flannel Shirts.

Blue Flannel Shirts. Sizes 14½ to 17. No. 2044. Men's Heavy Winter Weight Navy Blue Flannel Over-shirts, made from best twilled union flannel single breasted with breast pocket, pearl buttons and guaranteed to satisfy. Price each. So.95 Sfor No. 2046. All Wool Heavy Win-ter Weight Navy Blue Flannel Overshirts, single breasted with yoke back, pearl buttons and breast pocket, an excellent gar-ment in every way. Price each. 2.15 Stor. Stor Sto • • J

MEN'S and WOMEN'S UNDERWEAR. X SEE THE GOODS WE QUOTE AND THE PRICES WE NAME. MAKE NO MISTAKE BY BUY-ING ANY FURNISHING GOODS AT RETAIL. IT PAYS BETTER AND COSTS LESS TO DEAL WITH US.

AND BOYS'

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Shirts. Sizes 141/2 to 17.

No. 2049. Mon's Extra Fine No. 2049. de la construction de la construction non-shrinkable band, full size and length, large col-lar and cuffs. Price cach, \$1.98; 2 for......\$3.90

Boy's Overshirts. Sizes 12 to 14 only.

Contraction of the local division of the loc

No. 2056.

SWEATERS.



Boy's Percale Shirts.

No. 2056. Boys' Fancy Striped French Percale Shirts. New and handsome patterns, assorted light colors, finely made and trimmed. Can be starched and laundered if desired; sizes 12 to 14. Price each, 50e; 3 for......\$1.35

The New "Bike" Sweater.



OPEN THE PORES.

No. 2061. Men's Medium Weight Cotton Sweaters, ecru or cream colors. Sizes 34 to 40. Price, each...**\$0.25 Pure Cotton** Pure Cotton Worsted Sweat-ers at 47c. No. 2062. Men's Heavy Weight Pure Cotton Worsted Sweaters. Finely fashioned neck, cuffs and skirt. Absolute-ly fast colors. Wine, black, navy or gold-ettan.

MEN'S

Price, each.... \$0.47

Lace Front

Sweaters at 50c. No. 2064. Men's face Front Cotton Worsted Sweaters. Made same as above. with large collar. Nothing better for wear and service. Colors, black, navy, maroon or tan. Always mention color desired. Price, each....\$0.50

Men's Wool Sweaters.

\$2.10 for an Extra Heavy Worsted

Men's Sailor Collar Sweaters.

Pure Worsted Sweaters. Fine Ribbed, with Sailor Collar.





WE SELL THE SLICKEST BICYCLE IN THE WORLD FOR \$35.00. IF YOU BOUGHT IT RETAIL FOR \$50.00, YOU WOULD CONSIDEE IT A BARE BARGAIN. BICYCLE CATALOGUE FREE.





ALL WOOL. TURTLE NECKSWEATERS. ..

No. 2076. Full regular made and very elastic. Silk cord lacing, elastic ribbed cuffs and tall; e*tra heavy weight, soft and fine; one of the very best sweaters ever made. Made up either with or without contrasting stripes on collar. State which you prefer. Sizes 34 to 44. Price each......\$3.25





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Double-Breasted Blue Flannel



SEARS, ROEBUCK & CO., (Incorporated), Cheapest Supply House on Earth, Chicago.

Boys' Sweaters. Sizes 26-28-30-32, Chest Measure.



Boys' Lace Front Sweaters.

Boys' Lace Front S No. 2082. Boys' and Chil-dren's Heavy Wool Mix ed Worsted Sweaters, mado with lace front and large sailor col-lar, elastic ribbed cufts and skirt, white stripe on collar: extra good value. Sizes 24 to 32, chest measure. Colors, ma roon or more collar. Sizes and the More service and the service of the No. 2083. Boys' and Chil-dren's Heavy Wool Sweaters, with large sailor collar, clustic ribbed cuffs and skirt. Full fashioned. 89 per cent wool, will wear better blam all-wool and will not shrink. Colors, black any blue or wine, with white stripes on collar. Sizes 24 to 32 Frice each. Sizes 25 to 32 Frice each. Sizes 24 to 32 Frice each. Sizes



skirt. Sizes 26 Price each.....

Our 50c Special. No. 2085. Boys' Extra Quality Heavy Cotton Ribbied Worsted Sweaters, with lace front and small collar. Plain colors only, navy or marcon. Sizes 26 to 32. Price each. \$30.50

Mens' Bicycle and Colf Hose.

BICYCLE and Colf H Made without feet and in-tended to be worn over ordinary cotton half hose and retained in place by a thin knitted strap passing under the ball of the foot. The only practical, and therefore the most sensible golf and bicycle hose made. They have met with the very highest favor wherever used. ti de tempor and the second 12223 In ordering Bicycle Hos-

iery always state pre-dominating colors desired.

No. 2086. Fancy Colored Fine Ribbed Worsted Finish Bleycle Hose, Fancy ribbed turnovertops. Assorted colors and pat-terns, greens, blues, tans, No. 2086 tures predominating. No plain or solid colors. Made without feet. Price No. 2087. Medium Workstown, per 1 No. 2087.

SEE INDEX FOR WHAT YOU DON'T FIND.

No. 2090, The Best for Bieyele Hose on Earth. Made from ex-tra heavy domestic wool. Heavy fancy rh stitch with double roll over tops, Flain color with striped tops, black with orangestripes, navyblue with white stripes, or marcon with white stripes, made without feet and guaranteed to give better service than any other hose on earth for the same price. Price. per pair, 80.75 No. 2090. All fancy mixtures with vite designs in browns, ol-ited scribe colorings and the distrable coloring roll tops. No plain colors. Price.. per pair, 80.71 Our 79c Worsted Hose.

per pair. \$ 0.75

Our 79c Worsted Hose.

Our 79c Worsted Hose. No. 2092. Mediam Weight Fure Worsted Bi-cycle or Golf Hose. Made arpressly for those whole ont desire heavy or coarse ribbed hose. Made in plain staple colors, with roll over tops striped with con-trasting colors. Very neat, modest patterns. Fine ribbed, light and strong. Price...., per pair, 80.79 No. 2093. Mens' Fan-ev Top Golf or Bicycle Wool. Wide ribs in plain order for biologies. Very maroon, with fancy col-trasting colors. Very rich and effective in ap-pearance. Made without excellent values. Price...per pair, 80.87 No. 2094. Extra Hea-

Men's Plain Black Bicycle Hose.

Special Bargain 21c.



Boy's Bicycle Hose.

6 pairs for . 1.39

A Rare Bargain.

75c for \$1:50 Bicgcle Hose. No. 2098 Our entire stock of men's fancy colored wool bicgcle hose with feet. We want to close them aut, as the footless hose are more popular. We offer the entire lot in fancy Scotch mixtures, plaids, etc. All of our \$1.00, \$1.25 and \$1.50 qualities. Here is your chance for a big bargain. Price, per pair......75c



Men's Belts.

BELTS ARE POPULAR. More so this season They are used by all classes of people. The styles this season are the handsomest ever manu-factured. In ordering belts, state number of inches around waist. Always order by catalogue number. Sizes, 30 to 42 Waist Measure.



No. 20090. The Wheelmen's Favorite Beit. Made from fines smooth finish, russetleather, 1½ inches wide, with enameled rings and buckle, and with matent snap

No. 2099. and buckle, and solid leather match or coin pouch with patent snap fastener. Strong and very handy. Price. each. $\mathbf{80.37}$ No. 2102. Men's Aligator Belts. Made from fine russet leather, 1½ Inches wide. Alligator finish, with the new harness buckle and nickeled cyclets. Very popular, Ketails at 75c. Our price, each. $\mathbf{80.45}$



No. 2103. This is a 2 inch all leather Belt. Rus-set or tan color, with large leather covered buckle and leather covered rings. Seved throughout with silk thread. Plain fine smooth finish. 60.47 silk thread. Plain Price, each.....

No. 2104. Men's Solid Rus-Men's Solid Rus-set or Tan Col-ored Belts, 1% in. wide with enam-eled square buckle and en-ameled rings. Silk stitched throughout. A great h





The Latest Duck Belts. No. 2112.



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TAKE A CAMERA..... ATTANASE.

WITH YOU ON YOUR BICYCLE TRIP.



SEND FOR SPECIAL FREE CAMERA CATALOGUE.



MENTFOR LESS THAN JOB-IF YOU HAVE ANY TROUBLE ABOUT YOUR ORDER, DON'T KEEP IT TO YOURSELF AND GRUMBLE, BUT LET US KNOW, AND YOU MAT BE SURE THAT WE WILL TAKE PAINS TO RECTIFY ANY MISTAKE. ALWAYS GIVE INVOICE NUMBER.



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to 17

No. 292. No. 293. MEN'S Medium weight, blue mix-tures, checks and stripse, medium dark colors. Regu-made and finished. Slow Line, No. 292. Medium mediath colors. Regu-made and finished. Slow Line, No. 292. Medium Mark colors. Regu-made and finished. Slow Line, No. 292. Medium Mark colors. Regu-made and finished. Slow Line, No. 292. Medium Mark colors. Regu-made and finished. Slow Line, No. 292. Medium Mark colors. Regu-Mark colors. Colors. Colors. Regu-Mark colors. Color

Fine French Percale

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Shirts.

patterns. Each...

6 for

Each..... 80.25 Per Doz... 2.70 OUR 3 FOR

No. 296.

Fine French Sateen Shirts.

ALWAYS POPULAR FOR SUMMER WEAR.



Special Twill.

Our 50 Cent

No. 297. No. 297. No. 297. Cream ground, with black contrasting stripes and checks of pink, black, blue, brown, etc. have flat felled seams, pearl buttons, yoke back, extension bands and shaped shoulders. They are so inches long and guaranteed to be the equal of any to cur special price, each of to. 000 special for. 80.50

If you are pleased with your dealings with us, you will render us a favor by per-2.75 suading your neighbors to send for our catalogue.



14% to 17.



Our 47c. Blue Chambray Never-

2.4

Price each. 80.47: 6 for 2.68

Corded Front Overshirts. 50c. for a 75c. Shirt.



Indigo Blue Shirts.

New Style Shield Front.

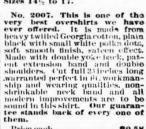
2.75

Price each..... \$0.49 6 for..... 2.70

No. 2003. Men's Fancy Corded Front Overshirt. Made from heavy fast colored percale. Neat blue and white or black and white striped patterns. Patent extension. neck band, yoko back and double shoulders, gusseted and warranted, 26 inches long. Sizes 1412 to 17 only; light colors. Price each.... \$0.50 6 for 2.75 123.00



58c. for this Handsome Shirt. Sizes 14% to 17.





YOU CAN'T AFFORD TO MISS A SINGLE BARGAIN IN THIS BOOK IF YOU NEED IT. SEE INDEX FOR WHAT YOU DON'T FIND. MAKE UP YOUR ORDERS SO THAT YOU CAN HAVE GOODS SHIPPED BY FREIGHT.



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No. 293

At 50 Cents We Offer This One.

No. 295 A Neglige Shirt of surpassing excellence. Made from fine fast colored French per-cale. In fine light colored stripes and checks; made with double yoke back, pearl buttons, exten-sion neck band and breast pocket cut full 36 inch. long, can be starched and landered if de-sired. Sizes, 14½ to 17, assorted patterns.



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No. 31362. Misses' spring heel plain Cro-quet Sandals, first quality. light weight, net lined, regular, op-era or Piccadilly toes. Sizes, 11 to 2. Price, per pair, 30c.

por pair, 30c. No. 31363. Misses' good quality Croquet Sandals, reg-ular or opera toes. Sizes, 11 to 2. Price, per pair, 26c. No. 31395. Children's good quality plain Croquet Sandals, light weight, spring heel, regular or opera toes. Sizes, 5 to 10½. Price, per pair, 22c.

LADIES' CROQUET ALASKA.



Same in Misses', spring heel. Sizes, 11 to 2. Price.

No. 31399. Ladies' good quality Croquet Alaska, cloth top, wool fleece lined, regular and opera toes. Sizes, 2½ to 8. Price, per pair, 65c.

RUBBER BOOTS.

In ordering rubber boots be sure to state whether wool or net lining is wanted, We always send cotton lining unless otherwise ordered.

IMPROVED EXTRA LIGHT VACATION

No, 314%. Thisboot is a favorite among portsmen, from the a satchel. It is made out a suchel. It is made pounds; net line ed, first quality, thigh leg, and is a cool summer boot. Sizes, 6 to 10. Price, per pair, \$3.55.

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No. 21389. Men's felt boot and perfection combina-tion. Consists of a good felt boot, and Lumberman's one buckle perfection of second quality. We do not claim this to be a first quality combination, but we do claim it to be equal to many combinations which are sold and claimed to be first quality. It will give good service. Sizes, 6 to 12. Price per pair, net, \$1.85. Price, per doz. pairs, net, \$21.00. HIP

MEN'S HIP BOOTS.

