Malakoff Diggins State Historic Park

Environmental Living Program

(Revised 9/28/2017)

www.malakoffdigginsstatepark.org
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Environmental Living Program (ELP)
Malakoff Diggins State Historic Park

We are pleased to offer the Environmental Living Program (ELP) at Malakoff Diggins State Historic Park for students who are studying gold rush history. Students, camping one or two nights, will participate in this living history program and experience the living conditions of a gold mining camp. The program began in 1989 and continues today with school participation from all over the state. The program continues to develop as new ideas are tried and perfected.

The Program Overview

The Environmental Living Program camp site is located a short walking distance from the old historic town of North Bloomfield, a 45 minute drive north-east of Nevada City, California. This site has been designed to accommodate school groups, teachers, parents and helpers to give them the feel of living in a gold rush camp back in the eighteen hundreds. Students will be eating and learning crafts from that era and participate in a scavenger hunt located in several of the historic buildings in the old town. This learning experience is no doubt enhanced by how well the school recreates the time period.

The program is based on approximately 40 students with 10 adult supervisors. There are five canvas-covered miner’s cabins available for the students. Each cabin sleeps 8 students and one adult comfortably. Additional tents, if needed, may be erected by the parents behind the student tents. Groups with less than twenty (20) students usually stay one night, having plenty of time to participate in all the activities that are provided. Groups larger than 20 students and/or traveling a greater distance, make it a two-night stay.

Prior to the overnight visit, the student should be well versed in the gold rush story. This should include historical research as well as developing a fictional gold rush character for themselves. Student activity groups should be developed with each team coming up with a skit or a story about their way west. These skits may be shared around the campfire along with period songs and music.

There is an on-site storage shed with several supplies and cooking utensils available for use during your stay. Each school will be supplied with enough crafting material for each student as well as firewood to heat the candle pot and fire pit for cooking. Call our office for a current detailed list of supplies that are provided.

Instructors are in charge of the ELP during their park visit. Good organization before the trip will make for a successful outing. This would include assigning parent helpers to specific activities, making schedules, buying supplies, and preparing the students. Each program is graded according to organization, authenticity, and innovation to see which instructors are invited back the following year. Because this is mostly an outdoor experience, we generally run programs the middle of April into June. Weather is always a concern and planning for wet and/or cold conditions is recommended.
ELP Program Overview – Continued:

Activities

The students, dressed in miner's costumes, live in canvas tents and learn to do activities such as:

- Candle Dipping
- Cloth Dolls
- Crocheting
- Gold Panning
- Lucets
- Rope Making
- Slate Writing
- Tug-o-War Rope
- Tinsmithing
- Wood-Working
- Cooking over an open fire.
- Other period activities might include, hauling water/firewood, tending fires, cleaning the camp, and perhaps a hike to the old cemetery and hydraulic diggings site, or to Blair Lake.

Training

Instructor training for all ELP teachers and helpers will take place each year, usually the first Saturday in April. We encourage teachers to have several parents or helpers attend this training so they are familiar with instructing the crafts should someone not be able to attend at the last minute. Scheduled programs are held from mid-April through the first week in June. An instructor’s manual is available online at our web site: www.malakoffdigginsstatepark.org, “School Programs.”

Registration/Fees

You may register to be a part of this program starting in the fall of the previous school year. Returning instructors receive priority scheduling using a lottery system.

There is a park fee of twenty dollars ($20.00) per student, per night for use of the ELP facilities. This fee includes all adults that will be participating in the program. Along with other costs for food and craft supplies, the total per child cost for this program may be estimated at thirty to thirty-five dollars. In addition to the ELP fee there is a required separate $50.00 cleaning deposit, which, upon satisfactory inspection of the grounds and ELP site, will be returned.

Please call for additional information: 530-265-8125.
Directions to Park

Pavement Route:
This is the preferred route to North Bloomfield, especially for school buses. You will travel on pavement the entire way.

The park is located 26 miles northeast from Nevada City. Travel time is 45 minutes from Nevada City.

Leaving Nevada City, turn right onto Hwy 49 towards Downieville. Travel north 10.5 miles to Tyler-Foote Crossing Road. There you will see a large sign for Malakoff Diggins State Historic Park.

Turn right on Tyler-Foote Crossing Rd for 9 miles. Just follow the double yellow line. The road will change to Cruzon Grade Rd (Tyler-Foote bears left); stay on Cruzon Grade Road for approximately 4 more miles. The road name changes again to Backbone Road.

At the intersection of Backbone Road and Durbec Road (large Malakoff Diggins SHP sign), turn right and travel down the hill for about a mile.

At the intersection of Derbec Road and North Bloomfield Road (Malakoff Diggins State Historic Park sign) turn right to the park.

The Chute Hill Campground is 1 mile down on your right. The old historic town of North Bloomfield and park headquarters is a mile and a half from the turn.

Gravel Road Route:
This route is not recommended for RVs, busses, trailers, motorcycles or motor homes. These vehicles should use the pavement route via Tyler-Foote Crossing Rd.

It is 16 miles from Nevada City to Malakoff Diggins State Historic Park and the town of North Bloomfield. Travel time is 40 minutes from Nevada City.

Leaving Nevada City, turn right onto Hwy 49 towards Downieville for 1/3 of a mile. Turn right on to North Bloomfield Road. You will travel on a paved road for approximately 8 miles. The road changes from two lanes to one lane going down the canyon to the South Yuba River. At the river you will cross a one-lane bridge and then drive on gravel (road can be quite bumpy) for 8 miles to the park and the old historic town of North Bloomfield.
BACKGROUND INFORMATION

Placer Mining - Separating the Gold

Although gold had been discovered in California by the early Native Americans and Mexican populations, the “Gold Rush” finds its beginning in 1848 when gold was discovered by James Marshall at Sutter’s Mill in Coloma. The rush to the California gold fields was on. For the first year or two gold was easily attained, yield was near 12 cents per pan. A dedicated miner could make wages of $20.00 daily.

Within two years, easily attained gold was depleted and it was considered a good claim if color was found in five or six pans. Wages were down to $3.00 a day. At this time, gold panning was still the most efficient way of recovering gold from any type of gold bearing material, however, it was very tedious and backbreaking labor. With a gold pan, a miner can process about \( \frac{1}{2} \) cubic yard of material a day. The rocker box was not quite as efficient, however one could process about eight times as much material on any given day. A sluice or Long-tom (a long sluice) is only \( \frac{1}{2} \) as efficient as a gold pan, but with this device you could process four to eight yards of material. Now even though you are only recovering \( \frac{1}{2} \) of the gold in any given amount of gravel, you could realize more profit with less back breaking effort. You would be capable of processing up to 16 times the amount of material than with the traditional gold pan.

After gold was collected in sluices it had to be removed and then separated from the accompanying debris. Quicksilver (mercury) was used for this purpose. It was deposited in the sluices and mixed to form an amalgam (quicksilver, gold and other materials). This amalgam was then removed from the sluice floor and taken to the “Pan House” where the dirt was removed. The amalgam was converted to its component parts with a retort. In the retort the quicksilver vaporizes and the gold is left behind. This gold is commonly called “sponge.” This sponge is poured into graphite crucibles and heated once more and then poured into molds. To stop the gold from sticking to the mold, a carbon deposit was formed on the mold by burning a pitchy stick. The gold was then shined up with nitric acid and sent off to Nevada City.
In the early spring of 1852, Eli Miller (a tinsmith), Anthony Cabot (an engineer), and Edward Matteson (a jack-of-all-trades), met in Sacramento and decided to come up to the gold fields to try their luck. They pooled their resources and set off to find work as gold miners and wound up in the area known as “Deer Creek Dry Diggins” (Nevada City). It did not take long to learn the use of ground sluices, rocker boxes and long toms. Once they became accomplished in these techniques, they decided to do some prospecting of their own. Matteson stayed on at the diggings they had found employment while Miller and Chabot founded a new claim at Buck Eye Hill, near Red Dog. Since ground sluicing was completely controlled by spring runoff and snow pack, (no water, no sluicing) the three partners looked for summer work in what is now known as Nevada City. Matteson went to work for A.B. Caldwell, owner of Caldwell’s Upper Store, as a freight wagon driver. When the autumn weather started its cooling trend, Chabot and Miller returned to their claim and awaited the wet weather. Matteson stayed on with Caldwell to deliver supplies to all the mining claims. While waiting for the rains, Chabot made a 100 foot six inch diameter hose from strips of saddlebag canvas and Miller constructed a three-foot funnel. With this invention it was now possible to bring water to the Diggins which was far better than taking your excavated gravel to the water for processing.

Late in 1852 or beginning 1853, when Matteson finished his work at Caldwell’s and joined his companions at their claim he suggested that another funnel be turned around and attached to the discharge side of the hose. A three-foot nozzle with an inch and a half outlet was fabricated by Miller and when attached, began a new era in gold mining techniques.

With this new contraption, they had created a monster. More earth was loosened than the sluice could handle. Miller built a 200-foot long 12-inch pipe in 12-foot slip-jointed sections to bring water down to a distribution box (designed by Matteson), which had two six-inch hoses attached. With this system, enough water came to the sluices to handle all the earth loosed by the nozzle. Caldwell backed the manufacture of these devices as he wanted the same type of set up at his own claim at American Hill, just to the north of Nevada City. Because Matteson was seen bringing equipment to American Hill he was given the credit for the invention of Hydraulic Mining.

Obviously the need for water with this type of system was much greater than simple ground sluicing operations, and at this time they were paying 75 cents per miner’s inch of water. The Miner’s Inch was a much-disputed measurement for water consumption that was used in most mines. In 1901 Legislature determined that a Miner’s Inch was 1 ½ cubic feet of water through any given source of water transportation in one minute or 90 cubic feet of water an hour. The water bill at this claim of the three partners ran $153.00 a week however they were capable of making $50.00 per day per partner.
Invention of Hydraulic Mining - Continued:

Matteson also was responsible for a hydraulic derrick used to move large boulders out of the workings and a hydraulic powered set of steel bars on a portable platform for prying large cemented types of materials loose. He also invented a device for keeping debris from entering the intakes of hydraulic systems. All though he invented these and other power tools, he failed to seek patent rights and died a poor man in Nevada City in 1903. His gravesite is still unknown.

In 1853, sheet iron pipe was introduced and used by R.R. Craig on American Hill in Nevada City. By 1856 a firm in San Francisco began to manufacture wrought iron pipe for hydraulic mining.

In 1856, Chabot left the gold fields of California and pursued his interests in engineering. He is credited for San Francisco’s first regular water system in 1858. He also developed a water system for Portland, Maine and Milwaukee, Wisconsin. He became one of the incorporators of Oakland’s Gas Light Company in 1866. He built the dam on San Leandro Creek (now Lake Chabot) and was partly if not solely responsible for water systems in Oakland and San Jose. He died in the bay area a multi-millionaire in 1888, leaving over $85,000 to charities in the greater bay area. The Chabot Observatory is named after A. Chabot.

Note: Hydraulic mining contributed approximately ¼ of California’s gold yield.
Water Supply

The objective was to collect and store large quantities of water at an elevation considerably higher than that of the ground to be worked, then transport this water to the mine and feed it to the monitors via a closed pipeline. Main ditches generally followed the sinuous topographic contours with flumes and pipelines constructed to convey water along steep slopes and across steep ravines. At the delivery end water was impounded in smaller reservoirs for immediate use. From these intermediate reservoirs, ditches carried the water to the head of the supply line, notably pressure boxes. These boxes eliminated air bubbles, removed sediment, and calmed the turbulent waters. A large iron funnel was attached to the bottom of the pressure box, which conveyed the water from the trough to the pipeline. The main pipe itself was constructed of iron sheets, rolled and riveted to form a cylinder up to 2’ in diameter. Ideally, this pipe descended to the Diggins in a direct line as possible. These feeder lines were equipped with air valves at strategic points to allow escape of entrapped air while filling and to prevent the collapse of pipe due to the vacuum that would be created if a break in the line occurred. Water was diverted to one or more lateral lines, usually of smaller dimension, which fed the hydraulic nozzle. The monitors and lateral lines were moved across the main floor as the surrounding banks receded.

The major water supply for the working of the Malakoff Mine was delivered via the Bowman ditch. The origin of this ditch was the Bowman Reservoir located at the headwaters of the Yuba River at Big Canyon Creek. The ditch was 40 miles long, 5’ wide at the bottom, 8.65’ wide at the top and 3 ½ feet deep. It had a grade of 16’ per mile. Water from the ditch was delivered to Waldron Reservoir for Malakoff’s needs. The ditch was completed in 1869 by 800 Chinese workers and 300 whites.
Drain Tunnels

Hiller Tunnel

This tunnel was built between 1851 and 1856 and financed by Dr. Hillerscheidt and Dr. Albert. Dr. Hillerscheidt claimed water rights in 1857. The history and records were burned at the County Recorder’s office in 1856, so no prior claims are known. The tunnel was used for drainage at a small mining concern at the present site of Malakoff Diggins. This mine was later bought by North Bloomfield Gravel Mining Company. (Today, you can walk through this 557’ tunnel if the water is low. You will need a flashlight.)

In 1860, Julius Poquillion bought up small mining claims at very low prices. Many of the miners were moving to better pickings in Nevada and Canada. He soon owned 1,535 acres and had plans to develop a large scale mining operation. In 1866, he succeeded in attracting investors from San Francisco and developed the North Bloomfield Gravel Mining Company. As the company expanded they bought he Bowman Ranch and developed a reservoir and ditch system to bring more water to the diggings. These were designed by Hamilton Smith Jr. and work was completed on September 15, 1870. The company soon discovered that they were using more water than the Hiller Tunnel could drain and they would soon be working below the level of the tunnel. They decided to build a bigger tunnel down closer to bedrock and below the blue gravel layer, which contained the most gold. Again the services of Hamilton Smith Jr. were called upon.

North Bloomfield Tunnel

This drainage tunnel was begun in April or May of 1872. Eight shafts were sunk at 1,000-foot intervals in line with the proposed tunnel. Two crews would go to the bottom of the shaft and begin digging in opposite directions on the tunnel line. Ultimately there were some fifteen crews digging simultaneously to complete the hard rock tunnel. On November 15, 1874 the tunnel was completed. It has been estimated that this is one year sooner than the feat could have been accomplished had it simply been dug from the head of Humbug Canyon straight through to the Malakoff Diggins.

The mouth of the tunnel was 6 ½ feet high and six feet wide. From shaft six to shaft eight, the tunnel was eight feet square. At its starting point in the Diggins, the tunnel was 75 feet below the gold bearing gravel of the ancient tertiary river channel; but by the time it opened on to the Humbug Canyon, the tunnel was nearly 400 feet beneath the channel. It was important for the tunnel to be in bedrock to that when debris washed down shaft eight and into the tunnel, the force would not completely distort the shape of the tunnel. The debris flowed down the tunnel at a 4% grade and out into the Humbug Canyon where it moved one mile further, along “under currents,” before dumping into the South Fork of the Yuba River. The men employed to dig this tunnel were paid between $3.50 and $6.00 per eight-hour day.

Although the tunnel and its eight shafts are now filled with debris and water, it is still considered one of the engineering feats of all time. Hamilton Smith Jr., without the aid of sophisticated engineering tools and instruments, accomplished what many modern engineers could not. (If you hike down the Humbug Trail you will see a few airshafts, fenced and filled with water.)
North Bloomfield Beginnings

As legend has it, in 1851 or 1852, a prospecting party consisting of two Irishmen and a German, discovered a rich deposit of gravel on the north bank of a creek, about 15 miles from Nevada City and three miles up from the South Yuba. After a short time their supplies began to diminish and it was decided that one of the Irishmen would go to Nevada City for food and equipment. Before departing, the Irishman pledged total silence to his friends as to the whereabouts of their claim. When he arrived in Nevada City, with several hundred dollars’ worth of gold dust, many of the townsfolk took notice at the size of the Irishman’s poke. After procuring the necessary goods, the miner stopped at a local tavern and discussed his good fortunes with local miners, but even free liquor would not pry the information from the miner as to the whereabouts of his claim. The prospector left town before sunrise, however his leaving did not go unnoticed. He was tracked and followed by more than a hundred eager miners, waiting for him to show the way to these well-hidden riches. When the miners arrived, a tent city arose on the banks of the creek and expectations of untold wealth were envisioned. The pickings were disappointing and the disgruntled miners labeled the area as a “Humbug,” meaning lousy claim. Many of the prospectors returned to Nevada City. However, a few remained and referred to their settlement as “Humbug” or “Humbug City” and the creek as Humbug Creek.

After several years, the residents had submitted “Humbug” as the name of their town in order to get a post office. The Postal Service, having received too many requests for that same name during that time period refused all requests. The name “Bloomfield” was submitted but there already existed another town by that name in Sonoma County. They finally settled on the name of “North Bloomfield” in 1857.