SPECIAL COMBINATION.

No. 31390. Men's hip leg Boots, made from pure gum, first quality only, wool or net lined. Every one knows how a pure gum boot will wear. Sizes, 6 to 12. Per pair, \$4.50.

No. 31392. Men's dull finish hip Boots, first quality, wool or net lined, and a good serviceable boot. Sizes, 6 to 12. Per pair, \$3.83.

No. 31893. Men's dull finish hip Boots, good quality, wool or net lined. Sizes, 6 to 12. Per pair, \$3.40.

No. 31394. Mon's dull finish rubber Boots, thigh leg, wool or net lined, first quality. Sizes 6 to 12. Weight, 00 ounces. Per pair, \$3.83.

No. 31395. Men's dull finish rubber boots, thigh leg, wool or net lined, good quality. Sizes, 6 to 12. Weight, 90 ounces. Per to 12. We pair, \$3.40.

to 5: weight, 58 oz. Frice, per pair, \$1.90. No. 31409. Youths' dull finish rubber boots, short leg, wool or net lined, good quality. Sizes, 10 to 13; weight, 50 oz. Price, per pair, \$1.45.



BOOTS. No. 81412. Women's fir st quality rubber boots, bright finish, fleece line d, pebble leg, will fit well and give good wear. Sizes 2% to 8. Price, per pair, 81.55. No. 81419. Woman's good quality, seme as above. Sizes, 2½ to 8. Price, per pair, 81.40. No. 81415. Misses' good quality, rebble leg boot, bright finish. Sizes, 11 to 2. Price, per pair, 81.15. "No. 31417. Child's good quality rubber boot, same style as one proceeding. Sizes, 6 to 10. Price, per pair, \$1.05. \$1.05

RUBBER PAC ROLLED EDCE.



No. 3142). This Lumberman's over is made from first quality rubber, dull finish, extra high cut lace, and is snow excluding to the top, Made with heavy rolled edge (see cut), and will give the best of wear. Width, F only, for German socks. Sizes, 6 to 12. Price, per pair, \$1.95.



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WEAR THE LATEST and keep up with the procession. ORDER NOW and lead the fashion for your neighborhood. OUR HARD CASH line of Colored Shoes are the top notch of fine shoemaking.

THEY FIT LIKE A CLOVE AND WEAR LIKE IRON.

MEN'S VICI KID HAND SEWED LACE.



No. 3574. Men's Hard Cash Lace. best vicikid, dark chocolate color, hand sewed. Made with plain toe of medium width, medium heel. desirable for tender feet. Fast color eyelets and fancy colored inside top facing. You never saw its equal under \$5.00. Sizes, 6 to 11; widths, D, E and EE. COLORED FEEL EZY.

SPECIAL PRICE, PER PAIR, \$2.98.

MEN'S RUSSIA CALF LEADER.





NEW COIN LAST.

No. 3575. Made from a good grade of Russia calf, dark wine color, McKay sewed, New Coin Last with long perforated tip. The last is exactly like our Hard Cash line and we can hon-estly recommend the shoe as the best ever seen for the price. Sizes, 6 to 1'; widths, D, E and EE. Weight, 32 ounces.

SPECIAL PRICE, PER PAIR, \$1.98.

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pair made especially for us, after our own designs, and under our personal supervision. We know what's in them—you will, if you wear a pair. Money back, together with express charges, if they are not exactly as represented in every way. Below we show exact colors and styles as reproduce. duced from the shoes by our artist. ********

MEN'S OX BLOOD LACE. Chocolate Cloth Top-Hand Sewed -Needle Toe.

Men's Ox Blood Calf Lace-Hand Sewed.



No. 3576. This Shoe is one we have made after our own peculiar style and we consider it one of the style and we consider it one of the neatest colored shoes out this season. Made from the very finest Russia Calf; the new Ox Blood (dark wine) color, long drawn out Needle Toe with corded imitation tip. The tops are made from a very fine Chocolate colored cloth which, together with the wine colored yampe produces the wine colored vamps, produces a striking contrast. The shoe is strictly hand sewed, has fast color eyelets, fancy colored top facing, and we recommend it as being firstclass in every particular. The height of fashion and very durable. Sizes to 11; widths: B. C, D, E and EE. Sizes, 5

PRICE, PER PAIR, \$2.98.

NEW COIN LAST. No. 3577. Men's Hard Cash Lace. best Russia Calf, latest Ox Blood (dark wine) color. strictly hand sewed, agatine eyelets, fancy color-ed calf top facing, soles cut from best oak tan sole leather and finished in black which together with the wine uppers makes one of the handsom-est shoes we have ever seen. This shoe retails at \$5 everywhere. Sizes from 5 to 11; widths, B, \$5 everywhere. C. D. E and EE. Sizes from 5 to 11; widths, B,

SPECIAL PRICE, PER PAIR, \$2.98.

MEN'S VICI KID LACE—HAND SEWED.



No. 3585. Men's Chocolate Vici Kid Shoe, best selection of stock and latest Coin Toe Last, fancy stitched tip, strictly hand made, kid inside top facing, fast color eyelets, bottoms cut from the best California oak sole leather. If you wish a shoe thoroughly up-to-date, soft and durable, order this one. Sizes, 5 to 11: widths. A, B, C, D, E and EE. Weight, 32 ounces.

SPECIAL PRICE, PER PAIR, \$2.98.

Original from UNIVERSITY OF CALIFORNIA

SEARS, ROEBUCK & CO., (Incorporated), Cheapest Supply House on Earth, Chicago.



No. 2652





No. 2656 Men's Wide Brim Wool Ranch Hats

Cow Boy's Sombreros.

Cow Boy's Sombreros. We have a Most Excellent Line of Cow Boy Mats and Sombreros. They are made from the very best materials; all hand finished with the very best quality of trimmings, and warranted to give perfect satisfaction. Every hat has been made with the strict understanding that it must give real and last-ing satisfaction to the wearer. We quote only the standard shapes, but can at any time have special hats or special sizes made to order. Special Atten-tion however is directed to the fact that it requires about three weeks to have a special hat made to order. If you desire to have a special hat made to order always write to us first describing fully the kind of hat wanted, being sure to state size, color, width of brim, height of crown, etc. The following Hats are made in aizes 6%, 6%, 7, 7%, 7%, 7%, Other sizes would have to be made specially to order and cost from 75 cents to \$1.50 extra. No. 2658



Price, each No. 2665 Pride of the S2.85 No. 2665 Pride of the Platte. A fine soft fur sombrero hat with 4-inch crown and 3%-inch brim with raw edge avd for crown and 3%-inch orim with raw edge, and fine I-inch silk ribbon band. Very popular with cow boys, herdsmen, hunters, kanqueros and planters. Belly nutria color. Sizes 6% to 7%. Price each. \$2.75 made.



Th Concerning anything you do not undurstand regarding COW BOY HATS. We can supply you with any kind of hat in the market at prices that are lower than any other concern on earth.

The Cattle King, \$2.50

bon toach, Dizzo and the set of the set o Price, each ...







Size

An Old Favorite. Hand Made. Kettle Finish.



No. 2676 This hat is an old favorite. It has that fine soft vel-vety finish found only in hats of the finest grade. finest grade, made from



An entirely new An entirely new hat and one that is largely used by wheelmen, tour-ists, hunters, horsemen, a nd for general wear. Its popularity is unquestioned. It is com-





MEN'S STRAW HATS.

Sizes 6%, 6%, 7, 7%, 7% and 7% Only. We Positively cannot furnish sizes larger than 7% in straw hats. They are not manufactured. ORDER STRAW HATS EARLY. The season for this class of goods is short. We cannot guar-antee to fill orders for straw hats later than Sept. 1st.





Full Shape Canton Hats.

Harvest Hats.







Suit a Perfect Fit.

SEARS, ROEBUCK & Co., Chicago. GENTLEMEN:-I received the suit of clothes O. K. A perfect fit and a much better suit than I expected to get. Thanks. Yours respectfully, T. J. BUTRICK.



Children's Straw Hats. Sizes 6 to 6% Only. Made expressly for little children and not made in large boys' sizes.







Boys' Hats.

Sizes 6½, 6½, 6½, 6½ and 7. Always state size desired. No. 2705 Boys' School Hats, made from staple wool felt. Turban style. with neat

Be

No. 2706 loys' and shapecrown



No. 2708 best Boys' School Hat ever made. We have these bats made up from fine style with heavily stitched brim and 6 piece top. tress 6½ to 7. Price, each. Sous' Crushers. Fine Saxony Wool Cur-



fine Saxony Wool Crushers. Cup-ling brim and round crown. Made from extra selected stock. Colors black, blue or brown. Finely made and fnish-d. Leather sweat b a nd and ra w S0.50 estred.

Boys' Fedora Hats.

No. 2711 Boys' latest style Fedora Hats. Made from fine Saxony wool, with band and binding and leather s we at band. Sizes 6% to7. Color black. Price, each...... 80.47



THE SIZE OF A HAT is very important, there-your order don't forget to state just what size you want. We can then fill your order promptly and to your entire satisfaction.

Men's Spring and Summer Caps. "He that hath no head needs no Cap," But he that hath a wise head will readily appreciate the wonderful values we are offering this season in this line of goods. Every Cap we quote is exactly as we represent it. Order the Cap you wish by catalogue number, always being sure to state size wanted and we will guarantee to fill your order correctly and give you such satisfaction as you have never had be-fore. Always mention size wanted.

MEN'S SIZES 6%, 6%, 7, 7%, 7%, 7% and 7%.

5)

At 25c.-The Fourth Part of a Dollar.

 6% to 7%.
 Pre'coeench.
 \$0.25

 Per dozen.
 2.70

 No. 2721
 Men's Corduroy Golf Caps: same as above in becautiful drab shade.

 Pre'coench.
 \$9.25

 Pre'coench.
 \$9.25

 No. 2722
 Men's Handsome Golden Brown Corduroy Golf Caps: same style and quality as above, slzes 6% to 7%.

 Pre'coench.
 \$9.25

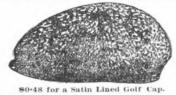
 Per dozen.
 \$0.25

 Per dozen.
 \$0.26

 Per dozen.
 \$0.27



Fancy Corduroy Caps. No. 2724 Men's fancy Extra fine quality, with leather sweat bands and beautiful sitk lining. Dark have mixture of small specks, forming a truely base statistic silver So 15



edge, Price, each.
 So.50
 Always state size and color desired.
 No. 2726 Men's Extra Quality all wool gray mix-ture cheviot golf caps. Six pelce top and hook down front. Fine soft finish, narrow ribbon band and fine.
 So.272 Same Cap as above in handsome brown mixed all wool cass...ers. Full satin lined, Price, each.
 So.48 For a Satin Lined Golf Cap.
 No. 2726 Men's Extra Quality all wool gray mix-ture cheviot golf caps. Six pelce top and hook down front. Fine leather sweat band. All neat dressy patterns. Sixos 63 to 72, Price, each.
 So.48 For a Satin Lined Golf Cap.

17 ISN'T BECAUSE WE HAVE NOT TRIED. IF WE DO NOT PLEASE YOU BEYOND YOUR EXPECTATIONS. IF ANY MISTAKE SHOT D OCCUR IN YOUR ORDER, WE ARE AS ANXIOUS TO REMEDY IT AS YOU ARE. WRITE US.







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PLOWS.

We are headquarters for everything in the line of plows. We have spared no pains in selecting a line of goods that we can guarantee in every respect, plows that are suitable to all sections of the country and for all purposes. Our line of riding and walking plows is for quality. durability, draught and all requirements second to none. Our plows are made for us under contract by several of the largest and most reliable makers in the country, concerns who have devoted their life's work to the manufacture of this class of goods and are turning out the highest grade of work that can be produced. Our line of riding and walking plows for the western prairies is, we believe, without excep-tion the best on the market. There is nothing superior to our prairie breaking plows, if indeed there is anything on the market that will equal them. Our Texas and southers style plows are designed and made especially for that territory, and guaranteed to score in any soil. Every plow we sell is fully guaranteed for two years. We issue a binding guaranty with every plow, by the terms and conditions of which if it fails to scour and is not found exactly as represented, or if any piece or part gives ont by reason of defact in material or workmanship within two years. when we can save you 33% to 50 per cent. We can sell you a plow for as little or less money than your local dealer can buy in quantities.

Our \$4.75 Cotton King Plow.