The origin of the name “Malakoff” given to the mine as is not certain. It is possible that the name was brought to this country by the French miners. The French were involved in the Crimean War (1855-1586) where a great battle was fought at Fort Malakov (Malakoff) in Russia. It seems that the cliffs of the mine may have reminded them of the area surrounding the Russian fort. A story has also been told about a rock abutment above the harbor at Cornwall, England also named Malakoff. Many Cornish miners came to the area during the gold rush and may have given the mine its name. Finally, there is one reference in our archives to “A. Malakoff and Company,” in a historic newspaper article.
Malakoff Diggins Statistics

North Bloomfield Gravel Mining Company

• The company became incorporated in 1866 and operated until 1910. The corporation owned 1,500 acres total, 1,200 of which was mining ground.

• Of the 50,000 shares of stock, 45,000 sold at $30.00 per share,

• In 1876 the company began full operation of mine, 12-hour shifts from 6 a.m. to 6 p.m.

• In 1880 electric lights were installed in the mine, powered by hydraulic generators.

• Malakoff operations excavated 41 million cubic yards or gravel between 1866 and 1884. This yielded $3.5 million in gold at $17.00 per ounce.

• The company took out $3,500,000.00 worth of gold, but invested $3,500,000.00 to pay expenses.

Malakoff Mine Pit

• Total daily water consumption for the North Bloomfield Gravel Mining Co. was more than 100 million gallons or enough water for 1.7 million people to bathe individually.

• The monitors or water cannons could produce 500 psi of water pressure, 16,000 gallons of water per minute and 1 million gallons per hour.

• When operations ceased the pit was 6,800’ long, 3,800’ wide and 600 feet deep.

North Bloomfield Tunnel

• The drainage tunnel was 7,878 feet long, 6½ feet high, 6 feet wide with a grade of 4½ feet for every 100 feet. The shafts averaged 197 feet deep and were situated 200 feet below the Hiller Tunnel.

Bowman Reservoir

• The source of water for North Bloomfield’s hydraulic mining was the headwaters of the Big Canyon Creek and the Middle Fork of the Yuba River in Sierra and Nevada Counties.

• This crib and rubble dam was completed in 1876. It was 96½ feet high and stored 930 million cubic feet or 7½ billion gallons of water. It cost $151,512.44 to build.
Malakoff Diggins Statistics – Continued:

Water Distribution System

- There were 43 miles of ditches and flumes that cost the corporation $700,000. Over 800 Chinese and 300 Whites in 1868 we employed to build the distribution system.

- The company’s ditch system had a capacity of 3,200 miner’s inches or 5,440,000 gallons per day.

- The iron pipes or “penstock” carried the water from a water reservoir on the property to the hydraulic monitors in the pit. For every two feet of vertical drop, the water coming out of the monitor’s nozzle created 1 pound of pressure.
Timeline: 1850-1859

1850 –
The Gold Rush had run its course. Easily attained gold was depleted, and it was considered a good claim if color was found in five or six pans. Wages were down to $3.00 a day. It had been up to $20.00 a day in 1848. (See Placer Mining section)

Zachary Taylor is president of the United States but dies on July 9 and is succeeded by his vice-president Millard Fillmore.

California admitted as a free state in the Compromise of 1850. Mexican cession is to be divided into territories of New Mexico and Utah.

1851 -
Gold is discovered in Humbug Creek. (North Bloomfield)

North Bloomfield settlement begins as a mining camp named “Humbug.” Population jumps to 300 almost overnight. (See North Bloomfield Beginnings section)

1852 –
Hydraulicking is invented by Matteson, Miller and Chabot. (See Invention of Hydraulicking Section)

1853 –
Sheet-iron pipe was introduced and used by R.R. Craig on American Hill in Nevada City.

Franklin Pierce elected fourteenth President of the United States.

Lafayette Hotel in North Bloomfield begins. It had a ballroom, saloon and sixteen beds.

1854 –
Kansas and Nebraska become U.S. territories. Commodore Perry negotiates a trade treaty with Japan.

Britain and France declare war on Russia – The Crimean War.

1855 –
Hotel de France, the second hotel in North Bloomfield, was built next to the Livery Stable. It was 1-½ stories and had a canvas roof.

The town begins to develop with houses along both sides of Main Street and many others just off the beaten path.

French forces finally succeed in taking the Malakov Tower in the Crimean War in Russia.
Timeline: 1850-1859 – Continued:

1856 -
A firm in San Francisco began to manufacture wrought iron pipe for hydraulic mining.

Jacobs and Co. having not enough water for sluicing began to use a rocker and re making $10 to $18 dollars a day per person.

Twenty to twenty-five framed houses now in Relief Hill with more being built. This community is two miles east of Humbug and three miles south of Snow Tent.

Blacksmith shop belonging to Joseph Singer (near picnic area) shows up on the delinquent tax roles for Humbug City.

Quitman’s Lodge #88 (Masonic Temple) was at Orleans Flat. County Court House burns July 19, 1856 destroying all records including the boundary lines of the Eureka Township, which included Humbug.

Lafayette Hotel and the Irwin House served as Hotels. Two general stores were in existence: Mayhew & Pettijean (location of McKillican and Mobleys General Store) and Johns & Taylor. There was also a saw mill in the vicinity of Marten’s Ranch (Creegan’s Sawmill). Franz and Esche build a saloon, later enlarged into a hotel.

As early as 1856, farmers in Marysville were complaining of debris in rivers but because of mining income to the community they build levees to protect farmlands.

1857 –
Dr. Mark Emerson became first postmaster of North Bloomfield (Humbug) on June 15th. (See Bloomfield Beginning Section)

First public schoolhouse constructed (near the picnic area). U.S. Hotel built and North Bloomfield had connection with North San Juan by daily stage.

Population of town was approximately 500.

Rush Dix Skidmore moves into town and operates a bakery. (See Skidmore House section.)

James Buchanan elected the fifteenth U.S. President.

Charles Davis indicted for murder of Louis Miller (Mueller) at Humbug last July. Davis pled not guilty. Ellen Miller, daughter of deceased, testified Davis asked her father to let her go to the circus that evening. Miller refused. Fight started. Both ran outside out of her sight, she heard pistol shots. Miller kept a public house and Davis often ate there. Conversation leading to the fight started in barroom. There was some testimony that Miller had a gun. Mrs. Miller said she heard Davis tell Miller he would shoot hm.
Timeline: 1850-1859 – Continued:

1857 - Continued:

Charles Davis sentenced to one year in San Quentin for manslaughter.

There was difficulty at a ball given at Lafayette House in Humbug between John Enders and Louis Goldberg. Goldberg stabbed Enders in the side and victim grabbed the knife, trying to pull it out and made wound worse, December 23, 1857.

Westerfield and Co. in operation next to the U.S. Hotel (at picnic area), selling hats, caps, boots and shoes as well as gentleman’s furnishing goods.

John Enders died at Humbug, December 26, 1857.

1858 –

North Bloomfield becomes an official town site and is the center of the Bloomfield Township. Included was Relief Hill, Lake City, Derbec, and as far away at North Columbia.

Large stable erected for California Stage Company by Rush Skidmore.

North Bloomfield Livery and Feed Stable operated by J.P. Sims. (Located in picnic area.)

137 votes cast in North Bloomfield on 8/28/58. Polling place was office of Justice of the Pease, James Holland.

A.L. Smith now owns and runs daily the pony express started by W.J. Westerfield will serve North Bloomfield.

“The Miners News” the title of a new manuscript paper will be published at North Bloomfield by James Marriot.

Joseph Thomas purchased Humbug State Lin3 and now makes regular daily trips in Cherokee, Columbia Hill and Humbug.

School funds for North Bloomfield with 42 students amounted to $34.44. (Semi-annual fee)

Serious accident at Relief Hill. Jack Wilson, an Englishman, and a Frenchman, Jean Richards, died. Employed by G.K. Reed. They were in tunnel, tapping out clogged shaft when accumulated dirt and water escaped and sluiced them out and down the hillside, terribly mangled. 6/15/59

Murder suspected. Disappearance of Michael Perfumo, an Italian merchant of Humbug. His dog was found shot. 1/29/59

Mr. Franz, resident of Humbug, shot by Mr. Margenburg in Alleghany town. Mr. Franz could not give consent for Margenburg to marry his daughter. 3/29/59
Timeline: 1850-1859 – Continued:

1859 - Continued:

J. Franklin, workman on Magenta Flume was fatally injured last Saturday. Working on ground and 126 feet above him on an aqueduct, a German was at work with a carpenters chisel. Chisel slipped out the handle and in falling, struck a brace, which threw it off at an angle and gave it a rotary motion. Shank struck Franklin just back of left shoulder and came out near left nipple. Chisel lodged in wound. Other workman pulled it out. Dr. R.M. Hunt happened to be in the vicinity, was sent for. Wound bleeding profusely. No hope he would recover. 8/3/59

Constables C.F. Smith and Levi Ayers appointed for the North Bloomfield Township by the board of supervisors.

Malakoff Co. on Virgin Creek cleaned up $1,200 for three men within a week. They were operating with two pipes and planned to add four more.

North Bloomfield School Census shows 45 children between four and eighteen years old, fifteen below the age of four.

Citizens in western part of Utah Territory are trying to form their territory to be named Nevada. They did not want to be governed by Mormons.
Timeline: 1860-1869

1860 –

U.S. census shows 784 inhabitants of North Bloomfield. Abraham Lincoln elected U.S. president.

Lathaw inaugurated as governor on January 16th, a democrat, pro-slavery. In office only a sort time when he applied for and received and appointment to the U.S. Senate to fill the vacancy of Senator Broderick killed by Judge Terry in a duel on 9/13/59.

Tragedy strikes North Bloomfield. The exhaustion of surface claims and shortage of water due to drought conditions causes the exodus of miners to Nevada's Washoe county and the silver mines. A depression set into North Bloomfield.

Skidmore operates a two-story saloon on the corner of Relief Hill Road and North Bloomfield Road. (See Skidmore House section)

Building on the site of the Kings Saloon was constructed as an express office.

Lake City booming with hotel, French restaurant, several houses, and grocery store. A lake owned by the Eureka Lake and Miner’s Ditch Company is part of the sub-division.

A common miner by the name of Julius Poquillion purchased several placer mining claims at depression prices. He soon owns 1,535 contiguous acres.

Many vacant houses in North Bloomfield. General store owned by Brownell (formerly Mayhew and Pettijean, presently McKillican and Mobley) and bakery owned by Skidmore.

Frenchman named Alphone Baptist, working in a tunnel near North Bloomfield injured by a discharge of dynamite. Set charge and lit fuse, left tunnel. After 15 minutes Baptist went back into tunnel. Dynamite exploded in his face, still alive. 1/1/60

On July 22nd at Humbug, difficulty arose between Mr. Monier and an Italian named Castania. The Italian stabbed Monier. Castania examined before Justice Marriott and bail set at $4,000, assault with intent to commit murder. Monier recovered. On August 3rd, Italian stabbed by Monier’s wife with kitchen knife. Woman not arrested. 8/8/60

A trial for Italian Castania, who stabbed Monier at North Bloomfield, held on Saturday. Jury out four hours. Verdict – acquittal. Indictment against Mrs. Monier dismissed on motion of District Attorney. 9/19/90

Man named LeBlanc was shot and killed in mining claims of Chas Hakell near Arnolds Ranch (Lake City) last Wednesday. Shot by S.T. Nipher, night watchman. Accomplice arrested at Humbug. LeBlanc, native of Canada, was 28 and had been living around North Bloomfield for six or seven months without visible means of support. Entered tunnel - equipped with flour sack, scoop, brush, candles, matches, bowie knife and pistol. Nipher questions and released. 1/1/3/60
Timeline: 1860-1869 – Continued:

1860 – Continued:

Skidmore House is built (See Skidmore House Section)

Senators Gwin, Lathan and Lane announced in the U.S. Senate that under certain conditions the western states would set up their own independent government. The editor believed that Oregon and California would remain loyal to the Union. Secession of the South appearing more and more possible.

Humbug Flume some 2,000 feet long was completed after four years of work. It was owned by Dr. Hiller. This allowed the independent mining companies to move their tailings down the Humbug drainage after flowing through Hiller Tunnel.

1861 -

North Bloomfield school attendance approximately 40 children.

Civil War begins when Mississippi, Florida, Alabama, Georgia, Louisiana, Texas, Virginia, Tennessee, Arkansas, and North Carolina secede from the union.

Lake City has A-1 hotel, two stores, large French restaurant, hose factory, sawmill, mechanics shop, express office and coming soon a Catholic church. 1/19/61

A patriotic Union Club was organized at North Bloomfield to show support for the federal government and constitution. Showed disdain for the idea of forming a pacific republic. Recognized only the Stars and Stripes. 5/1/61

Dr. Hiller, at his mining claim, is “using four pipes, each having a fall or pressure of 180 feet perpendicular and with which he seems to be purging the very bowels of the terrestrial globe.” 6/15/61

Lorenzo Sawyer in Nevada City. Formerly practiced law in that place. Left there in 1853, lived five or six years in San Francisco and had a practice there. Spent past two years in Illinois. 6/18/61

1862 –

Rush Dix Skidmore marries Elizabeth Plitch in North Bloomfield on 5/27/62. (See Skidmore House Section)

The Federal ironclad Monitor engaged the Merrimac in naval warfare. A “monitor” was a revolving gun turret.

Homestead Act served to displace the Plains Indians and develop the western states.

Union and Central Pacific Railways are chartered and given large land grants by Congress.
Timeline: 1860-1869 - Continued:

1863 –
Town population rapidly declining nearly depopulated.

1864 -
The thirteenth amendment is passed, prohibiting slavery.

1865 –
Lincoln is assassinated on April 14.

1866 -
Poquillion succeeded in attracting investors and formed the North Bloomfield Gravel Mining Company. The company soon owned 1,535 acres and brought in not yet highly refined monitors and proceeded to work the claims. The yield was 13 cents per cubic yard of gravel. Water was plentiful, as there had been over 100 inches of rainfall this past year and the North Bloomfield Gravel Mining Company managed to show a profit its first year.

A real duel – Two Frenchmen, residing at North Bloomfield fought a duel near that place Sunday last. Dispute arose between Souchett and Picard in relation to an account of $14.00, which the former claimed to have against the latter. Challenge was accepted. Preliminaries arranged, weapons chosen, Colt six shooters. Principals and Seconds repaired to the field, the latter, desiring to prevent effusion of blood, capped weapons, loaded them with ball, no powder. Principals stationed and discovered trick of seconds. Combatants determined to fight without Seconds. Pistols loaded and parties repaired to field alone. At 25 paces fight began, parties firing rapidly and advancing. One fired six shots, the other five, the cap snapping in one case. Souchett advanced upon his antagonist and beat him over the head until he was nearly dead. Picard had a gash around the head, which might have been made by a ball. Save this, neither injured by shooting. Picard almost insensible from effects of whipping. 9/26/66

Alaska purchased for $7,200,000 on March 30th.

1868 –
North Bloomfield Gravel Mining Company purchased the Rudyard or English Dam at the head of the middle fork of the Yuba River, then the largest reservoir in California. This was actually three dams made of stone and wood. The highest dam was 125 feet wide, spanning the south fork of the Yuba River. A ditch ran 80 miles to the mines below. Shortly thereafter, they purchased the Bowman ranch; 160 acres surrounded by mountain on three sides. The North Bloomfield Gravel Mining Company constructed the first dam of Bowman Lake originally 65 feet high and 215 feet long using trees, mud and rock. (See Water Supply Systems.)
Timeline: 1860-1869 - Continued:

1868 – Continued:

The NBGMC employed 60 to 80 men. Fifty men were digging a ditch from Poorman’s Creek 24 miles long just past Snow Tent. 8/27/68

Thursday, the NBGMC expect to have 500 Chinese working on ditch. Company sometime since bought a number of mining claims near North Bloomfield. On Tuesday last, filed articles of incorporation with the Secretary of State with capital stock fixed at $800,000 in 8,000 shares. 9/3/68

1869 -

Transcontinental Railway completed May 10th.

Ulysses S. Grant elected eighteenth U.S. President.

Prohibition Party first organized in U.S.

Wyoming, first state to institute women’s suffrage.

Fire at North Bloomfield, originated in stable belonging to Skidmore, spread to United States Hotel, kept by J.B. Henry, and to store and dwelling of C. Nash family. Family left destitute. 1/17/69

Exhibition by school children of North Bloomfield earned $162 with an expense of $30. A.A. Smith was teacher. 2/22/69

NBGMC will soon extend their ditch to Big Canyon Creek. They will keep 8 pipes going. Company has purchased Bowman’s Ranch and proposes to erect a dam this summer. 4/11/69
Timeline: 1870-1879

1870 –
Hamilton Smith Jr. designed the Bowman Ditch, which was finished on September 15, 1870. (See Water Supply Systems)

The McKillican-Mobley store building was given the side storehouse addition by T.P. Crandall in 1870. (See McKillican-Mobley Store Section)

Jay Ostrom set up his Livery Stable in a building built in the 1850s.

Within the next four years, the North Bloomfield Gravel Mining Company grossed $494,250 at approximately 15 cents per cubic yard of material. 3 ¼ million cubic yards of material were excavated. In any given 18 months, there was enough material moved to fill the Erie Canal.

U.S. Census: North Bloomfield 636.

1871 –
During the next nine years, hydraulic mining produced 121 million dollars, more than half the total gold yielded in the state of California.

1872 –
Hamilton Smith engineered the North Bloomfield Drain Tunnel. The tunnel is 7,878 feet in length and 200 feet below the Hiller Tunnel to bedrock. (See Drain Tunnels.)

A.A. Smith buys the corner lot on Relief Hill Road. (See Smith-Knotwell Drug Store section.)

At this time in North Bloomfield there was a butcher shop, a blacksmith, a brewery, and a billiards salon.

1873 –
New schoolhouse erected at cost of $3,700. Original price was to be $2,900 but the contractor went over cost and the townspeople decided to raise the extra money by increasing their own taxes. Religious services were held on weekends. (See North Bloomfield School section.)

King’s Saloon moves into the express office building. (See King’s Saloon section.)

The North Bloomfield Drain Tunnel is completed on November 17th. (See Drain Tunnel Section.)
Timeline: 1870-1879 - Continued:

1873 – Continued:

Silver discoveries in Nevada.

Francis Blain (Blair) loses agricultural claim to land that was needed by the NBGMC. Adolphus Lind the superintendent of the NBGMC was put in charge of the new land and was moved into Blain’s house as caretaker. One March evening after leaving a saloon to head home, he was murdered. Four shots fired, a cry heard, found with four gunshot wounds, and a hatchet wound to the head. Suspicion fell on Blain and he was arrested. Indicted by a grand jury in May but acquitted by a jury in 4/25/74. Built a house on upper end of his property where Jeffer’s rental was.

Seventy-one students attend North Bloomfield School. Quarterly apportionment by state is $106.50.

Stores, saloons business houses, dwellings and a large hotel being built at Malakoff. This was a new section of North Bloomfield.

Ed Cummings builds a saloon and adds the dance hall in 1878.

1874 –

Washburn and Pillsbury introduce the process of reducing wheat to flour by the use of chilled steel roller.

North Bloomfield has population of 500. This includes five hotels, eight saloons, two dry goods stores, two grocery stores, three lodging houses, one lunch house, one brewery, one barbershop, one blacksmith, one butcher shop, three boot makers, one bakery, two livery stables, one post office, three express offices, one physician, one drugstore, one dentist, one notary public, one justice of the peace, one lodge of Redmen, one lodge of Templers, a tri-weekly stage from North San Juan to North Bloomfield and a daily stage to a from Moore’s Flat and Nevada City.

A.A. Smith is the Justice of the Peace. (See Smith-Knotwell Drugstore section.)

1875 –

Because of tremendous amounts of water discharged through monitors, the Yuba and Feather Rivers flooded Marysville and Yuba City, resulting in a serious loss of lives.

For the next six years, continuous court battles in progress, farmers with injunctions against miners and mining companies with over-rulings of these injunctions.

Peter Lund who was operating the Esche and Franz saloon moved to Relief Hill with his family and opened a boarding house. The saloon was sold to Carion and Buga of North San Juan. For some reason Lund soon returned to operate the saloon and enlarged it into the North Bloomfield Hotel.
Timeline: 1870-1879 - Continued:

1875 – Continued:

Boarding house at shaft #6 operated by George Edwards burned to the ground. He moved into town and built the three stories Grand Central Hotel, next to the General Store.

First U.S. factory to use Bessemer steel-making process built by Andrew Carnegie.

1876 –

Levees were built around Marysville to protect the city and farm field from floods. It became known as “The Walled City.”

In May, the French Hotel, containing Penlon’s saloon, burned to the ground. (The saloon was heavily insured at the time and the fire was believed to be arson.) The fire burned from the Zigenhin house to Relief Hill Road. It burned the Helwig’s Butcher Shop, Dr. Farley’s office, the McKillican’s storehouse and the Skidmore Saloon, among others. Skidmore later rebuilds a two-story structure. (See Skidmore House Section.) In October, another fire burns the Hotel de France, next to the livery stable. A man by the name of Harmon lost his life and it was supposed that he was the cause of the fire since he had the habit of smoking a pipe while lying in bed.

A. A. Smith builds Drug Store. (See Smith-Knotwell Drugstore section.)

North Bloomfield Gravel Mining Company is now in full operation. Seven “CRAIG” monitors (similar to Hendy Giants) with up to 8” diameters in use 24 hours a day. Miners worked a twelve-hour shift, 6 to 6 and at night used kerosene lanterns with large reflectors and pitch torches. A well-paid miner earned $2.50 a day or just about 21 cents an hour.

Patent granted for the manufacture of barbed wire.

First intelligible sentence transmitted by telephone by Alexander Graham Bell.

Colorado becomes a U.S. state.

1877 –

Rutherford B. Hayes elected nineteenth president of U.S.

1878 –

Ed Cummins added a large room to his saloon to be used for dancing, social events and theatrical presentations.
Timeline: 1870-1879 - Continued:

1878 – Continued:

Ridge Telephone Company organized in North San Juan. It was owned by Milton Water and Mining Company, North Bloomfield Gravel Mining Company, and Eureka Lake and Yuba Canal Company. The line cost $6,000 and was 60 miles long with 22 stations. The line was used in management of ditches and claims.

The Anti-Debris Association was formed and soon petitions were submitted to the legislature, requesting laws to control mining operation.

A survey by state engineers shows 18,000 acres of one fertile farmland was buried by mining debris.

1879 –

Thomas A. Edison invented the incandescent electric light, maintaining incandescence for over 40 hours.

The community all along San Juan Ridge was shook by news of the brutal murder of banker William F. Cummings of Moore’s Flat. The stage that day was heavily loaded. Cummings was believed to have been carrying $7,000 in gold. Cummings occupied the front seat with Matt Daily, the driver. Two bandits held up the stage. One armed with a double barrel shotgun, lined up the passengers and searched them for weapons or valuables. The robbers grabbed Cumming’s valise and a scuffle ensured. As the bandit and Cummings rolled upon the ground the other bandit with a shotgun endeavored to get a shot at Cummings. The man with the shotgun shot and killed Cummins at close range. The stage was held up at Rock Creek, three miles north of Nevada City. The robbers, John Collins, a San Quentin parolee, and Charles Thrones were arrested in the east by Lees and Aull. They were arrested in the fall of 1882 and returned to Nevada City. Thorned was sentenced to life in San Quentin in 1883 and Collins was hung in the jail yard at Nevada City on February 1, 1884.
Timeline: 1880-1889

1880 –

Electric lights were installed in the mine that was powered by a hydraulic generator. Possibly lights were driven by a Pelton Wheel, which was manufactured in Nevada City. This of course was much more efficient in lighting the Diggins at night than previous methods. Malakoff was now using 160 million gallons of water in a 24-hour period.

White population was 1,279.

John Knotwell becomes partner in Smith-Knotwell Drug Store. (See Smith-Knotwell Drug Store section.)

Since 1860, there has been 6,500 miles of ditches built for hydraulic mining purposes statewide.

1881 –

Hydraulic mines along the Yuba and Feather Rivers were ordered to shut down by the court in order to study the effects of mining on these rivers. Miners went to farmlands in search of employment. Merchants in the area suffered because of dwindling population and began boycotting valley goods.

John Knotwell marries Nettie Smith, the daughter of A.A. Smith on July 20. (See Smith-Knotwell Drug Store section.)

1882 –

Miners have invested $110,000,000 hydraulic mining.

Mining companies proposed compromise, such as building debris dams if farmers will drop the legal proceedings. The farmers wanted no part of this. Some of the larger mining operations built these dams.

September of 1882, legal proceedings of “Woodruff vs. North Bloomfield Gravel Mining Company” started. Judge Lorenzo Sawyer stated. “Debris in rivers is from ALL hydraulic mines, not just one.” Sawyer made several trips to North Bloomfield Gravel Mining Company and other mines and found the debris dams already overflowing.

About a week ago Pierre David, who had long been in the employ of North Bloomfield Company, was at work when a portion of a log that he had chopped rolled upon him and broke one of this legs. It was subsequently found necessary to amputate the injured limb and at 8:00 p.m. Saturday, the unfortunate man died. 12/13/82
Timeline: 1880-1889 - Continued:

1883 –

English Dam (first reservoir purchased by the North Bloomfield Gravel Mining Company) was inspected and found to be in excellent shape, no leaks, weak points, etc. Three days later the dam broke releasing millions of acre-feet of water down the Middle Fork of the Yuba. Sabotage was suspected but never proven. The Milton Mining Company seasons water was lost (subsidiary of North Bloomfield Gravel Mining Company) and property damage suites left this subsidiary company bankrupt.

1884 –

January 7th – Sawyer Decision on Woodruff Case – this did not close down hydraulic mining; however it did impose strict laws regarding debris and did close all loopholes. “All tailings must stop.” This decision was 225 pages long.

In January of this year, one month’s cleanup was over $114,000 at $17.00 an ounce for NBGMC. At $500.00 an ounce, that would be approximately $3.4 million dollars.

A.W. Smith stabbed Antonio Barteldo twice. 10/22/84

Andrew Trottier, employed at Derbec Drift Mine, ignited four dynamite blasts. Only three exploded and he returned to ascertain what prevented the fourth. Just as he stooped over it, the charge went off, killing him instantly. 12/13/84

1886 –

North Bloomfield Gravel Mining Company found in contempt as they had been operating their monitors at night and were fined heavily. North Bloomfield Gravel Mining Company installed an elevator system that would pull debris from the tailings and retain it in holding ponds. This extras step in the process hindered greatly the production capabilities, reducing he profit margin. It did however satisfy the Sawyer Decision.
Timeline: 1890-1930

1896 –
U.S. District Court declares mining without this permit was illegal. North Bloomfield Gravel Mining Company once again found in contempt and fined heavily. At this point litigation had been immensely expensive and had depleted a large amount of the Companies assets.

Malakoff closes sometime in the late 1890s. The North Bloomfield Gravel Mining Company was unincorporated in 1910. Landsburg and other locals “bootleg operated” the mine for a period between 1910 and 1930. They had no ownership or authorization.

1911 –
Rush Dix Skidmore dies on August 2nd. (See Skidmore House section.)
Historical Buildings in North Bloomfield

Cummins Hall (Park Headquarters and Museum)
This building was built sometime in the 1860s. Originally it was the Eureka Freight office then Ed Cummins purchased it in 1873 and remodeled it into a saloon.

Ed, an Irishman, arrived in North Bloomfield in the mid 1860s and raised a family of five children, most of them born in town. He added on the “hall” in 1878 when he felt there was a need to have a place for major town functions, dances, school plays, and parties. He built a raised stage where traveling musicians and theater groups would perform, then move on to nearby communities. The stage doors are still visible today on the back wall.

Ed closed his business in the early 1890s and retired. He passed away in the late 1890s.

The building now houses the park’s office, museum and the park association’s sales center. Stop by and see the many items for sale. Proceeds help support the various interpretive and educational programs.
Historical Buildings in North Bloomfield

King’s Saloon
This original structure was built in 1860 and was operated as an express office. Jack King remodeled this building as a saloon sometime between 1873 and 1875. Jack was a large, active man and oftentimes took measures into his own hands when drunks became obnoxious. The saloon was believed to be one of seven and perhaps nine saloons in North Bloomfield during its heyday. Saloons were the primary social gathering spots in town for the miners and because of the lack of public entertainment, the proprietors did well financially.

North Bloomfield had two beer breweries, the Weise Brewery, on the west side of town and the Hieronimus Brewery, currently part of the foundation of the former Landsburg residence, located on Main Street. Beer was five cents a glass and was the most popular drink since it was so inexpensive. Beer was kept in the basement since refrigeration, as we know it today, was lacking. When the beer supply became low, Mr. King simply disappeared through the trap door and retrieved additional beer from the frigid subterranean room. Locally made beer was served draught style from 5, 10, 15, and 25 gallon barrels. Imported beer was contained in ceramic bottles and was believed to be a bit expensive and subsequently not consumed on a large scale. Hard liquor was not manufactured locally and thus had to be imported from Sacramento or San Francisco. The freight fees incurred from shipping made the cost prohibitive for miners. A half-pint of whiskey, for example, might cost as much as $2.00 per bottle. This was near the average miner’s daily wage.

There were few women in town and the saloon owners discovered they could attract business by paying women to be present in their establishments to converse with the miners. Some of the saloons in this area were known to pay $20.00 to $40.00 a day for this service. If a miner was capable of playing the piano, it afforded him the opportunity to generate some extra income. Tips and free drinks were readily given to those with musical skills.

The King’s Saloon we have in the park today is not an original building. It was reconstructed in 1974 to its original looking condition, based on photographs of the structure that stood on the site. Work was performed by State Park employees and members of E. Clampus Vitus, Chapter 10 of Nevada City, California.

In relation to old photos of this building and measurements taken from the Sanborn Map, the existing building is somewhat shorter in height and length then the original. This shows the difficulties in making historical reconstructions.
Historical Buildings in North Bloomfield

McKillican and Mobley General Store
The McKillican and Mobley store was built in 1856 in the settlement of North Bloomfield. T.P. Crandall was the first storekeeper and also served as postmaster. Crandall later took on a partner, R.D. McKillican and the store operated under both names until Mr. Crandall moved to San Francisco. Mr. McKillican retained two-thirds interest in the store with Walter Mobley acquiring one-third ownership and eventually the name changed to its current title.

As you approach the building you’ll notice six vertical columns that were once partially painted with a dark gray paint. The pillars were painted this color simply because it permitted horseback riders to tie directly to the columns. White would have attained a soiled look much sooner. The two boards with pointed tops on the front of the building are bulletin boards where election notices and returns, hunting regulations, theatrical presentations, and other miscellaneous information was posted. A letter slot at the post office window served as a mail drop.

The steel bars over the windows are an original feature of the security system. To further enhance the security of the store, an employee, generally the freight driver served as a night watchman and was required to sleep overnight in the 8 x 8 foot room in the north part of the building. There was also a large white pit bull watchdog to further discourage thieves. The store not only had valuable and much needed supplies, but also served as a gold exchange and a drop off point for gold shipments.

The proprietor of the store made two annual trips into one of the major supply centers. This was generally accomplished in the fall and spring. To enhance his inventory between purchasing dates, the owner would do some ordering by mail. When doing so, the freight would be shipped from either Sacramento or San Francisco to Colfax by Southern Pacific Railroad. From Colfax the merchandise was transferred to Nevada City by the Narrow Gauge Railroad, and then hauled by store freight teams to North Bloomfield.

The store had a wide variety of goods to select from. The Levis on the shelves are of historical influence as Levi Strauss manufactured the first Levis for the miners of the California gold fields. The store also sold kerosene for lamps, ammunition, hardware, mining supplies, stationery, soap, kitchen utensils, paint, some medications, eggs, oranges and bakery goods such as cookies, chocolate éclairs, fig bars, gingersnaps, etc. Canned meat, cured meats, deviled ham and dried foods were also available and were considered to be a staple part of the diet of this region. Mr. McGagin had milk cows, which supplied fresh milk to the community. Vegetables were not sold at the store since they were available at the China gardens for a minimal price. Fresh meats were available at the butcher shop across the street.

Gold was the normal means of exchange. It was either sold at the store or traded for supplies. Many of the merchants had scales for transaction purposes.
McKillican and Mobley General Store - continued
The general store was an effective social center for the community and at the close of a day’s labor in the mines; the workers would congregate around the stove and exchange tidbits of gossip and chaws of tobacco. If they were not subscribers to the temperance movement, they would adjourn to the basement. In the basement were two large barrels with whiskey glasses. The miners would serve themselves to the free beverage that the storekeeper generously provided. The ladies would meet at the post office inside the front door and exchange further tidbits of gossip.

The high doors and ceilings were so designed to aid in ventilating the building during the warmer summer months. The door handles are low according to today’s standards, but perhaps this was the standard height in the mining days.

Aside from the owners, there were normally five additional employees: a teamster who drove four, six and eight-horse teams in delivering freight from Nevada City; a driver for local delivery who drove a two or four-horse wagon; a full time mail clerk; a stock boy who swept, cleaned, and worked in the post office. Historians claim the arrival of the daily stage was one of the more exciting moments of the day for residents of North Bloomfield. Men and women would gather at stage time and wait until the mail was distributed and talk about the news of the day. The post office was also responsible for selling fishing and hunting licenses to the sportsmen in the area.

There was a marked decline in business following the Sawyer Decision of 1884, but the store continued serving the region throughout the 19th and the first few decades of the 20th century. The store officially closed in November of 1941, with Noni Landsburg serving as the last postmaster.
Historical Buildings in North Bloomfield

North Bloomfield School
The first school in North Bloomfield was built in 1857 and was found closer to the picnic area in town. The school standing today was most likely constructed in 1873 at a cost to the townspeople of $3,700.00, complete with furnishings and its own library. Classes were held for kindergarten through eighth grades during the 1880s to accommodate expanded enrollment. As many as 144 students took lessons from two teachers in the L-shaped, two-roomed schoolhouse the first year the school was opened. F.D. McAlister served as the principal and teacher and received a salary of $90.00 per month. His assistant, Mrs. McDonald received $50.00 per month.

The school served as a church and Sunday school on weekends. Catholic, Episcopalian and Methodist religious services were conducted here. The school also served the community as a town meeting hall before Cummins Hall was constructed.