This Cotton King plow is made with new shape boards, adopted after a thorough investigation of the requirements of a plow for the blacklands of Texas and the south. No. 18120. 7 inch cut, weight 54 lbs., wood beam., 84.75 Steel beam, weight 73 lbs., wood beam., 84.75 Steel beam, weight 80 lbs., wood beam., 5.50 Steel beam, weight 70 lbs., wood beam., 6.25 Steel beam, weight 70 lbs., wood beam., 6.25 Steel beam, weight 94 lbs., south 56 Steel beam, weight 94 lbs., south 56 Steel beam, weight 94 lbs., 805 No. 18123. 10 inch cut, weight 82 lbs., wood beam., 90.54 No. 18124. 12 inch cut, weight 82 lbs., wood beam, 95.52, Steel beam, weight 100 lbs., 95.53, Steel beam, weight 100 lbs., 95.54, Steel beam, weight 100 lbs., 95.55, Steel beam, steel beam, weight 100 lbs., 95.55, Steel beam, steel beam, weight 100 lbs., 95.55, Steel beam, steel

Our \$9,75 Walking Plow.



We believe we offer the best steel beam walking plow on the market. It is a plow that we guarantee to scour in any soil. It is especially dapted to the prairies of Kansas and Nebraska, Min-nesota and the Dakotas, but is used in every state. We illustrate this plow with rolling coulter, but the prices quoted are without coulter. We will turnish 18 inch rolling cast coulters at \$2.00 extra when desired. This plow is made with a very heavy solid steel.point and extra wide shares, warranted to scour in any soll to scour where all others fail. Remember we marantee to use a one-half inch wider share than any other manufacturer.





No. 18128. Price for 12-inch Plow. \$10.05 No. 18129. Price for 14-inch Plow. \$2.05 No. 18120. Price for 14-inch Plow. \$2.05 No. 1610. \$2.0

sectional view of plow; Fig. No. 2 shows sectional view of plow, with patched or welded shin; Fig. No. 3 shows sectional view of plow, without couble moldboard; Fig. No. 4 shows our cutter hub proper, that can not break, and never wears out; Fig. No. 5 is the hub center, or thimble, that works in the hub; Fig. No. 6 is the steel pin, on which the thimble turns, and if kept well olled it will last for years. The thimble and pin are the only parts that can wear out, and are cheap and easily replaced. The new hub can be pat on any of our old it was thout trouble, as well as on most other kinds in market.

Our \$3.95 Wood Beam Plows



0. 45 0. 45 18134. Single board, 10 inch cut, corn plow, weight, \$6.10



We offer the best brush plow made at from **57.95** to **510.40**, according to size. No.18137. 10-in, with Quincy cutter and iron strap **57.95** No.18138. II-in, with Quincy cutter and iron strap **58.50** No. 18140. 14-inch with Quincy cutter and iron strap **58.50** No. 18140. 14-inch with Quincy cutter and iron strap. The above illustration engraved from a photograph will give yon some idea of the appearance of this, the bestbrush plow on the market. It comes complete with cutter and iron strap under beam. This plow is in-tended for new and brushy land, where there are stumps and roots. It is very strong and does its work perfectly in all kinds of land. It is also generally used for a road plow, and as such gives noiversal satisfaction. Weight, 80, 50 and 100 lbs, according to size. **OLM 57.00 51.01** blo **2000**



We believe these are the best all purpose stubble plows on the market, and we are satisfied our prices are below any competition. This is a very strong substantial plow with 3-horse clevis, adjustable heavy wrought iron standard with extra hardened land side share and moldboard, mate-

rial used being the best in the market. Is nicely con-structed and is furnished with wrought iron frog. Extra shares can be furnished which we guarantee to fit. Points are made of the best southern white oak, well braced, and the plow is finished in a very attractive manner. They are made for either right or left hand, as desired. This is a very popular plow throughout the contral and western states, made especially for the west and northwest, and guaranteed to scour in any soil. Size. Weight.



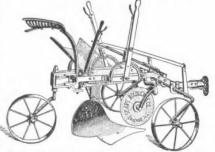
The Prairie Breaking Plow at \$10.90. -



At from \$10.90 to \$13.00 we furnish the finest, strongest and best prairie breaker made, complete with rolling coulter, gauge wheel and extra share.

wheel and extra share. No. 1814. 10-inch plow complete with rolling coultar, gauge wheel and extra share. Weight, 125 lbs.. **\$10.00** No. 1814. 12-inch plow complete with rolling coultar, gange wheel and extra share. Weight, 120 lbs.. **\$11.40** No. 1814. 14-inch plow complete with rolling coultar gange wheel and extra share. Weight, 150 lbs.. **\$12.10** No. 1815. 16-inch plow complete with rolling coultar gauge wheel and extra share. Weight, 150 lbs.. **\$13.00**

Our \$21.00 Mountain Plow.



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Our \$13.00 Subsoil Lister with Our 14-inch Sulky Lister Com-



No. 18154. "Your choice of 14 or 16 inch. One and the price quoted is for the sulky delivered on loard the price quoted is for the sulky delivered on the price quoted is for the sulky delivered on the price quoted is for the sulky delivered on the sulky with cast wheel in the furrow both at the subset with cast wheel in the furrow both at the subset with cast wheel in the furrow both at the subset of the very best material, and at the price we quote is the cheapest sulky on the market. Is under with best Bessemer steel wheels with morable to moving about the doubleterese rise off the ground and the brake keeps the plow from running into the horse' heels. Our Can'r Plow for \$420 po



S42.00 is our net cash with order price for this plow. There is no discount. At \$42.00 works, we have, steel seat, double board, two large rolling coulters, weed hooks and four horse evener. It turns a square corner to perfection. The above illustration represents our new tongueless for strang out, the of horse in all cases walking in the furrow. It has the best steel wheels, spring lift, large rolling coulters, leveling lever, adjusting land there will be perfect lifting lever, which gives it an advantage over all other wheel plows. It is also made with double boards and steel seats. We can furnish it with arch or moldoard breaker bottom when desired. All our tongueless gang plows and sulkies are provided with a device for holding the plow from running on the horses' heels when the plows are out of the ground. This is a valuable improvement over all others. Weight of plows, about 500 lbs. No.18155, Or price for gang with 2 12 inch plows. Store of plows with 214 inch plows. A 50.00 No.18155, Price for plow with 214 inch plows. A 50.00 No.18155, Price for plow with 214 inch plows.

The King of Gang Plows.



\$43.00 net cash with order, no discount. We do not make any discount on plows, but we make you the price of \$43.00 for this gang plow delivered on board the cars at the factory from which point you must pay the freight. No. 18156. Our price with 2 12-inch plows com-

Wood Beam Complete with Runners.



No. 18159. Complete with steel beam and runners. Our price of \$13.00 is the net cash price, from which there is no discount, and the price quoted is for the lister delivered on board the cars at the factory in Al-ton, Ill., from which point you must pay the freight. This is a 14 inch subsoil lister complete with steel beam and runners. Weight, 100 lbs. Made with wide or narrow boards as desired; is very light and perfect in every respect. We claim for it the following advan-tages over any other lister made. It has patent double runners, which carry the plow in an upright position. It has patent frog, which enables us to use a lister lay much cheaper than any other. I thas covering shovels so arranged that they rise up with the wheel in turning around, and with the aid of the covering shovels the furrow is made highest in the middle, and the con comes up in the highest place and is much less liable to be washed out by sudden rains. This lister is high un-der the beam and will not clog up with trash. We gnarantee this the best lister on the market regardless of price, and earnestly solicit your orders. Our \$22.95 Lister. with Runners. Our \$22.95 Lister, with Runners.



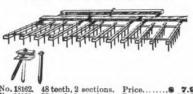
We can furnish this lister in both 14 and 16 inch. No. 18160. 14 inch, with both wheels; weight, 175 lbs.



Wonderful in Cheapness and Style. We sell more than all other Catalogue Houses combined. There is no better avidence of quality and cheapness. plete with Covering Shovels for \$36.00.

Our 16-inch sulky lister complete with Covering shovels at \$37.00. This is an old re-liable lister and the only successful riding lister on the market. New triple cut off, spring lift and all the lat-est improvements. It has exactly the seme frame as our old reliable sulky, and any farmer that has that sulky can obtain an attachment to convert it into listing sulky at \$22.00 for 14-inch, \$22.50 for 16-inch, which includes triple trees, drill and fixtures. Weight of this sulky lister complete is 450 lbs. Price quoted is for the sulky lister delivered on board the cars at Alton, Ill., from which point you must pay the freight.

Our Channel Steel Harrows at from \$7.90 to \$12.75.





No. 18165. Price with 64 teeth. 2 sections, flexible har-no. 18165. Same harrow with springs. 10.00 No. 18168. Same harrow with berings. 10.00 No. 18168. Same harrow with berings. 10.00 No. 18168. Same harrow with berings. 10.00 No. 18169. Same harrow with berings. 10.00 No. 10.00

If there is any way we can serve you on any purchase whatsoever, do not hesitate to write us. We can save you money on almost anything that is made.

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Original from UNIVERSITY OF CALIFORNIA Steel Beam Double Shovel Plow for \$2.50.



<text><text><text><text>



Harrow Teeth.

No.18173. Steel Harrow Teeth, square, plain head. Give length when ordering.

| | per doz. lbs. | Per doz |
|--------------------|--------------------|--------------------------------|
| | | |
| 1/18,8% or 9 | 6 to 7 | |
| 0.147814 OF 9 | 8 to 9 | |
| %x8%, 9, 9% or 10 | 10 to 12 | |
| % x10 or 11 | 17 to 21 | |
| P | ow Shares. | |
| What is the use of | of hammering out y | our shares when |
| | you you | can get share |
| IDCAL | | n, shaped and hed, ready to |



steel. Each.





Our Boys' Cultivator at from \$12.00 to \$14.00.



We offer at from \$12.00 to 14.00 a strictly interpret of the state of



When you order your Cultivator or Plow you can have small articles, such as Cloth ing, Dry Goods, Notions or Books, sent along at no extra expense.

Cultivator for \$12.95.



No. 15187. We build this cultivator with either wood or steel beam, as desired. The price is the same. The above illustration represents our new Acme culti-vator, which is a great improvement over all others of its class, being a perfect tengue cultivator, and can be changed to the best tongueless cultivator, and can be changed to the best tongueless cultivator and the streat frame or arch, are always in line with the draught of the frame or arch, are always in line with the draught of the team and turn easily and neturally; it makes no differ-ence in what position the team may be. Other cultiva-tors having the vibrating movement and the wheels at-tached rigidly to the frame or arch are always parallel to the frame, and when the team is turning and one horse stands alwad of the other the wheels must scrape or slide sidewise, thus making it hard on the team and liable to break the wheels or axle. This hinging of the exclusively, and puts it alwad you will at once see its advantages over all others. Has malleable break pin and low hitch. The wheels have movable boxes, mak-ing them wer resisting.

and low hitch. The wheels have movable boxes, mak-ing them we'r resisting. We can furnish the Acme cultivator with "Eagle Claw" beam or "Spring Tooth" beam at 50e extra when so desired. The prices quoted are for the cultivator de-livered on board the cars at Alton, Ill., from which point you must pay the freight. This is one of the most popular cultivators on the market, and there are more of them in use in Lowa, Kanses, Nebraska, Missour and Illinois than any other three cultivators made.



\$22.00.

No. 18185. Price for Boys' Cultivator, with parallel beam. Our Tongueless Cultivator at \$12.00. We have a state of the separance of this parallel of the second state of the separance of this parallel beam in a carrying position quickly without the second state of the second state of the second state of the separance of the

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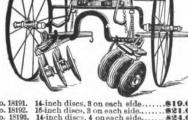
Original from UNIVERSITY OF CALIFORNIA

ur Single Row Two Hors Riding Corn and Cotton Stalk Cutter for \$22.00. Our Horse



The illustration above shows the new patent single row corn and cotton stalk cutter. The double row has two revolving disces and the machine is just double the width of the single row cutter. Has double pole to use three horses. The plan is different from all others. Instead of cutting by the weight of the cutter head and machine, the power comes entirely from springs. The combination of lever and springs chables the operator to apply any force to the knives that may be necessary to do the work, and when raised from the ground to wheels are springs raises that may be necessary to do the work, and when raised from the ground to ther the the the the work of the cutter head, making the easiest cutter to handle in the world. The seat and wheels are high and the driver well up out of the dust. The wheels running into low places have no effect on this cutter, as the frame never rides the cutter head, which has always plenty of room to work, and over training the horses. The steel wheels have malleable boxes, which are bored and fitted as perfectly as these on a bugy. The axles are also turned upon a lathe and are protected by a hub nut instead of a hole in the axle wheels of the very best material, elegantly finished wheels much also been the wheel on. The machines are made of the very best material, elegantly finished wheels with adjustable hubs and perfect in every respect. Mo sligs, Single row cutter for two horses, shipping

Our Acme New Riding Disc Cultivator at from \$19.00 to \$25.00.





Our New Style Steel Frame Disc Harrow, at \$22.00 and Upwards.

We furnish this Harrow either with sec-tions close together or spread apart, with center shovel, if desired, complete, with 4 horse evener.

 We furnish this Harrow either with sec-tioned close together or spread part, with center showel, if desired, complete, with 4 horse evener.