Directly behind the building one will find a depression in the earth, which was a pond that the school kids swam in, much to the dislike of the principal. The pond was part of the LeDue hydraulic mine.

The park visitor will notice the numerous blackboards in the main part of the building. Blackboards were used as the primary teaching aid since paper products were so scarce during the gold rush era. The children used slate boards and chalk to do homework. The bench at the front of the classroom was used to seat children who were being disciplined, and the two small rooms at the entrance are cloakrooms. The large hooks on the ceiling in the main room were used to support the stovepipe so that the building could be heated during the colder months. An unusual feature of the school is a ventilator in the center of the ceiling that can be manipulated from the teacher’s desk. The schoolroom was lighted by kerosene lamps. The schoolmarm and master both lived near the school, in separate cottages, perhaps near or on the sites of the Gin Yet Wah and Skidmore cabins. Separate “four-holer” pit toilets, for boys and girls, may be found behind the school. A short bell tower and a cupola are located on the ridge of the roof near the front of the structure. The school was last used in 1941 and has been owned and maintained by the Department of Parks and Recreation since 1973. The Washington School District still retains provisional use of the building if emergency circumstances warrant doing so.

This building is not one of the Scavenger Hunt buildings and is currently boarded-up. School groups cannot enter the schoolhouse but mock classes could be held in the schoolyard using the slate boards and chalk supplied by the park.
**Historical Buildings in North Bloomfield**

**Ostrom Stables**  
Owned by Jay Ostrom, this original building was established around the early 1860’s and was one of two stables operating in the town of North Bloomfield.

Students will see original wagons stored in the stable representing the different types of transportation during the 1800s and early 1900s. We also have a replica of a “Hay Press” or “Hay Bailer” from the mid-1800s. This was our country’s first hay bailer, giving the farmers more room to store hay for their livestock.

Today this stable is one of the buildings students enter on their Scavenger Hunt. Two games are played at this station to give the students the opportunity to work as a team.
Historical Buildings in North Bloomfield

Saint Columciles Catholic Church
St. Columciles Catholic Church is not native to the town of North Bloomfield. But it was constructed in 1860 and is considered a valuable addition to the Malakoff Diggins State Historic Park. The church was originally situated 15 miles east of North Bloomfield in the town of Birchville and served as a Union Guard Hall where Civil War recruits were trained. Soon thereafter the hall was converted into the Catholic Church, as we know it today.

St. Columciles was a disciple of St. Patrick who founded a monastery on an island off the coast of Scotland. He was sent to Scotland from Ireland to Christianize the Druids. St. Columcile died and was buried on the Isle of Iona.

The church last held services in the 1950s and was abandoned shortly thereafter. The church was destined to be destroyed until Mr. Bart “Babe” Pinaglia, bought the chapel and donated it to the State of California in 1969. Mr. Pinaglia was a North San Juan businessman who died at the age of 57 and was known affectionately as “Mayor,” “Santa,” and “Mr. San Juan.” He annually held Christmas parties for children in North San Juan. Upon purchase, the structure was beginning to show signs of aging; however the original altar, communion rail, confessional and pews were still in place and in satisfactory condition.

The church was moved to its present site in 1971. It took about two years for state employees to dismantle the old wood frame building and its steeple and rebuild it at the park. The original Catholic Church was almost identical. The original building had one more window on each side of the building and a small window located behind the alter.

This building is not one of the Scavenger Hunt buildings or open to school groups.
Historical Buildings in North Bloomfield

Skidmore House

The Skidmore house was built circa 1862 by Rush Dix Skidmore. “Skid” was born in Versailles, New York, November 23, 1832. In 1854, Skid moved to Nevada City and eventually made his way to North Bloomfield in 1857. In 1857 he took over a bakery business and continued this enterprise until injury to one of his hands, while operating baking equipment, forced his retirement from this trade. In 1860, he operated a saloon in a two story building on the southeast corner of Mill and Main Street. He purchased that property in 1868. The building burned in the fire of 1876, after which he rebuilt with his saloon business downstairs and a meeting hall upstairs.

On November 1, 1861, Rush Dix Skidmore married Elizabeth Plitch, a native of Germany, in North Bloomfield. Together they had five children, three daughters and two sons. Mr. Skidmore was said to have been one of the wealthier citizens in town. Aside from the saloon trade he charged fees for service as a notary public and was an agent for the Eureka and California Stage Lines. Skid ran a stable for the California State Line and later financed his son, Grant, in the operation of this stable. The stable was located across from his saloon and was previously listed as belonging to estate of J. P. Sims. Skid also had an active interest in mining, and was knows to profit from buying and selling claims. He was a mining recorder and was quite a philanthropist in that he oftentimes grubstaked miners less fortunate than he.

Isabel Heffelfinger, a resident of North Bloomfield in the early 1900s stated that the Skidmore girls were said to be the best-dressed girls in the area. “The girls were the apple of R.D. Skidmore’s eye” and no expense was spared in their attire or education.

Rush Dix Skidmore was always dressed up, always wore a suit and tie, very neat. He was also said to be quite a history buff. Mr. Skidmore died at his home on August 2, 1911. The house was passed down to Mary his daughter, and her husband William Kallenberger, then to their son, Wendell, after Mary’s death in 1950. Many families have lived in this house.

The state obtained this building from the Kallenberger family.

As you enter the house from the front, the sitting room/office is through the first doorway to your left. This is where the merchant would have conducted his mining transactions and other business matters. The room on you right is the parlor, used to entertain guests. As you walk down the hallway, the bedroom on the left is the Master Bedroom, while the one on the right is the child’s bedroom, a daughter. At the end of the hall is the kitchen.

The Skidmore House is one of the buildings included on the Scavenger Hunt.
Historical Buildings in North Bloomfield

Smith-Knotwell Drug Store
Adrian A. Smith purchased the corner lot on Relief Hill and North Bloomfield in 1872. At that time there was a small house on the property. It is possible that Smith was operating a small drug store business from a closed in front porch. In 1876 he remodeled and built the drug store building and operated it as the “Smith Drug Store.”

Smith sold medicine, soaps, perfumes, toys, cigars, fancy plates and dishes, like a modern day Longs Drug Store. The medicine bottles on the right side of the building were usually patented medicines sold over the counter. The large jars on the left side were used by Mr. Smith to mix different compounds to create a specific medicine. Smith would mold the compound into a pill by using the pill-molding machine. (Located in the back office on the table.) The top meeting hall was originally used by the Independent Order of Good Templars and the Knights of Pithias. Sometime between 1880 and 1882 the Masons moved into the upstairs and became Quitman Lodge No. 88, later merging with the Masonic order in Nevada City, Lodge No. 13.

Adrian A. Smith was a native of Pittsburg, Pennsylvania. He became a college graduate in the study of medicine and the teaching profession. He married Maria Hughes and moved to Ohio, where he continued in the study of medicine. In 1856, he moved to California by way of the Panama Canal and settled in Rough and Ready with an uncle, Nathanial Smith, who operated a sawmill. A. A. Smith was a member of the State Assembly during the sessions of 1863-64. In 1869 he was listed as a schoolteacher in North Bloomfield. From 1873 to 1889, A. A. Smith was Justice of the Peace in North Bloomfield. In 1875, A.A. Smith was noted in the North San Juan paper as being a druggist and selling medicine to a traveling musician, who after performing in Cummins Hall one evening later died in North San Juan.

John Knotwell, the co-owner of Knotwell-Atwater Drug Store in Moore’s Flat, was in this area in 1864 an prior to his arrival resided in Valley Forge, Chester County, Pennsylvania. As early as 1876, the North San Juan paper mentions that Knotwell was working with A.A. Smith as a druggist. In the census of 1880, John was shown to be living with A.A. Smith, in Nevada City as a boarder. John Knotwell married Nettie Smith, a daughter of A.A. Smith, in Nevada City on July 20, 1881. Shortly thereafter, the drugstore became known as the Smith-Knotwell Drugstore when A.A. Smith moved from town and left Nettie and John in charge. Nettie became the first woman pharmacist in California. Adrian Smith died in November of 1901 of pneumonia at the age of 66.

From 1900 to 1908 it was known as the North Bloomfield Drug Company. The store manager, J.G. McKinney, also related to Smith and Knotwell, probably occupied the living quarters, as was customary during this period, for security reasons.

The original building was torn down and hauled away. The current building is a reconstruction project completed by the Masonic Lodge, E. Clampus Vitus and the State of California between 1976 and 1984.

The Drug Store is one of the buildings included on the Scavenger Hunt.
Tips for Enhancing Activity Effectiveness

Learning a specific craft should not be an end, but a means by which you show the students what life was like during the 1850s. Besides learning how to make a candle, the students should discover that without electric light, nighttime living had many challenges. Cooking over a fire without modern conveniences or pre-packaged foods can offer them a better appreciation of the modern things we enjoy. By building a small stool with simple tools they can learn that utilitarian objects were often made at home, by the person that was going to use it. Individual skill level determined how fancy the item became or how long it lasted.

The students may come to these insights by themselves, but you can also “prime-the-pump” by discussing these and other questions to guide them to the answers you want them to find.

1. What was your favorite job during the 49er campout? Any why?

2. What was your least favorite job? And why?

3. How would you have earned a living during the gold rush?

4. Who do you think would have made the most money?

5. Who would have made the least amount of money?

6. During the gold rush, there were jobs for the men, the women, and the children. Make a list of jobs that needed to be done and put them in the three categories. How have things changed?

7. In a mining camp, who made the rules? Make a list of rules that you think would keep everyone happy. How would you enforce the rules?

8. Going back in time from the present to the 1800s, what did you miss the most? What do you think you could live without today?
Gold Rush Vocabulary

Amalgam - An alloy of gold and silver and/or other metals that are mixed with mercury.

Assayer - A person that evaluated the mineral content of ore by chemical analysis.

Bar – A bank of sand or gravel that extends into a river.

Bonanza – A rich body of ore, below or above ground level.

Bullion – melted gold made into bricks or bars.

Claim – A piece of land legally held for mining, the location of which is officially recorded and marked by monuments.

Claim Jumping – Taking over a claim staked out by someone else.

Cradle – Another name for a rocker box.

Cleaning-up – The separation of gold from the debris in the bottom of the sluice box.

Dredge – A large raft or barge on which are mounted either a chain of buckets or suction pumps or other appliance, to bring up and wash river deposits and gravel for gold.

Dust – Minute particles of gold taken by placer mining.

Flume – Wooden aqueduct for diverting river water or carrying water long distances.

Gulch – A deep narrow valley or ravine.

Hydraulicking – Process by which a bank of gold-bearing earth and rock is excavated by a jet of water shot out of a hydraulic monitor (water cannon).

Lode – A large vein of ore-bearing rock.

Long Tom – A long sluice box.

Monitor – A metal high-pressure water nozzle mounted on a swivel and used for hydraulic mining.

Mother Lode – A mile wide belt of gold producing country, 120 miles long along the Sierra foothills.

Nugget – A lump of gold.

Pan – A shallow metal dish for washing gold-bearing earth.
Gold Rush Vocabulary - Continued:

**Placer** – A place where gold is obtained by washing.

**Poke** – Gold pouch full of gold.

**Pocket** – A small amount of gold-bearing gravel in one place.

**Quartz** – A whitish Mineral that sometimes contains gold.

**Quicksilver** – Mercury, used to separate gold by making an amalgam.

**Riffle** – The lining in the bottom of a sluice made of wood or stones used to trap gold-bearing material.

**Rocker Box** – A short sluice box made to rock back and forth while loose material and water is added to help separate out the gold.

**Run** – The period of operating a sluice box between cleanups.

**Sluice Box** – A long narrow box with raised portions on the bottom to catch gold as loose material is washed down the box with running water.

**Strike** – A new-found concentration of gold.

**Tailings** – The leftover material after washing gold from ground ore, i.e. gravel.

**Vein** – A zone or belt of rock clearly separate from surrounding rock.
Colorful Vocabulary

Here is a list of terms and phrases that you might have heard if you were living in the 1850s. The students might like to write a story or skit using as many terms as possible. They could read the story during your overnight stay.

“A blowhard” (a braggart)

“Ain’t, hain’t” (I’m not/are not)

“Bar keep” (bartender)

“By the great horned spoon!” (Well I’ll be, wow!)

“Chinee” (Chinese man)

“Disremember” (to forget)

“Down yonder, over yonder” (over there)

“Fallacious” (false, deceptive)

“Flatulent balderdash!” (unbelievable!)

“Fortnight” (two weeks)

“Frisco” (San Francisco)

“Gag” (joke)

“Hells bells! Tar nation, By dang!” (wow!)

“Hereabouts” (around here)

“He’s an old wa haws” (he is an old war horse)

“High-fallutin” (above all)

“Honeyfogle” (cheat)

“Horse manure, Hogwash, Bull!” (No way!)

“How passed the night?” (Good morning)

“I have a concern thereto…” (I worry about…)

“I reckon, I allow as how” (I guess)
Colorful Vocabulary – Continued:

“Indeed”  (totally!)

“Josh, kid”  (to joke)

“Let’s plump him up a bit”  (slap him around)

“Rally ‘round”  (gather around)

“Sir/Madam”  (*Mr./Mrs.*)

“Stand aside sir!”  (Get out of the way)

“Swap lies”  (tell stories)

“There’s not as that man has said that isn’t true!”  (He tells the truth)

“Spirits, rot gut, red eye, coffin varnish, eye opener, night cap”  (alcohol)

“The blues, the jimjams, the shakes”  (alcohol overdose)

“Trundle along”  (roll along slowly)

“Vixen, Hussey”  (bad woman)

“Wet my whistle”  (get a drink)

“Whilst”  (while)

“Yon-house, man, bridge”  (that house, etc.)
Costume Ideas

Costumes make the campout an “Environmental Living” program. We want the kids to be participating as much as possible in the gold rush era. When you look at an old picture you can see what the people were like. You can only know what life was like by being in their clothes. Period clothing can teach, by immediate feelings, many things such as historic customs and lifestyles. Students as well as adults should develop and wear costumes during the park visit. We believe that this is an important part of the ELP.

Although some groups have come prepared with costumes including theatrical make-up, it is not necessary to go to such lengths. You may follow simple guidelines and come up with a costume from items found at garage sales, thrift stores, friends or relatives. Parents may be skilled at sewing simple patterns from companies such as McCall’s, Simplicity, or Folkwear; check the internet for ideas too. You might consider having a dress up day in class before your visit so the kids can show off their costumes.

Here are some simple guidelines when putting together a costume:

1. The basic outfit - Wool, cotton, silk, linen, muslin, corduroy, canvas, buckskin; no zippers or elastic; avoid florescent colors or wild prints.
   
   Women – full skirts (almost floor length); dropped shoulder seams; fitted sleeves; petticoats (cotton, flannel or lightweight wool with drawstring waist); apron (lightweight wool or cotton dish towel with waistband, curtain with casing); closure by hook and eye, button, drawstring lacing, or ribbon ties.

   Men – loose fitting shirt; pants with no back pockets or belt loops and button fly’s; wide belt or suspenders; vest, scarves, or bandannas.

2. Headwear – This is an important part of your wardrobe.

   Women – bonnets, mop cap or low crowned straw hat.

   Men – dark colored felt hat, fur cap, straw hat, and bandanna.

3. Footwear – Tennis shoes are not period.

   Women and men – moccasins or boots (low heeled, square toes, skating shoes with blades taken off.)

   Outerwear –Sweatshirts; nylon jackets are not period.

   Women and men – coats, ponchos, mittens, muffs, capes with loose sleeves or slits for arms (old blanket, corduroy, velveteen, wool), shawls.

To prepare for cold or wet weather, you may bring several pairs of wool socks to keep feet dry; thermal underwear or tights; nylon ponchos or jackets to fend off rain. You may not be in costume your whole visit so bring camping clothes and extra shoes if you plan to do the drain tunnel hike.
Costume Ideas

Immigrant Woman in Best Clothes

Immigrant Woman in Travel Clothes

Immigrant Woman in Work Clothes
PROGRAM ACTIVITIES

The following is a list of the various activities that are available to teachers. We supply many of the supplies and materials that the children will need but you might need to bring some additional materials to complete the activity. These activities are designed to be handled in stations with “mining groups” of four to six students, rotating between stations. One or two parents should be assigned to each specific station.

<table>
<thead>
<tr>
<th>Event</th>
<th>We Provide</th>
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</thead>
<tbody>
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<td>Candle Dipping</td>
<td>Wax Dipping Sticks, and Wick</td>
<td>Supervision</td>
</tr>
<tr>
<td>Cloth Dolls</td>
<td>Cloth and Twine</td>
<td>Supervision</td>
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<tr>
<td>Cooking</td>
<td>All necessary cooking and dish washing supplies.</td>
<td>Dish-Washing Supplies</td>
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<td></td>
<td></td>
<td>You may wish to bring additional towels and scrubbers</td>
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<tr>
<td>Crocheting</td>
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<tr>
<td>Gold Panning</td>
<td>Pans and the Creek</td>
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<tr>
<td>Lucet (Cording)</td>
<td>Lucets, Yarn</td>
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<tr>
<td>Rope Making</td>
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<td>Slate Writing</td>
<td>Slate Boards, Chalk, Rags</td>
<td>Supervision</td>
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<tr>
<td>Tinsmithing/Small Lantern</td>
<td>Hammers, Nails, Pre-cut Wood, Aluminum Sheet</td>
<td>Supervision</td>
</tr>
<tr>
<td></td>
<td>(purchased at park)</td>
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<tr>
<td></td>
<td>Wood Base, Wire for handle</td>
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<tr>
<td>Tinsmithing/Large Lantern</td>
<td>Hammers, Punching Nails, Pre-cut Aluminum Sheet</td>
<td>Pre-cut Wood, Plexiglas, Wire for hanging lantern</td>
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<tr>
<td></td>
<td>(purchased at park)</td>
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<tr>
<td>Tug-o-War Rope</td>
<td>30’ Nylon Rope</td>
<td>Supervision</td>
</tr>
<tr>
<td>Wood Working</td>
<td>Hammers, Nails, Wood Glue, Sand Paper</td>
<td>Pre-cut Wood</td>
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</tbody>
</table>
Program Activities – Continued:

Here are additional resources that you may choose to enjoy during your visit.

**Blacksmithing**
Our blacksmith, Rick Morehouse, is highly skilled in the art of blacksmithing. He will set up in the old blacksmith shop in North Bloomfield, across the street from the ELP campsite, and give demonstrations to the students while helping each of them to make a simple project of their own. He is very careful and patient with the youngsters. This Blacksmithing event could be run as a station or as a separate demonstration to the group. You contract and pay separately with Rick. He can be reached at (530) 478-7597.

**Story Teller**
Evening performances are given by Rick Toles. Rick comes dressed as “Alkali – Last of the 49ers” and plays many types of historical musical instruments to accompany his story telling. He shares the instrument’s histories and is a talented performer. He also teaches a simple square dance to the kids. His spring schedule fills up quickly! You contract and pay separately with Rick. He can be reached at (530) 477-5560 or visit [http://www.oldalkali.com](http://www.oldalkali.com).

**North Bloomfield Scavenger Hunt**
This activity lasts one and one-half to two hours and leads the students in small groups through six of the historic buildings in North Bloomfield. This activity is described in detail later in the manual.

**Hydraulic Mining Video**
This video describes the history of hydraulic gold mining here in North Bloomfield and the greater region. It is twenty minutes long and shows in the park museum. Many schools have all the children see the video first before they start the scavenger hunt. It is also available for purchase through our park association’s sales center.

**Mining Tunnel/Nature Walk**
A hike along part of all of the 2.7 mile long Diggins Loop Trail is and educational and fun addition to your curriculum while on site. If we have not had much rainfall recently, it is possible to walk through a 556’ long drain tunnel into the “Diggins.” This is a favorite with the kids. You will need flashlights for this adventure!
Cooking

Cooking has been an important talent throughout history. During the Gold Rush a good cook was definitely appreciated. At this station the student should discover the complexity of cooking without the modern conveniences of pre-packaged food, running water, gas stove, or electric appliances. The students should be made responsible for such of the preparation as possible. Today, most nine year olds probably take for granted a ready, adult prepared meal. At some environmental living programs the students are asked to cook without any supervision and a lesson is learned when they have to eat what they have cooked or go to bed hungry. Somewhere in between these two situations is what we would like to see.

1. Two to three adults should be at this station. It is important to have one person in charge of the fires and to keep a hot bed of coals for Dutch oven cooking. One person should supervise the preparation of the food. The students will help with both of these activities plus haul water and do restroom cleanup/checks periodically throughout the day.

2. To prepare for this station, choose a menu that reflects the type of food of the period. Past groups have made dinners out of beef, chicken or vegetable stews; with dumplings, cornbread or biscuits. One group brought a spit and roasted chickens. Others have made beans and tortillas. For breakfast you might consider oatmeal or pancakes with bacon or sausage. An authentic lunch might be cheese with bread, fresh or dried fruit, and maybe some jerky. In the old days, the beverage might be water, coffee or tea. A sample menu and a few recipes have been included to give you some ideas. These recipes have been taken from a camping cookbook and are using short cuts that should be avoided if you are trying for authenticity.

3. Try to cook from scratch as much as possible and to keep down the level of packaging materials that turn into garbage. (This in itself might become a valuable lesson to let the students discover.) Food items should be stored in the shed to protect from animals. Keep plastic and paper products out of sight as much as possible. Bring a supply of cloth towels and plain potholders that may be washed and reused during your stay. Keep ice chests in ELP shed and out of view.

4. Dishwashing and tidiness are important to preserve a healthy eating area. Dishes should be first scraped clean of food particles, washed in hot soapy water, rinsed in warm water and then dipped into a weak solution of bleach (¼ cup to a large tub of water). The dishes should then be allowed to drip dry. Some groups have made cloth bags that will hold the plates and silverware for the whole mining group. The dishes are then hung up to dry on a line in their bag. Leather thongs may be used to tie cups onto a belt so that each person keeps track of their cup throughout the trip. The dishwater is then poured through a strainer to remove food particles and into the French drain. Wet garbage should be placed into garbage bags but in small enough quantities to be easily handled.

**ELP Supplies provided:**

- Dutch ovens, various pots, pans and bowls
- Cooking utensils
- Cups and plates
- Cleaning supplies
- Garbage bags
Suggested Camp Menu

**DAY 1**

**LUNCH:**  EACH PERSON TO BRING THEIR OWN LUNCH.

**DINNER:**
- STEW
- BISCUITS
- TEA
- COFFEE

**DAY 2**

**BREAKFAST:**
- OATMEAL WITH WHITE SUGAR, BROWN SUGAR OR MAPLE SYRUP AND MILK
- FRUIT
- TEA
- COFFEE
- MILK

**LUNCH:**
- BOSTON BAKED BEANS
- CORN BREAD
- FRUIT
- TEA
- COFFEE

**DINNER:**
- CHICKEN AND DUMPLINGS
- BISCUITS
- APPLE CRISP
- TEA
- COFFEE

**DAY 3**

**BREAKFAST**
- SCRAMBLED EGGS
- HAM
- BACON
- BISCUITS (LEFTOVERS)
- FRUIT
- TEA
- COFFEE
- MILK

**LUNCH:**
- HOT DOGS WITH BUNS
- LEFT OVER STEW, BEANS, ETC.
- FRUIT
- LEMONADE
Dutch Oven Cooking

Nowadays, cooking over an open fire usually means grilling or barbecuing. But an old-time camp cook could bake just about anything by using a Dutch oven. Past ELP cooks have used our ovens to make biscuits, cobblers, cinnamon rolls, corn bread, and even apple pies. The trick to using these cast iron pots is getting a feel for how much heat to apply and keeping an adventuresome outlook. In most modern guides to Dutch oven cooking they describe using charcoal briquettes underneath (10-12) and on the lid (8-10) to heat the oven. Groups could use coals from the fire for authenticity. It will take a little time to get used to how much heat is needed. Remember, this is the opposite of a convection oven: the heat goes where you put it. Coals on the top will brown the top. Coals on the bottom will cook the bottom. You will want balanced heat. By starting out slowly and making frequent checks the person in charge will learn quickly what is necessary. If your camp cook is new to Dutch oven cooking, here is a list of ideas that should help.

1. Make sure the oven is clean and seasoned (see #9) before use.

2. Pre-heat the oven so that most of the cooking comes from the resident heat.

3. Make sure plenty of coals are available in the fire.

4. If oven is placed near the main fire, you will have uneven heat.

5. Leave an air space between the oven and bed of coals so the baked goods will not burn on the bottom as easily.

6. If baking in a pan, raise the pan above the bottom of the oven on a rack or with a few rocks.

7. When checking on cooking progress, make sure to remove all coals from the lid and to sweep ashes away. Do not lay the lid down on something that is dirty.

8. If baking a sticky desert, you might want to line the oven with tin foil before adding dough. (Not historical but definitely more convenient).

9. After using the oven, season the cast iron by washing in hot water (no soap.) Dry oven over the fire and then coat the inside with a thin film of cooking oil or shortening. Make sure that it is ready for the next group.

ELP Supplies provided:  
- Various sizes of Dutch ovens
- Cooking Tripod
- Cooking Pots
- Charcoal
- Lighter Fluid
- Seasoning for pans

School Supplies the Following:  
- Food
Suggested Camp Recipes

Baked Beans

Utensils Needed:

Dutch oven
2-quart kettle
Measuring spoons
Measuring cup
Hot tongs
Spoon for stirring
Paring knife

Ingredients Needed for 8 People

Dried beans................. 1 pound
Brown sugar ................ ¾ cup
Salt............................ 1 tsp.
Bacon.......................... ¼ pound
Onion............................ 1 medium

Instructions for Preparing:

1. Put beans in 2-quart kettle, cover beans with water, and bring water to a boil. Then simmer until beans are soft.

2. Drain water from beans.

3. Place beans in Dutch oven.

4. Add ¾ cup of brown sugar and 1 teaspoon of salt. Stir these in with the beans.

5. Remove outer layer and ends from onion, cut in thin slices and place on top of beans.

6. Cut bacon slices into 3 or 4 pieces and spread these out over the onion slices.

7. Add just enough water to cover the beans.

8. Put Dutch oven over some hot coals.

9. As soon as the water starts to simmer, remove some coals from under the Dutch oven. Have just enough coals under the Dutch oven to that the water will continue to simmer. Add coals as needed.

10. Add water as needed.

11. During the last hour, you will probably not want to add any more water unless the beans are extremely dry. You might want to add a few coals to the lid to brown the beans slightly.
Suggested Camp Recipes

Dutch Oven Baked Beans – continued:

*Time Required:*

It is a good idea to soak the beans overnight if this is at all possible. If you do this, it will take less time to soften them in the morning.

Regardless, this dish should be started as soon as possible in the morning, since cooking at low heat for a long period of time is important.

*Suggestions:*

Various types of beans can be used. Try navy beans.

Add 1 teaspoon of dried mustard, if available, to beans in Step #4.

Beans can also be cooked in a pan set on a rack in the Dutch oven.
Suggested Camp Recipes

**Beef Stew**

**Utensils Needed:**
- Dutch oven
- Frying Pan
- 2-quart Kettle
- Bag or Small Bowl
- Measuring Cup
- Measuring Spoons
- Spatula
- Paring Knife (2 if available)
- Pan for Washing Vegetables
- Large Spoon

**Ingredients Needed for 8 People**
- Stewing beef, 2-2 ½ pounds, cut in 2-inch cubes
- Shortening
- Flour ......................... ½ cup
- Salt ............................ ½ tsp.
- Pepper ....................... ¼ tsp.
- Onions ...................... 8 small
- Carrots ...................... 8 medium
- Potatoes .................... 8 medium

**Instructions for Preparing:**

1. Put about 3 tablespoons of shortening in frying pan and put over coals to heat.
2. Put 2-quart kettle, half filled with water, on coals to heat.
3. Mix ½ tsp. salt, and ¼ tsp. pepper together in a bag or small bowl.
4. Rub meat in flour mixture, doing a few pieces at a time.
5. When frying pan is hot, start to brown meat. Do not overload pan. Browning will take place only when meat surface is in contact with the bottom of the pan. Add more shortening as needed. Brown all sides thoroughly. As pieces are browned, remove them and place in Dutch oven. Do not pierce meat as you turn or take pieces out. You want juices sealed in.
6. Remove ends and outer layer from one onion. Dice into small pieces about ¼ inch square. Brown in frying pan and then put in Dutch oven. This can be done with the meat.
7. When last meat and onions have been roved from frying pan, put about 2 cups of hot water in frying pan and bring to boil. Scraps bottom of pan with spatula and then pour contents over meat.
8. Add additional hot water to cover meat and put lid on. Place Dutch oven over coals. Cook over low heat for at least 1-½ hours. It should be simmering at all times. Check every 20 to 30 minutes. Adjust heat if necessary. Add hot water as needed.
9. One hour before you expect to eat:
   a. Peel potatoes; wash in cold water; cut in 1-inch cubes.
   b. Remove ends and outer layers of onions; cut into fourths.
   c. Scrape carrots; remove ends; wash and cut in ½ inch slices.
   d. Put all vegetables into Dutch oven, add water to cover vegetables and put on lid.
Suggested Camp Recipes

Beef Stew – continued:

10. Simmer until vegetables are tender, stirring occasionally to make sure stew is not sticking to bottom.

Time Required:

Allow at least 2 hours; three hours is better. In camp, start meat at noon and let it simmer all afternoon, checking it occasionally,

Suggestions:

Try dumplings with your stew.

Many times a chuck roast that you cut into 1-½ inch pieces is a much better buy than beef stew meat.

Try lamb or veal using the same general instructions.

Serve with a salad and finish with dessert.
Suggested Camp Recipes

Chicken Casserole with Dumplings

Utensils Needed:
- Dutch oven, 4-quart kettle
- Can opener
- Spoons (2)
- Mixing bowl
- Measuring cup

Ingredients Needed for 8 People
- Canned chicken ............. 4 5-oz. cans
- Mixed vegetables .......... 2 16-oz. cans
- Chicken soup .............. 1 can
- Biscuit mix ................. 2 cups
- Milk (or liquid) ............ ¾ cup

Instructions for Preparing:

1. Open cans of vegetables, drain liquid into a cup and save, and put vegetables in kettle.
2. Open can of chicken soup and dump contents into kettle.
3. Open cans of chicken and place contents in kettle.
4. Place kettle over bed of coals and stir occasionally.
5. When small bubbles start to break out in the liquid in the kettle, prepare dumpling dough according to recipe.
6. When large bubbles break out, start to put dumpling dough on top of chicken mixture in kettle, according to recipe instructions. DO NOT put any dough in kettle until there are large bubbles.

Time Required:

This will take at least 35 to 45 minutes.

Suggestions:

Use the liquid from the vegetables instead of milk in making the dumplings.

A small can of cut-up mushrooms can be added to the chicken mixture.

If you can afford it, use an extra can or two of chicken and an additional can of mixed vegetables.
## Suggested Camp Recipes

### Cornbread

<table>
<thead>
<tr>
<th>Utensils Needed:</th>
<th>Ingredients Needed for 6 People</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dutch oven</td>
<td>Cornmeal .................................. 3 cups</td>
</tr>
<tr>
<td>Mixing bowl</td>
<td>Butter .................................... 1 tsp.</td>
</tr>
<tr>
<td>Measuring cup &amp; spoons</td>
<td>Salt ....................................... 1 tsp.</td>
</tr>
<tr>
<td>Mixing spoon</td>
<td>Water ...................................... 1 cup +</td>
</tr>
</tbody>
</table>

### Instructions for Preparing:

1. Grease Dutch oven well with butter or bacon drippings. Pre-heat with coals on top and bottom.

2. Mix cornmeal and salt in bowl. Pour 1 cup of boiling water and stir. Add more boiling water, ¼ cup at a time, until you have a stiff dough that can be shaped with the hands.

3. Divide the dough, shape it, and press it into the greased Dutch oven. Cover and bake until dough surface is crusty.

### Time Required:

Bake for 30-40 minutes, depending on the coals.

### Suggestions:

Cut loaves in wedges and serve warm with more bacon drippings or molasses.
Suggested Camp Recipes

Dumplings

**Utensils Needed:**
- Dutch oven
- Mixing bowl
- Measuring cup
- Mixing fork
- 2 spoons

**Ingredients Needed for 8 People**
- Biscuit mix ...................... 2 cups
- Milk .............................. ¾ cup

**Instructions for Preparing:**

1. About 20 minutes before you’re ready to take the main dish off the fire and start serving, start to get you utensils and ingredients ready. Check Dutch oven to be sure there is adequate liquid and that the liquid is boiling.

2. Put 2 cups of biscuit mix and ¾ cup of milk in mixing bowl and mix together. Use the fork as a mixer. Do not beat with a fork; only mix or blend the ingredients together.

3. Once it is mixed, you have to work fast. Read this paragraph several times; it is important! Remove lid from Dutch oven. Take a small spoon of dough and drop this on top of the meat or stew. Use the second spoon to push the dough off the first spoon. You do not do anything with the dough after it comes off the soon. Leave it as it is in the Dutch oven. Put all dough on the stew in this manner, taking care not to drop the spoonful of dough on top of each other. Do it as fast as you can; you do not want the Dutch oven to cool down any more than is necessary. **Work fast!**

4. Put lid on Dutch oven with 6 or 7 briquettes on the lid. Maintain a heat that will allow the liquid to simmer.

5. In 6 minutes, check. At this time, the dough should have a slight crusting. If there is no crusting, fire is too low. If dumplings are browned, fire is too hot. Adjust number of coals on lid as needed.

6. In another 4 minutes, remove lid and cook for an additional 10 minutes without the lid. Maintain a simmer. At the end of this period, check to see if done. Push a straw or clean wood splinter part way into the dumplings and take out. If it comes out dry or with dry crumbs, dumplings are done.

**Time Required:**

This does not take additional time! Only the last 20 minutes of cooking time for the main dish is used for making the dumplings.

**Suggestions:**

Dumplings can be used on many different dishes. They are relatively easy to make, and they usually turn out great, regardless of how inexperienced your cooks are.