 No. 18155. Price for harrow, with 12-16 inch discs, cut 64 foot, no center showel.
 \$22.00 Same harrow, with center showel.

 Sige. Price for harrow, with 12-16 inch discs, cut 74 foot, no center showel.
 \$22.00 Same, with center showel.

 Sige. Price for harrow, with 16-16 inch discs, cut 74 foot, with no center showel.
 \$25.00 No. 18197. Price for harrow, with 16-16 inch discs, cut 84 feet, no center showel.

 Sige. Price for harrow, with 12-20 inch discs.
 \$25.50 No. 1819. Price for harrow, with 12-20 inch discs.

 Same harrow, with center showel.
 \$25.50 No. 1819. Price for harrow, with 12-20 inch discs.

 Same harrow, with center showel.
 \$25.50 No. 1819. Price for harrow, with 14-20 inch discs.

 Same harrow, with center showel.
 \$25.50 No. 1819. Price for harrow, with 16-20 inch discs.

 Son. Same harrow, with center showel.
 \$25.50 No. 1819. Price for harrow, with 16-20 inch discs.

 Mathematical and the cars at 31.00 No. 200. Price for harrow, with 16-20 inch discs.
 \$25.50 No. 200. Price for harrow, with 16-20 inch discs.

 Mathematical the cars at 31.00 No. 1819. Price for harrow in the world.
 \$25.50 No. 1819. Price for harrow in the world.

 At the above prices we furnish this harrow, delivered onsar pay the freight.
 \$25.50 No. 200. Price for harrow in the world.

 The gauge are set the proper disch

Our Special \$36.50 Side Throw

Disc Harrow.



Our \$2.15 Little Ciant Disc Sharpener.



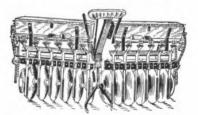
No. 18207. This is the most This is the most practic a ble, portable d is o sharpener man-ufactured. Any disk harrow or cultivator can be thoroughly sharpened without taking apart in less than an hour, and practically and practically

We furnish this harrow with 12 16-inch discs and 6%-foot cut, for \$36.50. Frice with 12 20-inch discs and 6%-foot cut, 540.50. The prices quoted are for the harrow when shipped by froight C. O. D. subject to exam ination on receipt of a sufficient deposit to cover registe charges both ways, balance and fright charge to charge the harrow de turned upon its back dis your offer. We foel safe in saying that we are quoting this harrow at at least 33% per cent less than it can be ind at retail. The disces throwing all one way is carried on wheels and with a flexible tongue. We claim the following the a furthele tongue. We claim the following the point. It being carried on wheels, the depine to post and attach the crank same as to harrow. Weight to post and attach the crank same as to harrow. Weight to post and attach the crank same as to harrow. Weight to post and attach the crank same as to harrow. Weight to post and attach the crank same as to harrow. Weight

Compare our prices if you will with those of any other Mail Order House, and if you don't find our prices the lowest and our terms the most liberal, don't buy of us.

Original from UNIVERSITY OF CALIFORNIA 159

Our Combination Disc Harrow and Crain Drill Complete with Four Horse Eveners and Polished Discs at \$44.00 to \$51.00.





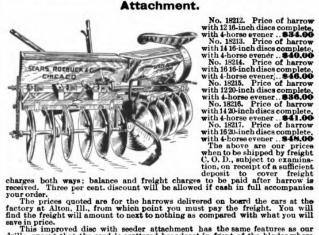
No. 18211. This beautiful new tool will be a delightful surprise to every grandener who tries it. We all know that a garden seed sower that does not drop in hills is fast becoming a thing of the past, for there are but few now who do not wish to plant beans and corn, spinach and salsif, carrots and turnips, parsnips and beets, in hills. All crops that are to be grown from seed and then thinned to a regular stand, should be planted in bills and at just the distance apart the plants are desired; for in drilling, unless the seed is sown unnecessarily thick, there will not always be a plant at the proper spot, and the crop is therefore irregular. This means that nowalays a seed sower should drop in hills and at authout shows the distance apart. The new No. 5 "Planet Jr." drops at 5, 6, 8, 10, 12, 16, 24 and 49 inches apart, and also beautifully in a continuous row. It drops withoutinjury, and without any changing of bolts, and without any loose wheels or parts so easily out off is arranged most conveniently just at the top of the handle. The new rower is a great favorite, too, because it is unusually large, holding three quarts, yet very light running withal; and it is also a model of simplicity. The new rower is a great favorite, too, because it is unusually large, holding three quarts, yet very light running withal; and it is also a model of simplicity. The new rower is a great favorite, too, because it is unusually large, holding three quarts, to the very last grain. In a word, no seeder has ever been made that compares with this newly per-fected No. 5 " Planet Jr." - the 1897 surprise. Price. **\$12.00**

The "Planet Jr." No. 2 Seed Drill. No. 18210. This tool is used the world over, and with the exception of the "Planet Jr." Hill Dropping Drills, is the most perfect drill known. It holds two and one-half quarts. The sowing cylinder is a drum of spring brass, set between the driving wheels. A round this drum is a brass band, drawn tight to the drum by a cam which joins the ends. In both drum and



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Our Improved Disc Harrow with Seeder Attachment.



factory at alton. In., non when point you must pay due regult, You will save in price. This improved disc with seeder attachment has the same features as our drills, except that the seed is scattered broadcast in front of the blades where it is covered. We claim for it the following advantages over all other machines of the same character: It has a perfect force feed, which is a very essential feature; its driven from both sections, and the drive claim is always in lines it is provided with a spring claim tightener, which enables you to take the claim off or put it on without removing the whele and preventing it coming off either side can be thrown out of gear; the drive rists where he has as ea all times whether the seeds are discharged properly; it has a price to incx, show way, the quantity source the can be thrown out of gear; the serve is the middle, which no with has, are which to only leave the which enables white he is a way way. The has, are which to only leave red. It can be used without a showil feasing the has, are which to not y leave red. It can be used without a showil feasing the heat shows the distribution interform with the driving chain sprokets. This machine is made of the very best material, and is guaranteed to grive heat the seeder can be taken off and the disc used as a separate machine, giving you two perfect machines in one.

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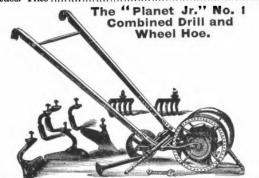
TRADE YOUR GARDEN TRUGK FOR HALF ITS VALUE IN GROCERIES. SELL YOUR PRODUCE FOR WHAT IT IS WORTH, AND WHEN YOU BUY, TAKE ADVANTAGE OF OUR FACTORY-TO-CONSUMER SYS-TEM AND GET THE FULL WORTH OF YOUR MONEY.

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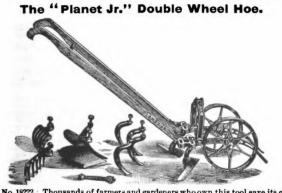


Sows either in Hills or Continuous Row.

Sows either in Hills or Continuous Row. No. 18220. Until recently there was no such thing as a Hill Dropping Secter, modern drills sowing continuously only. This drill will sow in a contin-ucts row, in the ordinary way, with the greatest regularity; but its distinctive feature is that it will drop neatly in hills, either 4, 6, 8, 12 or 21 inches apart. It opens the furrow, drops in hills, or drills, covers, rolls down and marks the next row, all at one operation. The hopper holds three quarts. The wheel is 15 inches high, with a broad face. It is changed in a moment from hill dropping to drill work. It has a rubber force feed, sows equally well whether the hopper is full or contains only a paper of seed, and will not injure delicate seeds, such as radiush, cabbage, etc., which are so often peeled or crushed by drills having agtiators or metal feed wheels. It is nicely adapted to all conditions of land, working specially well in fresh ground or when planting on a ridge. The plow is adjustable and opens a very narrow furrow, which is a great advantage for after-cultivation. 1896 was the first year that this machine was sold widely by the manufacturers of the celebrated line of "Planet Jr." gods, but the machine was bought very is result on price **The 4" Planet Jr." No. 1**

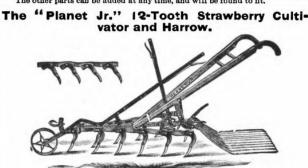


No. 18221. This is the most popular combined tool known, and its friends have been gained by substantial merit alone. It won the highest and only award at the Chicago Exposition. As a seed sower it is identical with the No. 2 "Planet Jr. Drill, except in size, and has all its merits, its strength, durability, ease of opera-tion and perfection of work. This combined tool has a complete set of cultivating tools, and all its opera-tions are rapid, easy, perfect and delightful. When used as a drill the seed is sown with great regularity and at uniform depth, regulated at pleasure. The hopper holds one quart. The door, when opened, forms a convenient spout for fulling with seed. From a drill it is changed to its other uses by unscrewing but two bolts, when any of the attachments shown in the cut can be instantly at-tached. In short, every purchaser of this machine will find it an excellent seed sower; a first-class double wheel hoe, for use when plants are small; a first-class ingle wheel-hoe; an excellent furrower; an admirable wheel cultivator; a cap-tial garden rake; a rapid and efficient wheel garden plow; and that it is without method in variety of tools, easy adjustment, lightness, strength and beauty. Such and in variety of tools, easy adjustment, lightness, strength and beauty. Such



No. 18222. Thousands of farmers and gardeners who own this tool save its cost one or more times every year, for in an onion field and among many other crops one can do more and better work with it than six men with ordinary hoes. It is invalu-able for all market garden crops. The wheels are only ten inches high, as a high wheel is wrong for a Wheel Hoe, since the wheels are simply depth regulators, not load carriers.

We quote a complete assortment of Garden, Grass and Flower Seeds on Page 25. Profits of dealers are very large on these goods, and you can save these profits by buying of us.



The "Fire-Fly" Wheel Carden Plow.

The "Planet Jr." Crass Edger.

The "Planet Jr." No. 8 Horse Hoe.

r." No. 8 Horse Hoe. No. 1827. Probably no other cultivations and the states of the s

are formed up hollow with round throats of stiff steel; they polish quickly and free themselves readily from ob-structions, and they

clasp the frame and strengthen it. The Depth is under perfect control by means of a new lever wheel and the new patented depth regulator, which are moved instantly in unison by a single lever, making exact work, steadying the machine and relieving the operator. The Expander. This is an entirely new pattern, superior to all other forms; exceedingly strong, simple, accurate and positive in all positions. Handle and Braces. These are also absolutely new and the most effective stiffest combination known, at once making the tool rigid, yet allowing r adjustment of handles in height and sidewise. Livery part is perfected to make the tool acceptable to the intelligent farmer, wno knows the best is aways the cheapest. Price, \$7.50; without Depth Regulator.

The "Planet Jr." No. 5 Horse Hoe.



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No. 18229. This new Wheel Hoe has the advantage of a high wheel with broad face, of a convenient arrangement of the frame, and a very full set of tools, most of them being of new, special design, such as have been found to perform wheel hoe work in the very best manner. It also has the great advantage of being convertible into a hill dropping and row seeder, by buying the seeder attachment.

Our \$25.00 Western Potato Bug Our House is the Sprinkler.



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Should you fail to find what you want, refer to the index. If you don't find it there, write us and we will name you a price that will save you money.

The "Planet Jr." Single Wheel Hoe. No. 15200. This Wheel Hoe is considerably lighter than the double, but does almost the same variety of work, being used wheel at one side of the frame. The form of the bose insures a forward latting cut next to the plant, and consequent close work without danger, and thoreauch cultivation of the soil. The rakes and cultivator tests, and the hoes and the field or a safet. All mil

can be heed at ne passare. The frame is quickly raised or lowered to or lowered to inverted to practical men without an equal in design and finish, ease of operation, variety of adjustment and perfection of work, and we feel confident that every one who tries this tool will be glad that be did so. Price. To supply a demand from

The "Fire-Fly" Single Wheel Hoe, Cultivator and Plow.

Send for Our Special Catalogue of "Planet Jr." Garden Tools



12.7.5 Is our regular C. O. D. price. \$2.67 pays for the pump if cash in full accompanies your order. This pump is constructed of file very best galvanized for the very best with the very best galvanized for the very best with the very best galvanized for the very best with the very best galvanized for the very best galvanized for

Paris Creen Sprinkler.

No. 15237. Every one that raises potatoes should have one of these sprinklers.

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The rollers are made from 18 to 22 inches in diameter, and 3 feet in length, covering 8½ feet of ground. They are turned from solid oak logs and painted. The gudg-cons are cased with a fiange, and bolted to the rollers, red diversely the solid oak logs and painted to the rollers.