Sometime try adding about 2 tablespoons of grated cheese to the biscuit mix.
Suggested Camp Recipes

**Hot Biscuits**

**Utensils Needed:**
- Dutch oven
- Mixing bowl
- Measuring cup & spoons
- Mixing spoon

**Ingredients Needed for 8 People**
- Flour .................................................. 2 cups
- Baking soda ........................................... ½ tsp.
- Butter .................................................. 2 tbsps.

**Instructions for Preparing:**

1. Mix dry ingredients and blend with lard until well mixed.
2. Add milk (or water) slowly to make soft dough.
3. Using a teaspoon, drop soft dough into greased Dutch oven. Flatten biscuits.

**Time Required:**

Bake for 20-30 minutes, depending on the coals.

**Suggestions:**

Serve with gravy and/or leftover meat.
Suggested Camp Recipes

Stewed Chicken

Utensils Needed:
- Dutch oven, 4-quart kettle, with lid
- Sharp knife
- Measuring spoons
- Measuring cup

Ingredients Needed for 8 People
- Stewing chicken ............ 5 lbs more
- Salt............................ ½ tsp.
- Pepper.......................... ⅛ tsp.
- Flour ......................... ⅓ cup

Instructions for Preparing:

1. Put kettle, about ½ filled with water, over coals. Bring to a boil.

2. Remove giblets. Wash chicken and then cut into pieces. Remove any large pieces of fat.

3. Put chicken in kettle of boiling water. Add ½ tsp salt and ⅛ tsp of pepper to water. Cover kettle. If necessary, you can use aluminum foil as your lid.

4. Keep kettle over coals and allow chicken to simmer about 2 hours. Check every 30 minutes to make certain water is simmering. If it is not simmering add more coals. If water is boiling hard, remove some coals. Keep chicken covered with water.

5. Thirty minutes before you are ready to serve, form a smooth paste by gradually stirring a cup of cold water into about ½ cup of flour. Pour this paste in the kettle to form gravy. Add enough water to cover chicken.

6. Chicken is done when it is easily pierced by a fork.

Time Required:

This will take 2 ½ hours to prepare.

Suggestions:

Dumplings are excellent with this. They are easy to make. Start making dumplings about 20 minutes before the chicken is ready to serve.

Serve on rice.
Suggested Camp Recipes

Cinnamon Rolls

**Utensils Needed:**
- Dutch oven with rack
- Cake pan or pie pan
- Measuring cup
- Mixing bowl
- Stirring fork or spoon
- Measuring spoon
- Roller (smooth bottle or can)
- Wax paper

**Ingredients Needed for 8 People**
- Shortening
- Biscuit mix ............... 2 cups
- Milk .......................... 2/3 cup
- Flour
- Brown sugar ............... 3 tbsp.
- Cinnamon .................. 1 tbsp.
- Butter ...................... 2 tbsps.
- Nuts or raisins

**Instructions for Preparing:**

1. Set Dutch oven over hot coals, with some hot coals on lid.
2. Grease cake or pie pan. Take a piece of paper towel and form it into a pad about 2 inches by 3 inches. Use this to grease the pan so you can keep your hands clean.
3. Put 2 cups of biscuit mix and 2/3 cup of milk in mixing bowl and stir with a fork.
4. Cut piece of wax paper 12 inches by 18 inches. Place on rolling surface and sprinkle lightly with flour to cover surface.
5. Place dough on wax paper and roll dough into a rectangle about 8 inches by 14 inches.
6. Now spread 3 tablespoons of brown sugar evenly on the dough, then sprinkle 1 tablespoon of cinnamon over this, and add nuts or raisins if you have them.
7. Take about 2 tablespoons of butter and put small bits all over the sugar and cinnamon.
8. Now roll up the dough lengthwise into a long roll (like a jelly roll). Use the wax paper to lift dough and help roll.
9. Cut the roll into ½ or ¼ inch slices.
10. Place slices in greased pan, with one cut edge on bottom.
11. Put pan in Dutch oven. Do this quickly so as not to lose too much heat from the Dutch oven when the lid is off. This requires a high heat - 425°.
Suggested Camp Recipes

Cinnamon Rolls – continued:

12. Check in 5 minutes. If a slight crust has not started to form, add some coals to the lid of the oven and possibly some below the oven. If the biscuits have started to brown, reduce the heat by removing some of the coals. Recheck in another 5 minutes. With proper heat, they should be finished in about a total of 15 to 20 minutes.

Time Required:

This will require 25 to 30 minutes to complete. Rolls can be served hot.

Suggestions:

If you don’t have brown sugar, use white sugar. If you don’t have cinnamon, use nutmeg. If you have raisins, add about ½ cup to the dough. And if you have nuts, add about ½ cup chopped nuts too.
Suggested Camp Recipes

Sweet Rolls

Utensils Needed:
- Dutch oven with rack
- Large frying pan
- Measuring cup
- Large spoon

Ingredients Needed for 8 People
- Brown sugar ........................................ 1/3 cup (packed)
- Butter ............................................. ¼ cup
- Canned biscuits ....................... 1 10-biscuit can

Instructions for Preparing:

1. Put Dutch oven over some coals and place additional coals on lid.

2. Put 1/3-cup brown sugar and ¼ cup butter in large frying pan and place over some coals. As these melt, mix together with a spoon.

3. When melted, put pan on a surface where you can work. Open the canned biscuits and cut each biscuit in half. Put biscuit pieces in frying pan on the syrup mixture. (These will need to be put close together.)

4. Place pan in Dutch oven n rack. Put lid on Dutch oven. Have about 8 to 12 briquettes under the oven and about 10 on the lid.

5. Check in 3 minutes. A slight crust should be starting to appear. Adjust heat if necessary. In another 4 or 5 minutes, there should be a slight browning. They should be done in about 10 minutes. To determine whether done, push a clean wood sliver into the dough. It is comes out dry, the biscuits are done.

6. When done, take out of oven; put a piece of aluminum foil over pan, and then place a plate upside down on aluminum foil. Now flip the entire thing over, away from you. Put on table and remove frying pan after a few seconds to allow topping to drip on biscuits.

Time Required:
These should take 15 to 20 minutes.

Suggestions:
If available, scatter about ¼ cup of broken nutmeats on top of syrup before placing biscuits in pan.
Instead of using canned biscuits, you can make your own biscuit dough.
Suggested Camp Recipes

Fresh Apple Crisp

**Utensils Needed:**
- Dutch oven
- Measuring cup & spoons
- Paring knife
- Mixing spoon

**Ingredients Needed for 6 People**
- Apples (2 pounds) .......... 6 medium
- Oatmeal (quick cook) ...... ½ cup
- Brown sugar .............. ½ cup
- Flour ........................... ¼ cup
- Cinnamon ........................... ½ tsp.
- Sugar (granulated) ........... 2 tbsp.
- Salt................................. To Taste

**Instructions for Preparing:**

**NOTE:** You will need to double the recipe in order to fill the Dutch oven, but it may not all fit.

1. Combine oats, brown sugar, flour, cinnamon, and dash salt.
2. Cut in butter until mixture resembles coarse crumbs; set aside.
3. Peel, core and slice apples to make 5-6 cups (don’t forget to double).
4. Place fruit in greased Dutch oven. Sprinkle with crumb mixture over all.

**Time Required:**

Bake about 30 to 45 minutes, depending on the coals.

**Suggestions:**

Top with sharp cheddar cheese or ice cream.
Suggested Camp Recipes

Fruit Pies

Utensils Needed:
- Dutch oven with rack
- Mixing bowl
- Measuring cup
- Fork (or spoon) for mixing
- Wax paper
- Roller
- Pie pan
- Knife
- Measuring spoons

Ingredients Needed for 8 People
- Pie crust mix................. 1 package
- Fruit (see “Pie Filling Suggestions” for specific amounts
- Flour
- Sugar
- Cinnamon
- Butter

Instructions for Preparing:

1. Put Dutch oven with rack in it over coals. Have some coals on lid.

2. Mix piecrust according to instructions on package. Use as little water as possible. Form gently into a ball in bowl and cover with wax paper.

3. Prepare your fruit. See attached list.

4. Uncover dough and divide in half

5. Take a piece of wax paper about 14 inches long and lay it on a flat surface. Sprinkle some flour on this.

6. Put half of the dough on wax paper. Sprinkle some flour on top and roll dough flat, slightly larger than your pie pan. If dough sticks to roller, sprinkle more flour on dough.

7. Place pie pan upside down on the dough. Now lift wax paper and with one hand under the wax paper and one had on the pie pan, turn dough and pie pan other side up. Remove wax paper and smooth dough around the pan. Excess dough hanging over the edge can be cut off.

8. Repeat step #6 for the remainder of the dough.


10. Lift wax paper with top crust rolled on it and slide one hand underneath. Quickly turn over on top of the fruit.
**Suggested Camp Recipes**

**Fruit Pies – continued:**

11. Remove wax paper carefully and press the two crusts together around the rim of the pie pan. Tines of the fork are good for this. Cut off excess dough. Cut some slits in the top of the top crust for steam to escape.


13. Check in 10 minutes. There should be little change in the crust.

14. Check in 20 minutes. There should be a slight browning of the crust.

15. Check again in 25 minutes. The pie should be completely baked in 30 to 35 minutes. When done, it will be nicely browned, and the juices in the pie will be bubbling. Test fresh apple pie with a fork through slits in top crust to make sure apples are cooked. Apples should feel soft. When pie is done, remove from oven and cool.

**Time Required:**

These should take 30 to 35 minutes. A pie should be started at least three hours before you expect to serve your meal in order to have time to cool.
Suggested Camp Recipes

Pie Filling Suggestions:

Fruit to use and other ingredients needed for filling:

<table>
<thead>
<tr>
<th>Fruit</th>
<th>Quantity</th>
<th>Sugar</th>
<th>Flour</th>
<th>Cinnamon</th>
<th>Butter</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fresh Apples, Sliced</td>
<td>6 – 7 cups</td>
<td>¾ cup</td>
<td>1 tbs.</td>
<td>1 tsp.*</td>
<td>1 tbsp**</td>
</tr>
<tr>
<td>Blueberries</td>
<td>4 cups</td>
<td>1 cup</td>
<td>5 tbs.</td>
<td>½ tsp.</td>
<td>1 tbsp.</td>
</tr>
<tr>
<td>Blackberries</td>
<td>4 cups</td>
<td>1 cup</td>
<td>5 tbs.</td>
<td>--------</td>
<td>1 tbsp.</td>
</tr>
<tr>
<td>Canned fruits, With juice</td>
<td>4 cups</td>
<td>¾ cups</td>
<td>¼ cup</td>
<td>½ tsp.</td>
<td>1 tbsp.</td>
</tr>
</tbody>
</table>

Canned Pie Filling (Follow instructions on label.)

* tsp. = teaspoon
** tbsp. = tablespoon
Suggested Camp Recipes – Continued:

**Apple Pudding**

**Utensils Needed:**
- Dutch oven with rack
- Can opener
- Pan for pudding
- Measuring cups
- Mixing bowl
- Paring knife
- Fork for mixing

**Ingredients Needed for 8 People**
- Sliced apples .............. 2 20-oz. cans
- Orange ....................... 1 large
- Flour ......................... ¾ cup
- Brown sugar ................ ¾ cup
- Butter (soft) .................. ¼ pound

**Instructions for Preparing:**

1. Put Dutch oven over coals with some coals on lid.
2. Open cans of apples and put in cooking pan.
3. Wash orange. Cut in half and squeeze the juice over apples.
4. Put ¾ cup of flour, ¾ cup brown sugar, and ¼ pound soft butter in mixing bowl. Using a fork, mix these together. This will be like coarse crumbs when properly mixed.
5. Spread this mixture on top of the apples.
6. Place pan on rack in Dutch oven. Have some coals on lid.
7. Cook slowly for about 45 minutes. Once apples get hot - 6 or 8 briquettes under the oven and the same number on the lid will be enough.

**Time Required:**

This will take an hour.

**Suggestions:**

Fresh apples can be used for this recipe too.
Suggested Camp Recipes

Additional Cooking Ideas

Camp Coffee

**Utensils Needed:**
- Pot of some type (preferably one with markings to show quantity of liquid and a pouring spout)
- Measuring Cup
- Measuring Spoon
- Stirring Spoon

**Ingredients Needed for 8 People**

<table>
<thead>
<tr>
<th>To Make</th>
<th>Coffee</th>
<th>Water</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 cup</td>
<td>2 tbsp.</td>
<td>¾ cup</td>
</tr>
<tr>
<td>4 cups</td>
<td>½ cup</td>
<td>3 cups</td>
</tr>
<tr>
<td>8 cups</td>
<td>1 cup</td>
<td>6 cups</td>
</tr>
<tr>
<td>16 cups</td>
<td>2 cups</td>
<td>1-½ quarts</td>
</tr>
</tbody>
</table>

Don’t forget the sugar and cream or milk.

**Instructions for Preparing:**

1. Put the measured quantity of coffee into the pot.
2. Add the required amount of water and stir slightly.
3. Put over fire and bring to a boil.
4. Once it boils vigorously, stir thoroughly, and then remove pot from the fire.
5. Allow the coffee to stand for 5 minutes before serving.
6. Settle the grounds by adding 2 or 3 tablespoons of cold water.

**Suggestions:**

If you have some muslin, you might form this into a bag to hold the coffee. Use string to tie the edges together and to pull it out of the coffee when finished. When you make the bag, allow room for expansion of the coffee grounds.

If you use instant coffee, put a pot of water over fire and bring to a boil. Have each person make his own cup of coffee, according to personal taste.

If you wish to make a pot of instant coffee, determine amounts according to the directions on the jar. Boil the proper amount of water, add instant coffee in the amount directed, stir briefly, cover, and place pot where coffee will stay very hot, but not boil for 5 minutes or so.
Suggested Camp Recipes

Additional Cooking Ideas

Oatmeal

**Utensils Needed:**
- Cooking pot
- Measuring cup
- Mixing spoon

**Ingredients Needed for 8 People**
- Oatmeal ....................... 3 cups
- Water .......................... 6 cups
- Salt ............................. To Taste

**Instructions for Preparing:**

1. Boil water and salt; add oatmeal and stir thoroughly.

**Suggestions:**

Top with fruit, raisins, granola, or brown sugar prior to serving.
Suggested Camp Recipes

Additional Cooking Ideas

Pancakes

Utensils Needed:
- 2 griddles or frying pan
- Mixing bowl
- Measuring cup & spoons
- Large spoon
- Fork
- Spatula (2 if available)

Ingredients Needed for 8 People
- Biscuit mix .................. 4 cups
- Eggs .......................... 4
- Milk ........................... 2 ½ cups
- Shortening

Instructions for Preparing:

1. Put about 1 tablespoon of shortening in one frying pan and about 3 tablespoons in the other, and place over coals to heat.

2. Break 2 eggs into mixing bowl; add 2 cups of biscuit mix, 1 ¼ cups of milk and 2 tablespoons of melted shortening (from frying pan). Mix with fork.

3. Test to see if the pans are hot. Do this by dropping a small amount of batter into pan. If it starts to sizzle immediately, the pan is hot enough.

4. When hot, drop (not drip) one spoonful of batter (and only one spoonful) into pan near one side. You do not have to smooth it out; it will do that by itself. Drop another spoonful near the first, and keep on until the pan is filled. Do not overcrowd. You need room to turn pancakes over. Use both pans.

5. When bubbles have broken out all over the uncooked side, the pancake should be turned over. If you are not sure that it is ready to turn, just lift one edge with your spatula. Bottom should be nicely browned.

6. After the second side has cooked about the same length of time, check one edge to see if done. If it is done, remove from fire and put on plate that is kept near the fire to stay warm. Keep on cooking more pancakes. Keep frying pans well greased.

7. Start serving these when you are cooking the last part of the batch and start making your second batch.
Suggested Camp Recipes

Additional Cooking Ideas

Pancakes – continued:

*Time Required:*

This is one dish in which the time required is directly related to the quality of the finished product. If the cooks have to make only one batch of pancakes, they did a poor job. If two batches are consumed, they did an average job. If more than two batches were prepared, the pancakes must have been excellent. The better they are, the more will be eaten, and the more time will be required to cook them. Mixing batter will take about 5 minutes.

*Suggestions:*

Serve pancakes with syrup or jelly, or other sauce.

You can add various items to the batter - cooked bacon cut into small pieces, blueberries, chopped ham, chopped nut meats, etc.

Biscuit mix is suggested since it is likely to be included in the camp kitchen. You can also use prepared pancake mixes.
ELP Activity

Gold Panning

This activity can be done all together by the class as a whole or if the class is quite large you may split the class size into two (2) groups and rotate with another project...

Gold pans are located in the ELP shed. Please take inventory of how many pans will be used for this activity before you leave and again upon returning. It is easy to leave one or two behind when the kids are tired and better to find out now then upon checkout. We allow panning in the Humbug creek in a 1/2-mile section on Humbug Creek. The best place for panning is a short walk down North Bloomfield Road; through the pole gate at China Gardens; walk right, parallel to the road to the end of the gardens area; and then along a footpath to the creek. We do not allow any tools in our panning area besides the pan itself. The purpose for this rule is to stop overall destruction of the creek. It does not take very much time to become an "expert." We usually say a person has learned the art of panning if they can get down to black sand in the pan. We request that groups do not "salt" the creek with fake gold nuggets because it leads to confusion for everyone else using the area. It is possible to find gold in every pan if you know where to look and are careful while panning. You will probably find very small flakes although we have seen small nuggets taken from the creek. To collect your "finds," you might want to purchase a "gold vial" at the museum for twenty-five cents.

The following steps will describe the process of gold panning:

1. Fill the pan with dirt, getting at the layers along the creek side at the water level or below. Do not pick up the tailings that other panners have discarded into the center of the creek.

2. Find a comfortable place to sit or crouch near the creek and fill the pan with water. Using your hands, wash out any plant material and large rocks. Pour off the muddy water and refill the pan, continuing to remove rocks until mostly clear water and fine-grained gravel/sand remains.

3. Agitate the water/sand mixture without spilling. You are trying to wash gold flakes loose from the rest of the mixture. The flakes along with black sand are heavy and will settle to the bottom of the pan.

4. After about 10-15 seconds of agitation, reduce movement while you begin to tilt the pan. The gold and black sand will settle into the bottom curve of the pan and allow you to pour off some of the gravel and all of the water. The more you pour off, the faster you will get to the black sand and gold, but you may also be losing gold flakes that have not yet settled.

5. Again add water to the pan; agitate, wash, tilt and pour. As the amount of gravel/sand in the pan is reduced, you will start to notice black sand. Continue until only black sand remains in the pan. At this point, you should be able to see gold flakes. If not move to another area and try another pan full of dirt.

6. Using the slight weight difference between gold and black sand, you can actually pan away the sand until all that is left is gold. But you may want to collect the black sand with the gold.

7. If you think that you have found a gold flake, you can test it by seeing if it will bend. Gold is soft whereas other gold-looking rocks are brittle and will break or crumble.
8. A gold vial is the best way to store your gold flakes. Fill the vial to the top with water. Using a dry finger, lift a gold flake from the pan and touch it to the water in the vial. The flake and any black sand will fall to the bottom of the vial.

**ELP Supplies provided:**

*Gold Pans*
ELP Period Crafts
Many of our ELP Teacher/Chaperone Training Day activities are held throughout the main street of the old town of North Bloomfield. During your school’s stay at the ELP campsite, all crafts that were learned during the training day will be performed at this site. The old historic buildings in town will only be used for the Scavenger Hunt program.

Teachers can structure many of the crafts to be performed at the same time and several of the crafts work well when limited to 6 students only, having the students rotate to a new craft station upon completion. Limiting the class size gives students more hands on training.

It is highly recommended that your adult chaperones teaching the project read over each craft’s instructions thoroughly to refresh their memories before doing the craft. This will reduce the set-up and teaching time and should any questions arise someone could request assistance from staff in the park headquarters in advance.

When finished with a craft be sure and place all supplies neatly back into the craft tub which stays in the ELP shed. Refer to craft instruction sheet supplied to determine what is included in each tub.

Students may use the masking tape and felt pen provided to write their name on a project.
ELP Period Crafts

Candle Making
Students will create two 5” wax candles by dipping wicks into hot candle wax. Candle can be used for the ELP Small Lantern Project.

All supplies for making candles are located in a tub inside the ELP Shed, along with additional wax and candle sticks for dipping.

DO NOT STIR THE CANDLE POT. WATCH THE POT AND MELT THE WAX THROUGHLY BEFORE DIPPING THE WICKS.

Supply Tub Contents: (RETURN ALL OF THE FOLLOWING ITEMS TO TUB.)

Candle Making Project Supplies Tub Sheet and Instruction Sheet (laminated)
Candle Wick
Masking Tape (used to wrap around candle wick to write name on)
Felt Pen (for writing name on masking tape)
Scissors (1)

Set-Up:
• Cut candlewick 18” long, one wick for each student.
• Each student will have one wood candle stick and one strand of wick.

Instructions for Project:
• See Instructions for project below.

Completion of Project:
• After candles have been removed, scrape any dried wax left on the wooden sticks, being sure to open any sealed holes so wick can be threaded through.
• Return all supplies to tub. (See Tub Contents list above)

Note:
The candle rack for hanging the finished candles to cool is located by the candle pot outside.

ELP Supplies provided by park:
Candle Pot
Wax to start project
Candle Wick
Candle Sticks for dipping
Scissors

School Supplies the Following:
2 Bricks of Wax to Replace Quantity Used
Candle Making Instructions

Candle pot will have wax in it from prior use. You might need to add more wax to bring to a level 2 inches below lip of pot. Do not add wax above this limit.

Start heating pot at least an hour ahead of dipping. Remember No Stirring the Pot! Do not heat wax to boiling point.

Instructions:

1. Thread one piece sting of candle wick into holes located at the top of wooden stick, making sure the wick hangs evenly down for both candles. Use 18” for two 5” candles (Small Lantern)

2. Have students form a single line by candle pot. (Pot is very hot and not to be touched.) Have students slowly dip their wicks into hot wax to about 1 ½ inches below wood stick and remove from wax to drip a few seconds in pot. Be sure students do not swing their sticks. Hot wax could fly off and burn skin. Be sure students do not walk in front of candle pot where fire is exposed. All students are to stay behind brick walls and dip wicks over wall into candle pot. Once wicks are dipped into pot allow a few seconds for any excess was to drip off into the pot, not on top of the brick, before step 3.

3. Student will then walk around (tree) to allowing the wax to solidify. If candle is dipped to soon, the wax from prior dip will just re-melt and you will not be able to add more layers of wax.

4. Repeat #1 and #2 repeatedly until wax build up measures approximately 1 inch in diameter.

5. While candle is still warm, flatten the base of candle on a flat surface to stand.

6. Write student’s name on a piece of masking tape and wrap tape around top of wick just above wax.

7. Once candle has hardened, cut wick just above masking tape.

Tips:

Place a large bucket of cold water on the ground by candle pot so students can dip their candles in to cool the wax quicker before they walk around tree.

Students can take both candles and, while warm, twist around each other, keeping the candle straight to form one thick candle with two wicks to burn.

Before wax cools completely flatten bottom of candles so they stand on a flat service.

(Estimated time for project: 1 to 1½ hours)
ELP Period Crafts

**Cloth Doll**

Nothing was left to waste back in the 1800s when it came to cloth that was purchased for sewing dresses and shirts. Children would take the excess cloth, tear them into strips and make a very simple doll to play with.

Today students will create a “Nettie” Doll just from strips of cloth material and a little twine.

*(Teacher will pick up cloth for project at Museum when checking in.)*

**Supply Tub Contents:** *(RETURN ALL OF THE FOLLOWING ITEMS TO TUB.)*

Cloth Doll Project Supplies Tub Sheet and Instruction Sheet (laminated)
Black Felt Pen (for writing name masking tape to identify project)
Masking Tape
Scissors (3)

**Instructions for Project:**

- See Instructions for project below.

**Set-Up:**

- Place pre-portioned cloth strips at each student’s station on the table.
- Each student receives one bundle of 12 long and 6 short cloth strips.
- Pre-cut twine into 4 – 4” lengths, 6 – 4” lengths for boy dolls.
- Student might like to trade strips before beginning the project – just be sure they still have 12 long and 6 short strips to work with.

**Completion of Project:**

- Return all supplies to tub. (See Tub Contents list above)
- Place any unused cloth strips in a separate baggie provided and place in tub.

**ELP Supplies provided by park:**

- Strips of Cloth
- Twine
- Scissors

**School Supplies the Following:**

- Nothing!
Cloth Doll Instructions

1. **For the body** – Untie the knot holding all the cloth strips together. Set aside the short stack of strips to be use later for the arms. Take the long stack of cloth strips, (do not separate strips, keep the stack together) and tie a piece of twine tightly around the center of the stack strips to hold them together.

2. **For the head** – Fold over the long cloth strips, hiding the twine with one strip of cloth by folding it over the top of the twine to the other side. Prior to tying the knot for the head adjust the cloth strips so the head is round. With another piece of twine, tightly tie a knot around the entire strips of cloth about 2 inches from the top to form the head.

3. **For the Arms** – Taking the short strips of cloth, hold all of these strips together and tie a piece of twine tightly ½ inch from each end.
   - Instead of twine, students can use two of the cloth strips in this bundle to tie each end. This forms the hands of the doll.

4. **Finish** – Evenly separate the cloth strips in the body (long strips) just below the head of the doll so you have an even amount of cloth strips on both sides. Insert the arms (short strips) in the middle of the body’s long cloth strips just below the head and bring all of the body (long) strips together below the arms. Now tie a piece of twine tightly around the body of the long strips of cloth. This is the waste of the doll. You may need to trim the skirt to even it.

**Tips:**

- For a boy doll, separate the skirt and tie off at the ankles with twine or two pieces of cloth set aside from the small bundle.
- Use the felt pen to make eyes and a mouth on the cloth strips.
- DO NOT take strips of cloth from any bundles not assigned to a student. Only have students share amongst themselves.

*(Estimated time for project: 15 to 25 minutes, including preparation time)*
ELP Period Crafts

Crocheting

(Material for project is available at Museum when checking in.)

Nothing was left to waste back in the 1800s when it came to cloth that was purchased for sewing dresses and shirts. Children would take the excess cloth, tear them into long strips, tie them together and crochet them into coaster, hot pads, or rugs.

Today students will create a very small cloth rug using torn strips of cloth and a crochet hook. The project is small but they will learn the procedures to continue crocheting and make a full size rug of their choice. This project can also be done using yarn.

Supply Tub Box Contents: (RETURN ALL OF THE FOLLOWING ITEMS TO TUB)

Crocheting Project Supplies Tub Sheet and Instruction Sheet (laminated)
Crochet Hooks (7 hooks – 4 large & 3 small)
Felt Pen (for writing name masking tape to identify project)
Masking Tape
Scissors (2)

Set-Up:

• Students will take 4 strips of torn tee shirts for their project and 1 crochet hook each.

Completion of Project:

• Return all supplies to tub. (See Tub Contents list above)
• Return any unused cloth strips in tub provided to the Museum prior to checkout.
Crocheting (Cloth) Project Instructions

1. Student will start by using one strip of torn cloth and chain stitch 5 stitches with the crochet hook.

2. Connect cloth to beginning chain stitch by doing a slipstitch on top of first chain from hook. This will form a round chain.

3. Continue in same direction, using same cloth strip and single crochet in center of round chain 5 times.

4. When you reach the first single crochet of the round continue around by single crocheting on top of previously crocheted single crochet.

5. As you run out of cloth strip, leave at least 4 inches to end of the strip yet not crocheted and attach a new cloth strip as follows.
   
   Cut a small ½ inch slit 1 inch from end of cloth strip. Do the same at the beginning of the new cloth strip that will be used to attach to working cloth.

   a. Pull new cloth strip through hole on working cloth end a few inches. Take end of new cloth strip and pull through slit made at beginning of same strip. Pull all the way through to connect both strips.
   
   b. Continue crocheting as before.

6. When you come to the last cloth strip, continue to single crochet in the round until you have approximately 4-5 inches left on that strip and tie off end to next single crochet stitch. Trim end close to knot.

7. Use masking tape to attach your name to project or just write your name on cloth.

*(Estimated time for project: 30 to 45 minutes, including preparation time)*
ELP Period Crafts

Felting (wool) *(Crafting materials not supplied by park.)*

Students will use natural sheep’s wool to create a small pouch, which when finished can be used to hold small objects, coins, or gold nuggets to purchase items in camp.

*(Material for project is gathered after teacher finishes the check-in process. Wool is pre-packaged in plastic baggies, one per child. Return empty baggies to the material tub.)*

**Project Supply Tub - Contents:**
*(RETURN ALL OF THE FOLLOWING ITEMS (DRY) TO THE TUB AFTER COMPLETING PROJECT.)*

- Felting Supplies Tub Sheet and Instruction Sheets (laminated)
- Dawn Liquid Dish Soap
- Leather Lace
- Dry Towels
- Hand Soap (3 Bars)
- Crochet Hook (1)
- Wood Cloths Pins
- Netting (6 pieces)
- Scissors (3)
- Garbage Bags (for returning wet towels)

**Set-Up:**

- Warm water in pots over fire.
- Prepare two small bowls of warm-soapy water, using a few drops of Dawn Liquid Dish Soap.
- Place two bowls of warm-soapy water and two towels in center of table for six children to share. Each student (6) will have their own netting at their station.
- Prepare work surface by laying down a dry tarp over entire work surface. Tarps are found in the ELP shed on the top shelf, right side.
- Each student will select his or her own rock provided in the rock bucket.

**Instructions for Project:**

- See Instructions for project below.

**Completion of Project:**

- Return all supplies, except unused wool, to the small supply tub and return to the shelf in ELP shed. (See Tub Contents list above)
- Rinse out towels and hang with wooden clothes pins (Small “Laundry” Tub) to dry. Once dry, fold and return to the small felting supply tub is shed.
- When checking-out, return any wet towels in the white garbage bag to the museum and return any dry or wet (use baggy) wool to museum in the material tub.
- Be sure the tarp is dry prior to folding and returning to ELP shed.
- Store all finished pouches in ELP shed overnight. DO NOT leave outside and DO NOT place pouches by fire to dry.

**ELP Supplies provided by park:**

- Small Rocks

**School Supplies the Following:**

- Wool, Crochet Hook, Wool Cards, Towels
- Soap, Scissors, Netting, Lace
Felting Project Instructions

Materials Needed:
- Warm Water (heat over fire)
- Wool
- Wool Cards
- Netting
- Dish Soap
- Tarp to cover table (use under project)
- Scissors
- Towels (dry)
- Leather
- Bars of Soap
- Rock (No larger than 4 inches in diameter)
- Lace
- Large Crochet Hook
- Bowls of Soapy Water (1 shared between 2 students)

Instructions:

1. See Felting Supply Tub “Set-Up” procedures.

2. Card the wool to separate fibers and set aside several small sections to use for the project.

3. Select a smooth, round rock from the black bucket to use for your project. Wash any dirt off and be sure it is completely wet prior to starting.

4. Prepare bowls of warm-soapy water, using several drops of liquid dish soap. Swish water to make lots and lots of suds.

5. With dry hands, pull several small strips of wool from card and set aside. Spread the wool over the rock, overlapping and cross-wise to the previous piece.

6. Once you have several pieces laid over the top of the rock, cover the rock snuggly with the netting, wet your hands with lots of the soapy water and press the wool over the rock, being careful not to fold over or roll any of the wool. Be sure the wool under the netting becomes completely wet with warm water. This will tighten the wool around the rock, making the wool fibers bind to each other. Be sure to press the wool in any crevices in the rock. Dry your hands before taking more dry wool to cover the sides and back of the rock. Keep repeating this procedure until you have completely surrounded the rock and no longer see the rock through the wool. Wet your hands often, use the netting and smooth the wool over the rock. Use more warm soapy water, or the bar of soap, working up a thick lather of soap in your hands to thoroughly wet the wool. You can never use too much soapy water.

7. After you have entirely covered the rock with one layer of wool, wrap the netting snuggly again around the rock to begin massaging the wool. Use only your palms to smooth the wool over the rock, not your fingertips because this causes clumps that will not bind together. If clumps form cut them off closely to the rock and add more wool to that area.

8. Cover the rock with a minimum of 4 layers of wool. If fewer than 4 layers are used to cover the rock your pouch will be too thin, may tear, and not hold its shape. Each layer must completely surround the rock. (TIP: Use different colors of wool for each layer to help see what needs to be covered and be sure you use lots and lots of soapy water while you work the wool.)

9. Once you have finished covering the rock with the final layer of wool, begin massaging the wool by covering the rock again with the netting. Use more warm soapy water if necessary. Use only your palms to massage the wool under the netting. Keeping the wool wet, massage the wool until the wool forms a tight hold on the rock, no bubbles or ripples. Be sure the water is warm to help speed shrinkage of wool. (Minimum of 10-15 minutes of massaging.)
Felting Project Instructions – Continued

10. Dry your hands and place a fairly dry towel under your rock, netting still covering rock, and pat the wool to soak up excess soap and water.

11. Take scissors and cut a small slit in the wool where you want the opening of the pouch to be. Don’t make too large a slit because when you start pulling the wool off the rock the opening will become wider.

12. Gently pull the felting over and off the rock by putting your finger down between the rock and the wool and pull away gently. The felt will hold the shape of the rock.

13. Using warm, soapy water massage the inside of the pouch to seal the wool fibers like you did the outside. You can gently turn the pouch inside out to do this. When finished, rinse project out in clear warm water to remove soap and shape to dry.

14. Once the felt is dry, punch holes in edges around the opening about 1-½ inches apart. Using a sharp scissor, thread the leather lace, tie off the ends in a knot and draw pouch sides together. You now have created a drawstring pouch that you can carry or tie to your belt loop.

(Note: Any wet and unused wool that is left over can be reused once dried.)

Time to complete project, not including drying time: 1 to 1 ½ hours.)
ELP Period Crafts

Leather Craft  *(Crafting materials not supplied by park.)*

Gold Pouch

The children will be making a small leather gold pouch. All necessary materials and tools are provided for this project. Upon registration please let us know how many children will be participating and we will provide the pre-cut leather and lace.