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\$15.00 for the Celebrated Sherwin Patent Adjust-

can b Price

John Jarvie Historic Ranch: Ute Map Lesson

Authored by: Amanda Scheuerman

Grade 4-6

LESSON PLAN DETAILS

<u>Time Frame:</u> 30-45 Minutes

<u>Group Size:</u> 15-30 Students

<u>Materials:</u> Attached Maps

<u>Life Skills:</u> Geography, Mapping, Historical Thinking, Interpretation

Intended Learning Outcomes: Students will become familiar with Ute Lifeways, dispossession, and culture.

Jarvie Ranch Ute History and Map Lesson Plan

By: Amanda Scheuerman

This lesson plan is intended for fourth to sixth grade.

SUMMARY

In the Ute map lesson, students will learn about the history of the Ute people located in Utah, Colorado, and Wyoming. This history will include precontact lands as well as the transformation and eventual dispossession of Ute lands.

Utes argue that they have always lived in the region they called home. The first European contact included Spanish explorers, fur trappers, and miners. With the arrival of Mormon immigrants and ranchers, Utes experienced a drastic change of life. Anglo-American peoples began encroaching upon Ute lands and over time reduced the Ute land base drastically. This lesson will illustrate the loss of land that the Utes experienced. Students will be able to identify traditional Ute lands and compare this to contemporary reservations.

Teachers can access the online interactive map here.

Relevant Core Standards

Utah Standards 4th Grade:

Social Studies Standard II: Students will understand how Utah's history has been shaped by many diverse people, events, and ideas.

- 1. Objective 1: Describe the historical and current impact of various cultural groups in Utah.
- 2. Objective 2: Describe the ways that Utah has changed over time.

Colorado Standards 4th Grade:

Social Studies

History:

- 1. Organize and sequence events to understand the concepts of chronology and cause and effect in the history of Colorado.
- 2. The historical eras, individuals, groups, ideas, and themes in Colorado history and their relationships to key events in the United States.

Geography:

- 1. Use various types of geographic tools to answer questions about the geography of Colorado.
- 2. Connections within and across human and physical systems are developed.

Wyoming Standards 4th Grade:

Social Studies

- 1. Content Standard 1: Citizenship, Government, and Democracy
- 2. Content Standard 2: Culture and Cultural Diversity
- 3. Content Standard 4: Time, Continuity, and Change
- 4. Content Standard 5: People, Places, and Environments

Background for Teachers

Students will be able to:

- 1. Identify the key historical events that occurred as Anglo-American settlers came into Ute lands.
- 2. Understand the relationship between history and geography.
- 3. Identify historic and contemporary Ute lands.

Prior to teaching this lesson, teachers should become familiar with a summary of the history of the Ute people. See <u>Appendix</u>. Prior to European colonization, the Ute land base spanned Utah, Colorado, Wyoming, and New Mexico. After European entrance into the region, the Utes began to see their land base shrink due to dispossession. The maps in this lesson illustrate the land loss of the Utes. Use these maps as you teach the students about the history of the Ute people.

Lesson Plan Procedure

Day One

• Ute History

Day Two

• Ute Maps

This Ute Map Lesson is intended to provide a basic history and background of the Ute people. While there are a few notable histories written of the region, much is left to be researched and written about. *Being and Becoming Ute: The Story of an American Indian People* by Sondra G. Jones and *Ute People: An Historical Study* compiled by June Lyman and Norma Denver and edited by Floyd A. O'Neil and John D. Sylvester have been influential in writing this lesson plan. Additionally, the resources and maps that were used in this lesson plan were generously given by the American West Center. Several other sources were utilized while compiling the Ute Map lesson plan. A great deal of debt and gratitude is owed to the anthropologists, archaeologists, and historians that contributed to this lesson plan.

While it is accurate that with European and American colonization of the region came a written record that gives us a peek into the lives and politics of the Ute Nation, it is important to recognize that the Ute people have added much to their own histories. Oral histories, collected by the American West Center, have been integral to allowing Utes to lead the conversation. This lesson plan hopes to take an inclusive and comprehensive approach to history, taking in all sources and viewpoints.

| Bands | A loose organization of kinspeople and close associates. | | | |
|-------------------|---|--|--|--|
| Dispossession | The process of having land taken away. | | | |
| Immigration | Moving from one place into another, often between countries. | | | |
| Reservation | An area of land set aside for American Indian habitation. | | | |
| Nuu-ci | "The People," this refers to what the Ute call themselves. | | | |
| Explorer | A person who investigates an unfamiliar area. | | | |
| Settler | A person who moves with a group to live in a new country or area. | | | |
| Trader | A person that buys and/or sells goods. | | | |
| Old Spanish Trail | An historical route that connected New Mexico with those of California. | | | |
| Treaty | An agreement between two nations or countries. | | | |

Lesson Vocabulary

Map 1: Ute Bands

This map illustrates the Great Basin and beyond. Contemporary state lines indicate where state boundaries are. The yellow portion of the map describes the extent of Ute lands, reaching across several state lines. Within the yellow, are portions indicated with orange. These orange regions represent the various Ute bands within the region.

Assist the students in locating the various states on the map, such as: Nevada, Utah, Colorado, and Wyoming. Help the students identify the various Ute bands that are located throughout the region. There were twelve bands historically. These bands were made up of families that lived similar lifeways and were influenced by neighboring nations. Make a special note of the extent of the Ute territory. Utes lived in a region that spans present-day Utah, Colorado, Wyoming, Arizona, and New Mexico. This is a vast amount of space that the Utes called home.

Questions to Ask:

- 1. Which state do we live in?
- 2. What is a band?
- 3. What are the twelve Ute bands?
- 4. How many Ute bands are there?

Map 2: Ute Lands 1868

The attached map titled "Ute Lands 1868" illustrates the large amount of lands lost after the creation of the Uintah Valley Reservation on October 3rd, 1861 and the creation of the Confederated Ute Reservation on July 25, 1868. A yellow line shows the original land base of the Utes. Ute lands were reduced drastically with the implementation of reservations.

Questions to Ask:

- 1. What are the original Ute land boundaries?
- 2. Where are the 1868 Ute boundaries?
- 3. What is the difference between the original Ute lands and the 1868 boundaries?
- 4. What is dispossession? Note: Dispossession is the process of taking away land or property.
- 5. What are reservations?

Map 3: Ute Lands Today

The attached map titled "Map 3: Ute Lands Today" illustrates the land loss of the Ute people. While the Uintah and Ouray Reservation is the second largest in the United States, it represents a great loss of land to the Ute tribe. Between the eighteenth, nineteenth, and twentieth centuries Utes faced a constant barrage of European and Anglo-American settlers into the region. The immigration of settlers, miners, and ranchers led to the great dispossession of Ute land. Additionally, when the reservation was opened due to the Dawes Severalty Act in 1887 land was divided up among individuals. This led to the checkerboard effect that is illustrated in the attached map.

Show these two maps to the students using a projector, or print it out for students. Have the students compare all three maps, which illustrates the eventual land loss of the Ute Nation. Instruct the students to write what they notice about the maps and their differences over time.

Questions to Ask:

- 1. How are the original Ute boundaries different from the current boundaries of the Uintah and Ouray reservation?
- 2. What led to land dispossession?
- 3. What is immigration?
- 4. Are there ways to restore lands to the Ute tribe?

Extension: Grades 7-12

Colonization:

In 1851, Utah Indian Superintendent J.H. Holman made a chilling comment about the American Indians that lived in Utah Territory. He stated that they were:

"...very much excited by the encroachments of the Mormons, as they are making settlements, throughout the Territory on all the most valuable lands...The Indians have been driven from their lands and their hunting ground destroyed, without any compensation...they are in many instances reduced to a state of suffering, bordering on starvation."¹³

Colonization is the act of settling among and displacing an indigenous population. Discuss the process of colonization of Utah, Colorado, and Wyoming with students. This would include exploration of a region by Europeans and Anglo-Americans, the settlement of Mormon pioneers, and encroachment of miners into Ute country.

Have the students write a news article as if they were living in the 1850s about the process of colonization into Ute Country. This will be an editorial, expressing the students' opinions based on known facts of the status of the Utes at this time and the history of Utes up to this point. In this article, students are to write about the "Ute Question"- meaning how the Utes should be treated by outsiders and what to do about the influx of settlers into the region.

Ute Nation Today:

Over half of all Utes today live on reservations. They face many issues that are unique to many tribes throughout the United States. This includes further land dispossession, recognition, and sovereignty issues.

Have students research current events in Ute issues. They can do so by researching online as well as through newspapers. One such website is: http://www.utetribe.com/. Here, they will learn about the current status of the Ute Nation as well as issues that they face.

After researching current events with the Ute Nation, direct students to write a short essay about their findings. This essay should be editorial; students should express their opinions about what they research. Students should then be directed to discuss possible solutions to the problems they come across.

¹³ From Sondra G. Jones, 2019, *Being and Becoming Ute*, 91.

Discussion Questions:

- What are some of the issues that the Ute Nations face today? (Have the students discuss their solutions and ideas regarding Ute current events)
- What is sovereignty? (The authority of a state or nation to make decisions without interference from another nation).

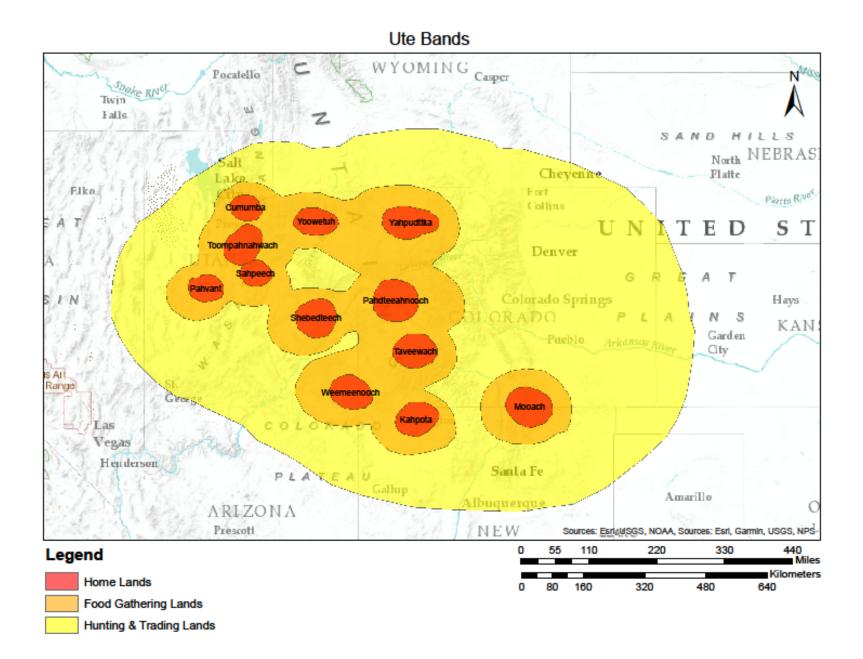
Ute Word Search

The American Trapper, General William H. Ashley traveled through Ute country in the Spring of 1825. There, he met a band of Utes and camped with them. He learned and recorded several Ute words. The Ute Word Search, below, has 10 Ute words hidden throughout. In this word search, students will become familiar with some words from the Ute language. Allow the children the opportunity to pronounce the words and compare them to the words in English.

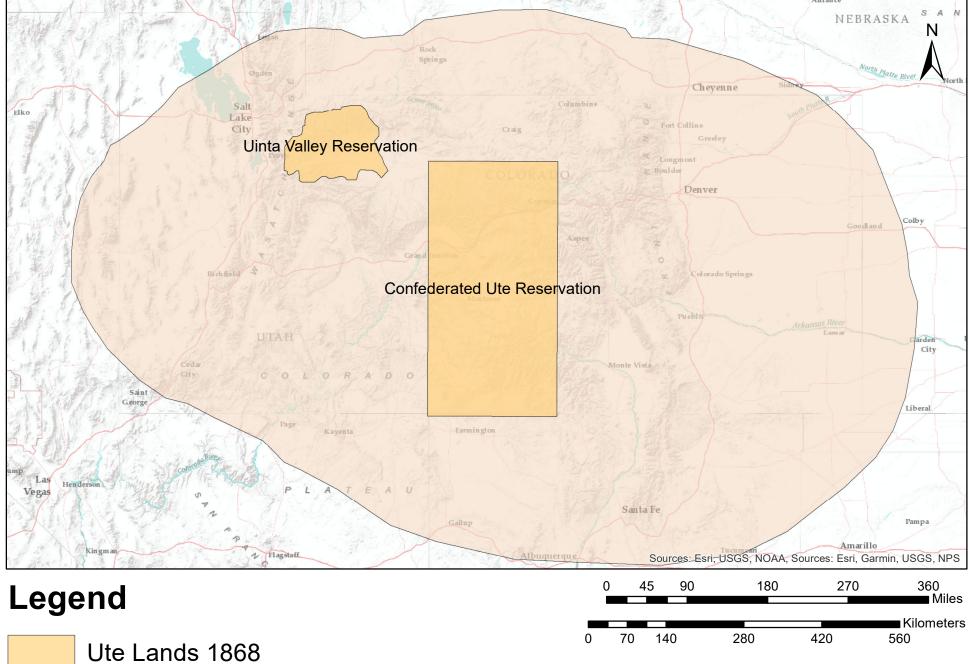
| Ute | English |
|----------|----------|
| Cothe | Buffalo |
| Pantuta | River |
| Tarve | Sun |
| Martoits | Moon |
| Nosvint | Man |
| Marmont | Woman |
| Tawip | Ground |
| Kiba | Mountain |
| Cabar | Horse |
| Nunke | Beads |

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| Cothe | Marmont |
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| Pantuta | Tawip |
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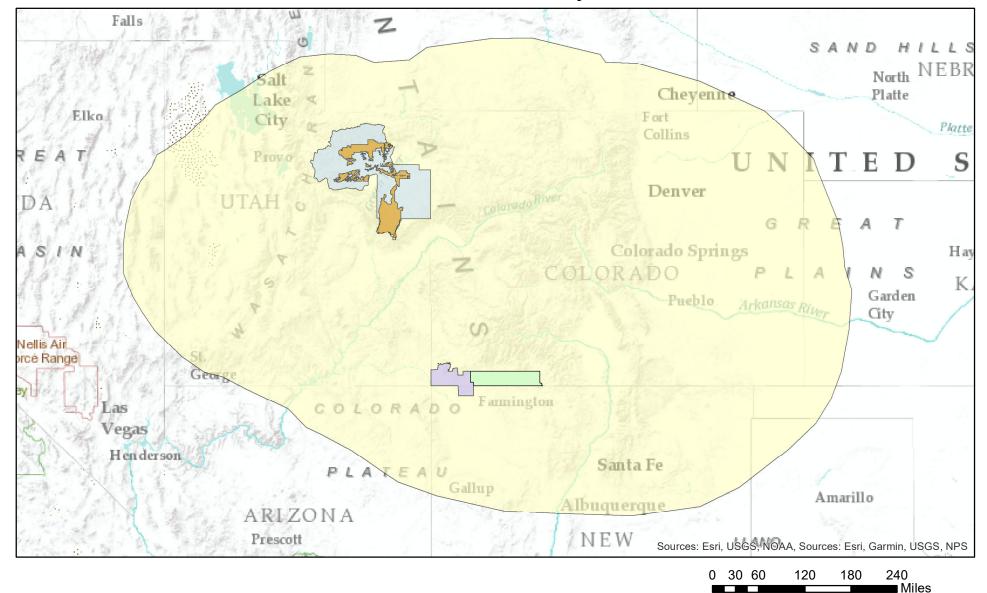


Ute Land 1868





Ute Land Today



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Legend

Ute Land Today
Southern Ute Reservation
Ute Mountain Reservation
Uinta Ouray Reservation
Ute Land Pre 1868

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Jarvie Ranch Visit Extension

While at Jarvie Ranch, students will have the opportunity to discuss historic Ute lifeways with a Park Ranger.

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Appendix: History of the Ute People

While at Jarvie Ranch, students will have the opportunity to discuss Ute lifeways with a Park Ranger.

Utes are part of the Numic, sometimes called Shoshonean, language group. The Shoshonean people are grouped into three major linguistic groups, the Western Shoshonean, Central Shoshonean, and Southern Shoshonean. Utes fall into this last category, the Southern Shoshonean. The Utes call themselves Nuu-ci (or Nuche), which means "The People."¹⁴

The Utes believe that the Creator, Sinawav, and Coyote were the first ones to live on the Earth. Then, Sinawav cut sticks and placed them in a bag. Sinawav then told Coyote to take the bag to a very specific valley. Coyote became very curious about this bag and its contents. On his way, he opened the bag, and out spilled people speaking all sorts of different languages. These people scattered about. Knowing that he only had a few people left in the bag, he continued to the Sacred Valley. There, he poured the rest of the people out. These people would be very brave. This would be the Ute people.

The Ute people lived in the region that spans the modern-day states of Utah, Colorado, New Mexico, and Wyoming, stretching as far as Kansas for centuries before they came into contact with Spanish explorers, Anglo-American fur traders, miners, and ranchers.

Ute culture is deeply attached to the land. There were several sacred sites within Ute Country. These include Pikes Peak (Tavakav) and the region of Bears Ears National Monument. According to the Ute people the bear that taught them the Bear Dance sleeps at Bears Ears and keeps watch over them.¹⁵

There were twelve bands of the Ute people that lived in this vast range.¹⁶ Each band consisted of kinspeople and close associates. However, it is important to note that these bands were loose organizations where people could intermarry and move between them.¹⁷ The boundaries between bands were very porous. People moved throughout the region in search of game, edible plants, and fish. For example, the Timpanogot Utes lived in the area surrounding Utah Lake, however they traveled into the mountains in search of game. People also moved in and out of various bands as they intermarried and traded.

¹⁴ From Jones, *Being and Becoming Ute, 2019,* p. 8.

¹⁵ From "A Spiritual Reason Utah Tribes Want to Protect Bears Ears: It's Their Eden and Plays Into Their Stories of Creation," by Bob Mins, *Salt Lake Tribune*, April 17, 2018.

¹⁶ See "Ute Map 1" for the name and location of each of these historical Ute bands.

¹⁷ From Jerry D. Spangler, *Paradigms and Perspectives: A Class 1 Overview of Cultural Resources in the Uinta Basin and Tavaputs Plateau, Volume II,* 1995.

When explorers, trappers, and traders started coming into Ute Country, Utes controlled the area. They also controlled travel and trade within the region. Other groups, such as the Shoshone traveled into the Ute country often, causing disputes between them. When Europeans came into the region, they typically faced a demand for tribute from the Utes.

Utes lived in two different types of houses depending on location. Eastern Utes lived in tipis, similar to other Plains Indians. Western Utes lived in homes called wickiups, which were hut-like homes with grass roofs.

Utes were adept basket weavers. They wore deerskin leggings and jackets, as well as rabbitskin robes when the weather was cold. They hunted deer, bison, and foul and also caught fish in abundance. Additionally, the Utes ate roots, berries, and seeds which they made into a gruel. They traded with the Pueblos and the Navajos for items such as corn, blankets, cotton, sheep, and goats. In return, the Utes provided horses, beaded bags, otter skins, and buffalo robes.

The new economic and social connections made between the Ute and the Spanish traders led to drastic cultural change. As mentioned above, one vehicle for change came with the introduction of the horse. Many speculate about when the Utes gained access to horses, however it is clear that by the 1640s the Utes gained a deep understanding of horse culture, changing the way in which they did business and interacted with other tribes and Europeans. In fact, "Utes acted as the major conduit of horses west of the Rocky Mountains after the Pueblo Revolt of 1680".¹⁸ Horses were a source of wealth and power for the Ute. It also meant more access to big game, slaves, and material wealth. The horse-mounted Ute were intricately connected to the slave trade in the Western United States, with Spanish officials reporting Ute trade in the 1700s.¹⁹

Utes often raided smaller, horseless groups for slaves, then sold them throughout the region. Horses became an integral part of life for some Utes, however not all Utes adopted the horse as a way of life. Perhaps due to a lack of access, Western Utes continued older lifeways, without horses; fishing and gathering were mainstays. Additionally, horses were a less viable option for the Ute the further south and west one goes. This is due to the fact that horses compete for resources with people and forage is generally lacking in that region.²⁰

Along with the horse, weapons often altered the dynamic of power between groups. In the 1700s the Plains Indians had more access to weapons from the French traders, giving them an advantage over the Utes. This started to shorten the Ute reach into certain regions for hunting and trade. At this point, the Ute began to lose ground on their original territories.

¹⁸ From Gregory Smoak, Email message to author, February 26, 2020.

¹⁹ From Jones, *Being and Becoming Ute*, p. 34.

²⁰ From Smoak, Email message to author, February 26, 2020.

Before the end of the eighteenth century, Ute territory would be threatened again, this time by cartographers.

As the Spanish began to colonize North America from the South and West, they saw the Ute as hostile enemies. Trade from the Pueblos decreased leading to an increase of raiding from the Utes. The slave raids led to military expeditions into Ute country. These Spanish run military drills into Ute country destructive in casualties, but also due to the captives that they took away. Spain allowed the taking of captives for labor when they were taken during a "just war." As early as 1606, Spain started targeting Ute bands. In 1716 another attack led by Governor Martinez against the Ute ended in killing many, starting a war of retaliation that lasted for 30 years.²¹ The borderland between New Spain and Ute country became dangerous grounds for retaliatory attacks and slave raids. Spain decided to reinforce the Chama River Valley by forcing colonists to resettle the previously abandoned region. Through state sponsored settlement, Spain began to encroach upon Ute territory. Utes negotiated for peace in 1752 and at the same time, the Ute became prey to Comanche attacks. The Utes turned to an alliance with the Spanish to fight against Comanche raids. Utes would continue to help the Spanish in ventures against Navajos and Comanches.

As the Utes used alliances with Spain to fight against Comanches, they were also able to gain a more solid foothold in the region. Utes controlled the flow of trade and travel in Ute Country. Spain also benefited from the alliance. It allowed the empire to have a buffer between them and Comanches. It also created inroads into Ute country for trade. Spain then sought new ways into Ute Country seeking silver and gold.

Juan Maria de Rivera led a Spanish funded expedition into Ute Country in 1765. Rivera's mission was to find Ute country, where the mythical Aztecan Aztlan was to be located. Rivera was also to find a way across the Colorado River. When his Ute guides showed him the crossing, he dismissed them, although this would be the crossing that many used later.

On July 29th, 1776, two Catholic priests, Fray Silvestre Valeze de Escalante and Father Atanásio Francisco Dominguez, set out on an expedition to explore the Great Basin. Later that year, they camped near what is today known as Dinosaur National Monument along the Green River. It was at this time that the Utes met them. Escalante and Dominguez wrote their observations down along with detailed maps of the region. It was due to Escalante's travels that Spain was able to set up alliances with the Utes. They also mapped out a new passage to the Great Basin through Utah and Western Colorado using mainly American Indian trails.

One such new passage would become known as the Old Spanish Trail. The Old Spanish Trail was monumentally important to future traders and explorers as they would follow the

²¹ From Jones, *Being and Becoming Ute*, p. 37-39.

same path into Ute country. The new road would continue to bring in threats to the boundaries of the Ute people as Europeans continued to explore the region.

The Old Spanish Trail became integral to the North American Fur trade and Ute country sat at the center of it all. Several fur traders and trappers, often referred to as Mountain Men, traveled into the Uinta Basin and Uinta Mountains between 1812 and 1847. Utes often allied themselves with various fur trappers based on shifting political climates.

The Ute set up partnerships with several fur traders and trappers. These Mountain Men, in turn, set up several forts throughout the Uintah Basin and Colorado Plateau to streamline the trade process. Three major forts were built in this region: Fort Uncompany, Fort Uintah, and Fort Davy Crockett. Here, Europeans and Americans exchanged goods for hides. For example, they received elk, otter, beaver, mountain sheep, and deer hide from Ute and Shoshone traders. Competition was fierce and Utes were known to go to Fort Uintah with these hides in exchange for tools, guns, and ammunition.

While trade benefited both groups, it had a devastating effect on the wild life throughout the region. One of the last rendezvous for the fur trade was at Brown's Park.²² William T. Hamilton stated:

Several traders had come from the states with supplies, and there was quite a rivalry among them for our furs...Besides the trappers, there were at the rendezvous many Indians -- Shoshones, Utes, and a few lodges of Navajos -- who came to exchange pelts for whatever they stood in need of. Take it all in all, it was just such a crowd as would delight the student were, he studying the characteristics of the mountaineer and the Indian. The days were given to horse racing, foot racing, shooting matches; and in the evening were heard the music of voice and drum and the sound of dancing.²³

The last rendezvous was held in 1842. This was in part due to a decline in the global market for fur. In addition, fur bearing animals were over hunted to fuel the trade. As such, the period of time that the Mountain Men were actually influential in the West was relatively short.

With the loss of so many game animals, Utes eventually had to rely on begging and stealing to get access to food and goods. This left settlers and travelers through the region uneasy and oftentimes the situation turned to violence.

Following the short, yet intense, fur trade, several American expeditions set out to explore the American West. A fascination with the West, expansion, and discovery had taken the nation, especially following the Mexican American War. John C. Fremont was the first American government explorer sent to chronicle the West in 1843. Fremont first entered the Uinta Basin on his way back East during his first expedition. Of Brown's Park, he noted that it was

²² John Jarvie Ranch is located within Brown's Park.

²³ From William L. Tennent, John Jarvie of Brown's Park, 1981, p. 15.

"considered among the most dangerous war-grounds in the Rocky Mountains."²⁴ While Fremont did not often comment on the American Indian populations that he encountered often, his expeditions produced many maps and detailed descriptions of the areas in which he traveled.

Freemont's expeditions into and through Ute country opened up the region for American and Mexican settlers.²⁵ Mormon settlers rushed into the area after the summer of 1847. They first settled the Salt Lake Valley, but quickly turned to other areas within the region. These settlers set up military forts against the Utes and continued to settle. They often took land away without any compensation to the American Indians in the region.²⁶

In 1848, as the Mexican American War ended, many Americans in both the South and the North viewed the West as a place to renew the market and expand slavery. They saw new opportunities in the West. That American Indians had lived there for centuries did not matter. These new settlers were determined to take the land as they saw fit. Additionally, the federal government had made promises to New Mexicans that they would be protected from American Indian attacks. This created an enemy out of the Utes and other American Indians. The government sought ways to deal with the "Indian Problem" and the land.

In 1849, the Capote band leader, Chief Quixiachiagiate and twenty-seven other leaders met with James C. Calhoun, New Mexico's Indian agent. The leaders signed a formal treaty that authorized the federal government to have control over all of the Utes. Quixiachiagiate did not have the tribal authority to make such a move. Many Utes rejected the legitimacy of the 1849 treaty. The treaty also allowed the federal government to set up reservations, to force agriculture, and settlement. This early treaty would be used to justify future treaties all under the pretense that a united Ute confederation existed, when this was not the case.

Federal Indian policy involved the assimilation of American Indian populations into sedentary, agricultural people. Mormon policy followed suit, but with a religious slant. The Church of Jesus Christ of Latter-Day Saints believed that the American Indians were descended from the biblical House of Israel that had traveled to the Americas and had fallen from the grace of God. The Mormons also believed that it was their duty to save the American Indians through baptism and intermarriage. Doing so would make them "white and delightsome."²⁷

²⁴ From John C. Fremont, *The Expeditions of John C. Fremont,* 1838-1844, p. 708.

²⁵ The Mexican War with Spain had just ended, making much of the West part of Mexico. Ute country was now within the political borders of Mexico. This did not stop American settlers from moving into the region. When gold was discovered in California, more pressures would be felt as miners and prospectors moved through the region in large numbers.

²⁶ From Jones, *Being and Becoming*, pg. 78-80.

 ²⁷ From "Mormons Altering Indian Prophecy," New York Times. October 1, 1981, Retrieved from https://www.nytimes.com/1981/10/01/us/mormons-altering-indian-prophecy.ht mormons for the Book of Mormon," Journal of Mormon Studies, Volume 28, 2019, pgs. 46-68.

In practice, the Mormons attempted to assimilate the American Indians. They sent missionaries to proselytize and baptize many people. Whether or not the Mormon theology was completely accepted by these new American Indian converts is up for debate. It is possible that the American Indians saw baptism as a diplomatic tool used to create relationships with the newly arrived Mormons.

In addition to religious adoption, Brigham Young, then the leader of the Mormon church, expected American Indians to assimilate to an agricultural way of life. This was vastly different from the semi-nomadic lifeways of the Utes. Agriculture required a sedentary strategy.

Additionally, agriculture and ranching changed local ecosystems, drastically altering Ute access to game. As an increasing number of Mormons colonized the region, the Ute people felt even more pressure on their livelihoods. Not only was land openly stolen from the Ute, it was increasingly difficult for them to live as they had for the previous centuries. With hunting on the decline, due to pressure from fur trappers and over immigration into the region, Utes were often left with no choice but to rely on the colonizers for food and goods. Also, although the Mormon leadership often talked of keeping good relationships with the American Indians, many Mormons did not keep the peace.

A Timpanogos elder, "Old Bishop," was murdered over the suspicion that he stole a shirt by three Mormon settlers (Jerome Zabrinsky, John R. Stoddard, and Richard Ivie). The men mutilated the body and attempted to hide the evidence by throwing Old Bishop's remains in the Provo River. When the body was discovered, the Utes were furious. They demanded justice by handing over the killers. When the Mormons refused, Ute leaders took matters into their own hands; Ute theft of cattle increased. Utes and Mormons stocked up on munitions and supplies. Tensions continued to rise and in no time, Fort Utah was under siege and running practice drills. With the support of Brigham Young, Mormon leader Parley P. Pratt, and John W. Gunnison, punitive action was taken. Young wrote, "I say go kill them...Let the women and children live if they behave themselves...We have no peace until the men [are] killed off."²⁸ It would not be until four years later that the truth of Old Bishop's murder would be explained to Young.

On February 8, 1850, Peter Conover led troops to Utah Valley and attacked Chief Opecarry's and war leader Pariat's camp. For two days Utes held off the attack. The sick and injured fled during the night through two feet of snow, some heading south and others toward Rock Canyon. Major General David H. Wells pursued these refugees and attacked them at Goshen Marsh. The results were disastrous for the Utes. The women and children were taken prisoners. The men were all killed. The following day, Stansbury had the heads of all the dead Ute men removed to take as trophies and scientific research.²⁹ The work of war was far from over. The troops then headed to Rock Canyon to kill those camped there.

²⁸ From Jones, *Being and Becoming*, p. 85.

²⁹ From Jones, *Being and Becoming*, p. 86.

Many had already died of exposure or disease. Pariats' wife was among the deceased having fallen to her death after an attempt to climb the cliffs and get away from attackers.³⁰

Life was becoming increasingly difficult for Utes. Utah Indian Superintendent J. H. Homan stated that they were:

Very much excited by the encroachments of the Mormons, as they are making settlements, throughout the Territory on all the most valuable lands...The Indians have been driven from their lands and their hunting ground destroyed, without any compensation...they are in many instances reduced to a state of suffering, bordering on starvation.³¹

In 1853, Utah Valley again saw war between Mormon settlers and Utes. The Walker War started after failed negotiations to settle the case of the murder of two Utes. As hostilities continued, Sowiette sued for peace. Settlers arrested and threatened to shoot him. He, and his band quickly left for Uintah Valley to escape further violence. Other Ute leaders also sought peaceful negotiations, including White Eyes and Antero.

The Walker War was characterized by several retaliatory killings and cattle theft. Brigham Young talked of creating peace and yet Mormon settlers in Utah Valley refused to obey. Although he was warned of the danger, Captain Gunnison continued into the region with a government survey crew. He was killed by a Pahvant man in retaliation for the killing of his father. The Gunnison incident caused the Walker War to end. Wakara and Young attempted once more to create peaceful negotiations, but the Governor expected the sale of Ute land and Wakara refused. In response, Brigham Young threatened to excommunicate Wakara.³² Wakara, in turn, attempted again to negotiate peace with his own demands. He wanted "full economic freedom, no interference with Mexican traders, and a large number of presents to cement the peace."³³ Young refused to accept Wakara's terms. Brigham Young counter offered with gifts. The two sides came to an eventual peace on May 11th.

Unfortunately, peace was not enough to save Utes from starvation and disease. Overcrowding from colonization, agriculture, and ranching altered the landscape. Water became a rare resource for the Utes, where before it was plentiful and accessible. Hunting ground and fishing spots had all been taken over by settlers and were depleted of resources. Timber was cut down, leveling forests as well. Winters were deadly, and without valuable

³⁰ Mormon and American settlers renamed this location "Squaw Peak." For current events regarding Squaw Peak and its naming, see McKenna Park, "Native Americans Advocate Squaw Peak Name Change," *The Daily Universe*, April 27, 2017. Retrieved from https://universe.byu.edu/2017/04/27/native-americans-provo-city-advocate-squaw-peak-name-change1/ on February 16, 2020.

³¹ From Jones, *Being and Becoming,* pg. 91.

³² From Jones, *Being and Becoming*, pg. 103.

³³ From Jones, *Being and Becoming*, pg. 105.

hides, fire wood, and the ability to move, the Utes had few options. By the end of the 1850s, life for the Utes had changed drastically.

Industries such as cattle and sheep ranching began to rise since the 1770s as demand for wool textiles rose. Land was in short supply and so the industry expanded North into New Mexico. After the Mexican-American War, which ended in 1848, settlers rushed into New Mexico and Colorado territories using the Old Spanish Trail in the spirit of enterprise. The illegitimate 1849 treaty did little to stop predations on American Indians in the region.

Using maps from explorers such as John C. Freemont, the Transcontinental Railroad sent surveys into Ute country starting in 1853. Topographical maps were not the only result of these surveys. Immigrants started coming into the region by the thousands. The new railroads would fuel the burgeoning cattle industry and the expanding nation.

During the Walker War of the mid 1850s, many Ute bands became tired of war and wary of Mormon settlers. The Uinta Basin was deemed unsuitable for agriculture and Euro-American settlers by George Washington Bean in 1852. Sent to the region by Brigham Young, Bean concluded that the "finest timber was here [Uinta Basin], but not much land in a body suitable for cultivation."³⁴ As such, Young did not send Mormon settlers into the region.

As settlement in the Utah, Sanpete, and Sevier Valleys increased so did the demand for additional Ute lands. The displacement of Utes and the tension of wars caused Ute bands to move into the Uinta Basin. One solution was the creation of Ute farms, which were, in reality, small reservations.³⁵ Mormon settlers and the federal government both decided that agriculture was the best route for American Indians. These farms were highly unsuccessful. The winter of 1859-1860 was especially difficult for Utes. Many died of starvation and exposure. Utes turned again to theft of Mormon cattle.

Mormon leaders urged the United States government to create a reservation for the Utes. In 1861, Henry Martin, then Indian agent for the region, petitioned the federal government to create a reservation in the Uinta Basin. The region was reported to be without an "oasis" and was "one vast 'contiguity of waste,' and measurably valueless, excepting for nomadic purposes, hunting grounds for Indians and to hold the world together."³⁶ Being unsuitable for Euro-American settlement, politicians argued that it was perfect for American Indians. President Abraham Lincoln established the Uintah Reservation on October 3, 1861. By 1865, all Ute claims to lands in Utah were terminated. Mormon expansion into the Sanpete and Sevier Valleys, the failed responsibility of the federal government to provide provisions, and the starvation that resulted in neglect during the Civil War created the circumstances that

³⁴ From Spangler, *Paradigms and Perspectives*, pg. 699.

³⁵ From Warren Metcalf, "A Precarious Balance: The Northern Utes and the Black Hawk War, *Utah Historical Quarterly*, Volume 57, Number 1 (Winter 1989): pgs. 24-35.

³⁶ From "Uinta Not What Was Reported," *Deseret News,* September 25, 1861.

led to the Black Hawk War.³⁷ The series of raids were also connected to the extreme loss of hunting grounds and game in the region. James Duane Doty reported that he found the Utes "in a state of destitution, and suffering severely from want of food and clothing, and no provision had been made for their relief."³⁸

The Spanish Fork Treaty was created in June of 1865. Several Ute leaders, Superintendent of Indian Affairs, Oliver H. Irish, and Brigham Young entered into negotiations. Many of the Ute band leaders agreed to the terms of the treaty which included money, protection, and homes if they signed and would be removed to the Uinta Basin. However, the following winter was especially harsh and the federal government failed to follow through on their end of the treaty. Those leaders that did not agree to the Spanish Fork Treaty connected with Ute bands and other tribes.³⁹

Band leader, Black Hawk (Autenquer), directed raids on Euro-American cattle and Mormons traveling into and through the region starting in 1864. While possibly not a full blown incursion, the Black Hawk War was, in reality, an increased series of raids by less than a hundred hungry Utes.⁴⁰ Several Utes, though not directly involved in the raiding, offered support in the form of ammunition, boarding, and food to Black Hawk's band, even though they were warned not to by the federal government. A handful of band leaders, including Sanpitch, were arrested on charges of providing ammunition to Black Hawk. Sanpitch was subsequently wounded while in a Manti jail. Mormon militiamen killed the wounded man as he tried to escape.⁴¹ The Black Hawk war was brutal, costing many lives on both sides. While the American Indians involved focused mainly on stealing cattle, they also killed several civilians. However, the largest act of violence during this time occurred at Circleville in 1866. The Circleville Massacre was the greatest massacre of American Indians in Utah history, with a loss of multiple Paiute lives after the settlers killed captive men, women, and children.⁴²

In Colorado, dispossession occurred differently than in Utah. Utes in Colorado and New Mexico faced an ever-increasing population of immigrants into the region, beginning in 1847. The federal government first espoused similar policies as the Mormons; that of assimilation, extermination, and later of conciliation. However, none of these strategies were satisfactory until the forced removal of Utes to reservations.

³⁷ From Warren Metcalf, "A Precarious Balance: The Northern Utes and the Black Hawk War," *Utah Historical Quarterly,* Volume 57, Number 1, 24-35.

³⁸ From James Duane Doty, "Utah Superintendency," *Annual Report of the Indian Affairs*, U.S. Office of Indian Affairs, United States, 198.

³⁹ Spangler, *Paradigms and Perspectives*, 699-712.

⁴⁰ From Metcalf, "A Precarious Balance," *Utah Historical Quarterly*, 26-28.

⁴¹ From Spangler, *Paradigms and Perspectives*, 699-712.

⁴² From Albert Winkler, "The Circleville Massacre: A Brutal Incident in Utah's Black Hawk War," *Utah Historical Quarterly,* Volume 55, Number 1, (Winter, 1987), pg.122-129.

The process of removal in Colorado was prompted by the discovery of gold in 1858 and lasted until the 1870s. Suddenly, prospectors and miners poured through the "southern and eastern boundaries of Ute homelands as well as the passes they used to access the Plains."⁴³ Once Colorado was established as a territory in 1861, federal officials started searching for solutions to American Indians who inhabited the region. This included the Ute.

Similarly to Utah, the Utes in Colorado and New Mexico felt the crunch of colonization by Euro-American settlers. Hunting lands were decimated and eventually controlled by Euro-Americans as well as Plains Indians. The Utes in this region had to resort to begging and theft in order to survive. Raids on settlers occurred where Utes were becoming most desperate for food and supplies. This changed by the 1860s, as it became increasingly clear that the American military was quite powerful, especially after the Civil War. A handful of leaders from the Mouache, Capote, and Tabeguache Utes eventually turned to diplomatic solutions.

In 1863, a few Utes gathered at Conejos to negotiate a treaty, which included representatives from the Tabeguache and Grand River bands. The leaders in attendance were considered leaders of a non-existent confederated Ute tribe, where in reality no such singular tribe existed. The 1863 Tabeguache Treaty established legal precedent for future treaties even though it was not, in fact, representative of the entire Ute Nation. Among those that signed the treaty included Ouray (U-ray), Colorow, and Nevava (Novavetuquaret).⁴⁴ Included in the treaty was a cession of land that belonged not to those in attendance, but to other Ute bands. The lands included in the treaty would house future mines. Included in the arrangement was the unstated understanding that smaller reservations would be set up once these mines were established. The federal government was to provide provisions, money, and protection. Part of this agreement included agricultural and ranching equipment. The treaty was misunderstood by the signatories as they believed they were establishing a boundary for their hunting grounds. The treaty was ratified by Congress, however the provisions from the federal government fell short of the treaty's obligations.

Additional gold and silver mines were found throughout the 1860s resulting in an influx of Euro-American settlers into Ute country. While some American policy makers argued for a more forceful approach to American Indian removal, others sought peaceful solutions. Utes were again urged to enter into new treaty arrangements. A delegation of ten Ute leaders traveled to Washington, along with Kit Carson, to sign a new treaty. On March 2, 1868, they created the Ute-Kit Carson Treaty. This treaty created a Confederated Ute Reservation, which would be fifteen million acres in Western Colorado. It is important to note that the Utes who signed the treaty did so with the understanding that they would not be confined to a specific district. The reservations, to them, were lands reserved for hunting. They did not expect to be restricted to such an area. Instead, the federal government insisted on

⁴³ From Jones, *Being and Becoming Ute,* 120.

⁴⁴ From Jones, *Being and Becoming*, pg. 122-129.

relocating the Utes to the reservation. A few months after the 1868 treaty was signed, twothousand Utes gathered in Colorado to protest the treaty. Unfortunately, their protests did nothing to change the provisions of the treaty. Additionally, even though the treaty provided protection to the Utes from American incursions, the military withdrew its services from the reservation. Prospectors continued to pour into the reservation in search of gold.

Utes began to become agitated at the increase of settlers and prospectors into the reservation. While at the same time, Coloradoans sued the federal government to reduce Ute lands. They argued that the Utes had too much land for the number of occupants. Additionally, silver and gold mines were found within the reservation. Congress then passed the 1871 Indian Appropriations Act with a provision that prohibited all future treaty making. By the end of 1872, all Indian nations were considered dependent nations of the United States. As such, Indian agents and the Utes gathered to create a new agreement, not a treaty. After several attempts to come to an arrangement, the Brunot Agreement was signed in 1873 which ceded lands in southwest Colorado due to the discovery of silver mines. This agreement reduced Ute lands.

By the time the Brunot Agreement was ratified, many Utes expressed disagreement with the conditions of the arrangements. While they retained hunting rights, they again lost a good portion of their lands. By the 1870s, many Mormons and Coloradeans saw fertile grazing lands in Ute reservations. Additionally, Ute populations began to decline dramatically due to starvation, war, and disease.⁴⁵

During this time of forced removal to reservations, the federal government insisted on making the Utes and all American-Indians learn to live in Euro-American lifeways, that is: agriculture and ranching. Many Utes despised this. In 1878, Nathan C. Meeker became the agent of the Yampa, or White River, Utes in northwestern Colorado. Meeker believed that he could create white men out of the Utes there. He forced them to build houses and to farm. When Meeker plowed through a prized horse track, many Utes became incensed and fired off shots. Meeker then sent for the Army. Utes interpreted this as a movement toward war. When the Army, led by Major Thomas T. Thornburgh, marched into the Ute reservation, Utes, led by Colorow, attacked. Thornburgh was killed in the battle and the Army troops lay under siege for several days. During this time, Utes led an attack against the agency, killing Meeker and a dozen others, and took his wife and children hostage. Ouray negotiated the release of the hostages weeks later.

Colorado politicians used the incident as an excuse to further dispossess Utes in the state. They insisted that the Utes could not be trusted to live in peace. Subsequently, Colorado Utes were forced to move to the Uintah Reservation. Much of the land was not suitable for agriculture. The Uncompany Reservation was established in 1882 by President Chester A. Arthur, but much of the land was desert.

⁴⁵ From Spangler, *Paradigms and Perspectives*, pg. 707.

In 1887 Congress passed the General Allotment Act, which is also known as the Dawes Severalty Act. The Dawes Act changed the way in which reservations were maintained. Instead of having a reservation which benefited the collective Indian nation, allotments of 40, 80, or 160 acres were given to individual tribal members. The rationale behind the division of land was to open up land for Euro-American settlement. This resulted in a checkerboard pattern of private lands within reservations. Once gilsonite, a form of asphalt, was found in the Uintah Basin in 1888, land was quickly opened up for settlement and mining. This vein was located directly inside of what was the Uncompander Reservation.⁴⁶ By 1898, Uncompander land was opened for legal mining. Utes were further dispossessed of their lands as another land rush commenced.

A delegation of Ute tribal leaders went to Washington to insist that the federal government uphold treaty and agreement obligations. In response, President Theodore Roosevelt set aside over a million acres of the reservation for the Uinta Forest Reserve, created a townsite, and opened Ute land for homesteading. 282,460 acres were set aside as tribal lands.⁴⁷ The proclamation created yet another land rush of Euro-American settlers into the region.

The White River band (Yampahs) of Utes were especially outraged by the loss of their way of life. As more land was lost to American settlers and starvation continued, they decided to leave the reservation. While the press at the time represented this group of disgruntled Utes as dangerous and suing for war, the fact of the matter is that they were instead seeking a peaceful resolution to the depredations on their lands and a return to previous lifeways.⁴⁸ Led by Red Cap, the White River Utes left Utah and traversed through Wyoming. Wyoming settlers became uneasy with the caravan of Utes traveling through their state and attempted to get the federal government to take action. However, because the Utes were peaceful, no action could be taken. Captain C.G. Hall, the Ute agent in Wyoming stated:

As long as they [the Indians] are peaceful and do not threaten hostility it does not seem that the Federal Government would be justified in interfering with them. Moral suasion has been used with little apparent effect in inducing them to return to their homes, it would therefore seem at present that the case is one for the local authorities rather than for this Department.⁴⁹

The Utes' peaceful journey took them through Wyoming and into South Dakota. However, the people of Wyoming continued to push for federal assistance in removing the Utes. Major-General Greely sent the Tenth Cavalry to discuss the matters at hand with Chief Appah. While there, additional soldiers were sent in to "overawe them and persuade them to return

⁴⁶ From Spangler, *Paradigms and Perspectives*, pg. 730.

⁴⁷ From Spangler, *Paradigms and Perspectives*, pg. 730.

⁴⁸ From Floyd O'Neil, "An Anguished Odyssey: The Flight of the Utes 1906-1908," *Utah Historical Quarterly,* Volume 36, Number 4, pgs. 315-327.

⁴⁹ From O'Neil, "An Anguished Odyssey," pg. 321.

quietly to their homes."⁵⁰ From there, they were escorted to Fort Meade, South Dakota. Once in South Dakota, the Utes sought the assistance of the Sioux. Unfortunately, the Sioux were unwilling, and quite possibly, unable to help the wandering Utes.

The White River band faced a dilemma: fight alone, turn around and go back to their reservation, or stay and work for two dollars a day.⁵¹ Some of the Utes decided to take jobs with the railroads. One of these railroads refused to pay Utes after losing money. Other Utes went to Rapid City to work on roads and fences. Government agents insisted that the Utes sell their horses, but the Utes refused as this was a source of wealth. By 1908, many Utes expressed wishes to return home to the Uinta Basin. The federal government offered to help and paid them \$9,920 to assist on the route back to Utah.⁵²

Today, the Ute remain a very versatile people. Many of the Ute tribe are divided among the three reservations. The Uintah and Ouray Reservation is located in northeastern Utah. The Ute Mountain Reservation is located in the southwest corner of Colorado. The Southern Ute Reservation is just east of the Ute Mountain Reservation. The Ute celebrate their culture through art, basketry, intricate beadwork, song, and dance. They have annual celebrations that include the Bear Dance and powwows. The Ute have an active tribal government that promotes sovereignty and the needs of Ute tribal members.

⁵⁰ From O'Neil, "An Anguished Odyssey," pg. 323.

⁵¹ From O'Neil, "An Anguished Odyssey," pg. 325.

⁵² From O'Neil, "An Anguished Odyssey," pg. 325-326.

John Jarvie Historic Ranch: Jarvie Ranch Extension, Ute Lifeways

Authored by: Amanda Scheuerman

LESSON PLAN DETAILS

Time Frame: 30 minutes

Group Size: 1-30

Intended Learning Outcome: Students will gain an understanding of the Ute culture and their historic lifeways.

Jarvie Ranch Extension: Ute Lifeways

By: Amanda Scheuerman

Background for Ranchers

Prior to teaching this lesson, ranchers should know the history of the Ute people. See accompanying lesson plan.

Students visiting the John Jarvie Historic Ranch will have an opportunity to discuss Ute lifeways and culture with visiting students. The Ute tribe lived in Utah, Wyoming, Colorado, and New Mexico prior to European colonial settlement. They seasonally lived in Brown's Park as well.

Background for Students

Prior to beginning this lesson, students should learn about the history of the Ute. See accompanying lesson.

Ute Lifeways and Culture

The Ute lived in a variety of ways which differed according to region and band. The original word that the Utes called themselves "Nuu-ci" or "the People." The word "Ute," or "Yuta"

came from the Spanish. Brown's Hole was called "A-kum-pu-wo-kuts" which meant Sunflower Valley.⁵³

According to Ute tradition, the Utes lived in Utah, Colorado, Wyoming, and New Mexico since the time that Sinawav (the Creator) and Coyote placed them here. Sinawav asked Coyote to carry a bag of sticks to a sacred valley. Coyote was incredibly curious and opened the bag several times along the way. Each time he did, he released people. Finally, Sinawav learned of this and firmly instructed Coyote to carry the rest to the sacred valley. Coyote did this and released the Ute people into the region. Sinawav said that these people would be very strong and brave.

The Ute as a whole were historically made up of twelve bands. These bands today make up the Northern Ute, Southern Ute, and Ute Mountain Ute tribes. Bands were loosely organized extended family and kin groups that lived, hunted, and gathered together that were historically led by older members or those that earned such positions.

The Ute lived in family groups of around 20-100 people. Hunting and gathering occurred seasonally depending on the region the band lived in. Culture was also influenced by regions and neighboring tribes. The Ute people that lived further west, for example in Utah Valley, lived in domed willow houses. Those that lived further east lived similar to the Plains American Indians and lived in teepees.

Ute men hunted buffalo, deer, antelope, rabbit, and beaver. They also fished in the rivers, lakes, and streams that made up their homelands. Women gathered seeds, roots, nuts, and berries and processed meat. The Ute wore robes made from rabbit skins and from leather. Some of the Ute bands acquired the horse after the arrival of the Spanish. Horses then became integral to Ute culture. Ute women excelled at basketry, creating works of art that were also quite functional.

Many of the Ute tribe are divided among three reservations. The Uintah and Ouray Reservation is located in northeastern Utah. The Ute Mountain Reservation is located in the southwest corner of Colorado. The Southern Ute Reservation is just east of the Ute Mountain Reservation. The Ute celebrate their culture through art, basketry, intricate beadwork, song, and dance. They have annual celebrations that include the Bear Dance and powwows. The Ute have an active tribal government that promotes sovereignty and the needs of Ute tribal members.

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