Pouches could be used to hold the black sand that the children panned from the creek or other items earned throughout their stay. These items could then be used to buy dinner or items sold in a general store that the school sets up.

**Please use only the leather punching tools and nothing else or damage will occur to the tools.**

To create a gold miner’s pouch:

1. Take one 12” square rubber punch board (provided) and place it on the picnic table. Center one round, pre-cut leather pouch on the rubber.  *You must use this rubber punch board and not wooden tabletops or stone. Doing so will damage the punch tools.*

2. There are 4 metal punches and 4 poly mallets available for the children to use. *Please do not use the metal hammers for this step.* Be sure you punch through the leather. Children can sometimes punch holes better if standing up.

3. Have each child punch a hole around the outside of the leather, about ¾ inches from the edge and no more than an inch apart. There will be about 25 holes around the pouch when completed. Do not punch the holes close to the edge because this could cause ripping if heavy objects are inserted into the bag.

4. Take one leather lace and weave through the holes until you come to the last hole, just before the starting hole of your weave. (You will have to gather the leather together as you weave or the end of the lace will pull through the starter hole as you go.) Pull the lace through all the holes evenly and tie the two loose ends together with a knot.

**School to provide:**

- Metal Punches
- Poly Mallets
- Rubber Boards/Mats
- Leather
- Lace
ELP Period Crafts
Lucet (cording)
This very old craft was created hundreds of years ago, dating back to the Vikings. The knot was used to make cording of all different sizes, from clothing to nautical application.

Today children will create a small sample of a corded yarn, which could be tied off to make a bracelet. Students can take this knowledge with them and later make the same knot using different materials such as twine to make a rope or leather lace to hold eyeglasses or make shoelaces. Students can also do this project using their own fingers.

(Teacher to pick up yarn for project at Park Office when checking in.)

Supply Tub Contents: (RETURN ALL OF THE FOLLOWING ITEMS TO TUB.)

Lucet Project Supplies Tub Sheet and Instruction Sheet (laminated)
Lucets (7) (Use one lucet for demonstration purposes)
Felt Pen (for writing name masking tape to identify project)
Masking Tape (wrap around end of yarn)
Scissors (2)

Instructions for Project:
• See Instructions for project below.

Set-Up:
• Each student will have one wooden lucet and one string of yarn at their station. Yarn is supplied 6 strings to a bundle (six students.)

Completion of Project:
• Return all supplies to tub. (See Tub Contents list above)
• Return any unused yarn back to the large baggy and return to the Park Office prior to checkout.

ELP Supplies provided by park:  School Supplies the Following:
6 Wooden Lucets  Nothing!
Yarn
Scissors
Lucet (Cording) Instructions

(Refer to diagram below while reading instructions)

1. Take one end of the yarn and thread it through the hole in the base of the lucet, pulling yarn through until you have 3 inches of yarn hanging in front of hole. Throughout the project this small piece of yarn will always face towards you. Make a figure-8 with the yarn by taking the yarn strand from the middle back around to the front of the right prong, then back through the middle and around the front of the left prong. Continue to wind the yarn around the front of the right prong on top of the previous loop and wind yarn to the back and hold yarn and lucet in one hand. From now on, the yarn will wrap around the outside of the prongs only!

2. First Loop – With your free hand, take the lower loop on the right side and gently tug it up and over the upper strand of yarn on the same prong. Release, and pull loose end of the yarn snug, not too tight, and also pull the yarn tail through hole at base of lucet towards you to tighten knot. When you are finished tightening the knot, center the knot in between the lucet prongs before continuing with next step. The first few loopovers will look too tight and messy, but be patient.

3. Second Loop – With the loose end of the yarn still behind the backside of the lucet, bring it around and hold on top of existing loop and in front of the left prong. Take the lower loop on the left side and gently tug it up and over the upper loop of the same left prong. Pull through and adjust as in step 2.

4. Continue to wrap the yarn around the outside going in a counter clockwise direction (as you look down at the top) following steps 2 through 3 above.

5. To end project, take the yarn loop up and over the right prong and wrap it onto the left prong. Take the bottom loop on the left prong up and over the loop above it. Cut the yarn and run its end through the remaining loop, tightening knot. (Leave enough yarn at the end to loosely tie around wrist to make a bracelet.)
(Estimated time to complete project: 20-30 minutes)
ELP Period Crafts

Rope Making
The technique of twinning shorter plant and animal fibers into cordage of any length was a great advance in human technology. It might even be in the same rank as the invention of the wheel. Without cordage, we would have been using animal sinews to tie things up until someone invented scotch tape. It is not hard to understand how valuable rope had become by the 1850s. The technique we use in our ELP may not be historically accurate but the principle is the same.

It is recommended to have two adults working at this station who have tried the technique to keep things moving smoothly.

1. Using two ½” dowels, 12” long, tie 180’ of twine to the dowels. Loop and stretch the twine until the sticks are 60’ apart with three strands of twine connecting them.

2. Right-handed people should lightly rasp the twine with the left hand with the stick up against the hand. While standing to the side, facing the rope, the right hand will then turn the stick clockwise twisting the strands somewhat like winding up a rubber band powered airplane. The sticks should be pulled to stretch the rope every so often. This will spread the twist uniformly through the length of the rope.

3. When the third person tries to twist the rope in the middle and there is slight resistance to tightening, then the first step of the process is complete and the rope must be rippled over to proceed.

4. The middle person should stand facing the rope and close to the person to his/her left. Grab the rope in two places with the left hand about three feet from the end and the right hand another two feet away. Bend the rope in the left hand and loop it over the dowel with the right hand. The hand is now holding a loop that can be pulled to the other end and looped over that dowel. You should now have three strands stretched between the two dowels.

5. Pull on the dowels to even out the strands and straighten out all of the kinks. Begin twisting as before but now in a counterclockwise direction. This opposite twist is what holds the rope together.

6. After the rope is twisted tight, the middle person will rub wax into the rope and then the rope will be drawn over a low fire to singe off the loose fibers and melt the wax into the strands.

7. Using twine, lash the ends of the rope to prevent unraveling. This is done by folding over a 12” piece of twine and placing it alongside of the rope with the two ends facing the end of the rope. One end of the twine will then be wound around the rope and up towards the open twine loop. After several tight winds are placed over the rope to hold the twine in place the end is placed into the loop. The other end of the twine is pulled tight to close the loop and lock everything in place. If the rope is to be split between the partners, lash the middle of the rope in two places and cut the rope in half. The dowels can now be removed. You can use masking tape to make nametags for each rope or trust the students to keep track themselves.

**ELP Supplies provided:**
Twine, Wax, Scissors
Wooden Dowels
Masking Tape

**School Supplies the Following:**
Nothing!
ELP Period Crafts

Slate Writing

Paper was very expensive to own back in the 1800s so school children wrote the answers to their lessons on a slate board using a piece of chalk. Today we use computers in our classroom and at home to do our schoolwork.

(Supply Tub is to be picked up at Park Office at Check-in, returned at Checkout.)

Supplies - Tub Contents: (RETURN ALL OF THE FOLLOWING ITEMS TO TUB.)

Slate Writing Project Supplies Tub Sheet and Instruction Sheet (laminated)
Slate Boards (30)
Chalk
Rags for Erasing Board

Instructions for Project:

• See Instructions for project below.

Set-Up:

• Each student will have their own slate board and a piece of chalk. Students can share rags to erase board. Please be sure all boards are erased before returning to tub.

Completion of Project:

• Return all supplies to tub. (See Tub Contents list above)
• Return material tub to Park Office when checking-out.

ELP Supplies provided by park:

Slate Boards
Chalk
Rags (to erase boards)

School Supplies the Following:

Nothing!
Slate Writing Project Instructions

Suggestions:

1. A math lesson involving statistics comparing grocery prices, population changes, gold prices and weight measurements, lessons relating to the mid-to-late 1800s gold rush period.

2. A spelling bee or just spelling words related to the gold rush period, our town and hydraulic mining equipment.

3. Draw pictures of placer mining equipment, including hydraulic equipment used here in North Bloomfield.

*(Estimated time for project: 30 to 45 minutes, including preparation time)*
ELP Period Crafts

Tin Punching – For Large Lantern/Candle Holder

This project was developed to allow students a way to use their candles for light at night. It also introduces them to the idea of punched tin as a decorative art. It is advisable to find a parent helper with a table saw that can prefabricate the parts for the lantern. Be sure to have spare parts to replace any that are broken if split when nailing. The materials should cost about two dollars per lantern. Construction of the lantern is fairly simple but it is always advisable to make one before trying to help the students. We have found that tin is increasingly harder to find and cost prohibited. The park provides aluminum sheeting, which works very well at a cost of .50¢ per sheet, payable at check-in.

Instructions for Project:

• See Instructions for project below.

Set-Up:

• Each student will have a long wooden board for punching, a piece of aluminum sheeting, one long nail and a hammer at their station.

• Be sure and place the long wooden boards, located in the ELP shed, underneath the aluminum prior to punching. Do not punch directly on picnic table.

Completion of Project:

• Return all nails and hammers to ELP shed.

**ELP Supplies provided by park:**

- Wooden Boards for Punching
- Aluminum Sheetings
- Nails
- Hammers

**School Supplies the Following:**

- Plexiglas
- Cost for Aluminum Sheetings - .50¢ per sheet
- Wood for Sides and Base
- Bailing Wire for handle
Instructions:

Tin Punching – For Large Lantern/Candle Holder

Punching the pattern into the aluminum will take the most amount of time so here are some hints:

1. The cut aluminum is very sharp on the edges. The students should be constantly reminded to handle it with care and move slowly. Some teachers have used masking tape to cover the edges but most have carefully handled the aluminum without any problems.

2. Have the students design a pattern ahead of time. Using the measurements for the aluminum piece, make sure the pattern is centered on the top and also centered on the sides but not where the top and the bottom pieces are nailed. Most of the old patterns were simple geometric designs. Holes will be punched along the pattern lines and it is unnecessary to plan the holes. More holes allow more light to escape the lamp, but if the holes are too close together there is a chance that the aluminum section will be cut out, destroying the pattern.

3. To transfer the pattern onto the aluminum, you may use a grease pencil to draw the pattern on the inside of the lantern. After punching the holes and before assembly, wipe the drawing off the tin with a rag.

4. Using a brace and bit, drill a shallow hole in the center of the bottom to hold the candle.

5. Bring bailing wire or thin coat hangers to use as handles. This may be attached to holes punched into the tin prior to assembling the lantern. The holes should be near the edges of the aluminum at the top of the lantern.

6. Assemble the lantern by nailing the aluminum onto the bottom piece of wood making sure that the aluminum is centered between the two slots. Put the Plexiglas pieces in place with the two top pieces attached. Lay the lantern on its side to nail the tin to the top pieces using the 3d box nails. Make sure that the tin is stretched smoothly over the sides.
Large Lantern

1 piece of tin - 6X30"
2 pieces of plexiglass - 1/8 X 5 X 10"
1 bottom - 3/4 X 5 X 7" with slots cut 6 1/8" apart
2 top pieces - 3/4 X 5 X 1 1/2" with slots cut 1/4" from edge

ELP Tinsmithing - Candle holder
ELP Period Crafts

Tin Punching - Small Lantern/Candle Holder

Supply Tub Contents: (RETURN ALL OF THE FOLLOWING ITEMS TO TUB)

Tin Punching Project Supplies Tub Sheet and Instruction Sheet (laminated)
Completed Demonstration Lantern
Hammers (6)
Box(s) of Nails
Paper Templates (templates have dots for holes needed to insert wire handle)
Small Metal Clamps (6)
Pliers (1)
Felt Pen (for writing name on wood base to identify project)

Set-Up:
• Each student should have one of each item at their station:
  Wood plank for punching.
  Aluminum sheet
  Wood base (bottom of lantern)
  Nail for punching
  Hammer
  Piece of bailing wire
  Metal clamp

Completion of Project:
• Return all supplies to tub. (See Tub Contents list above)
• Return any unused sheeting, wood bases and bailing wire in separate tub provided to the Museum prior to checkout.

ELP Supplies provided:
- Wood boards for Punching
- Wood Base for Lantern
- Aluminum Sheet (pre-cut)
- Bailing Wire for Handle
- Nails and Hammers

School Supplies the Following:
- Aluminum Sheet, if not purchased at park
  Cost for Aluminum Sheet ~.25¢ per sheet
- Pre-designed paper template for punching
Tin Punching (Small Lantern) Instructions

Before electricity was invented people had to light their way at night placing their homemade candles in lanterns, which protected the flame from blowing out in a strong wind. It was easy to punch holes in tin to make designs and allow the light to penetrate through.

This smaller version of tin punching and lantern making reduces the cost to schools considerably by utilizing less material and eliminate pre-construction cost and time. Students will punch a design onto a piece of aluminum sheeting and construct a 6” lantern to hold their candles (See above “Candle Making” craft.)

Instructions:

Punching:

1. Take one aluminum sheet and tape the top and bottom to a 1” by 6” board, large enough to hold entire sheet.

2. Center the paper template on sheet and tape to wood board. Template has dots for holes needed for handle placement. (Students can also punch their own design freehand if they like. Just remember to space holes throughout sheet for even light dispersion and have holes for handle placement.)

3. Hammer one nail through the paper dots and aluminum sheet to wood board. Remove the nail and continue until all dots are punched. When completed remove paper template, if used, and aluminum sheet from board.

Lantern Construction:

1. Take the wood square and hammer one nail all the way through the center of the wood. This will hold your candle upright in the lantern.

2. Wrap the bottom of your aluminum sheet around all four sides of the wood base, keeping the edge flush with the bottom of the wood base. The over-lapped edges that come together will be the back of your lantern and your handle will be attached through these pieces. Use one medal clamp to hold the top edges of the over-lapped sheet in place while you complete the project.

3. Hammer 8 nails, spaced evenly through bottom of aluminum sheet, into wood base.

4. Using pliers fold pre-measured bailing wire in half and twist to form handle. Twist one end up from bottom ½ inch. Align holes on both ends of sheet and insert bottom of wire into bottom hole to anchor handle and insert top of wire in top hole. Twist top wire up and around handle to secure.

(Estimated time for project: 1 to 1½ hours)
ELP Period Crafts

Tug-o-War Rope Game

(The rope is stored at the Park Headquarters and collected during check-in.)

Instructions:

1. Tie a rag or piece of cloth in the center of the rope. This is your marker to determine when one side wins the pull.

2. Draw two lines about 2’ long ea. in the dirt about 6 feet apart in front of each team member closest to the rag. These lines will indicate who wins the pull when the center of the rope (rags) crosses the line.

3. Have students divide themselves into two teams of 10 students each. Each team lines up along the length of each end of the rope. Each student on a team will grab one section of the rope with both hands, alternating students on each side of the rope. All students face the rag in the center.

4. One person, not on a team, holds the center of the rope (rag) still then signals the pull to begin, releasing the rope.

5. At a signal, both teams begin pulling at the same time, trying to move the rag over their line in the dirt to win the pull.

Please be sure to return rope to Slate Writing Tub and return tub to Park Office when checking-out of site.

ELP Supplies provided: Rope

School Supplies the Following: Nothing!
ELP Period Crafts

Wood Working

Bench Project

This project station will allow students to use simple hand tools to make a bench or footstool. If the bench is made on the first day, it will come in handy throughout the program. The basic bench was designed for sturdiness and ease of construction. The 1 x 8 pine boards should not have too many knots but does not need to be clear. The student should be able to start with a 36” 1 x 8 and a 24” 2 x 4. After three saw cuts and some nailing, they will have a bench to use. The adult leader of this station should try making a bench before helping the kids. It is good to find a parent with some woodworking skills and power tools to make up the material package for each student. The necessary hand tools and nails for this project are available at eh ELP site.

If the students find the basic design to easy, they might add a V-notch on the end pieces to give the four-legged appearance; using a brace and bit, they would place a couple of finger holes in the top as carry holes; or pieces of metal (not provided) could be heated in the fire to use to burn designs into the wood.

ELP Supplies provided:

Nails and Hammers
Malakoff Branding Iron

School Supplies the Following:

Pre-Cut Wood
1X8X36" pine

2X4X24" fir

ELP Woodworking

Bench Project
Supply Inventory – ELP Shed (Sample)

The following supplies are available for your use during your stay here in the park. You will find these items stocked in the ELP shed, located at the campsite. Upon receipt of your cleaning deposit check you will receive this inventory list. At checkout and satisfactory review of the inventory in the shed, your cleaning check will be returned.

*Please take moment upon arrival to review the contents and locations of tubs and supplies. Shelf contents read from left to right.*

<table>
<thead>
<tr>
<th>LEFT SIDE</th>
<th>RIGHT SIDE</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1st (Top) Shelf</strong></td>
<td><strong>1st (Top) Shelf (Items Could be Utilized)</strong></td>
</tr>
<tr>
<td>1 – First Aid Supplies</td>
<td>4 – Tarps (Medium)</td>
</tr>
<tr>
<td>1 – Bottle of Vegetable Oil for seasoning Dutch Ovens</td>
<td>3 – Tarps (Large)</td>
</tr>
<tr>
<td>1 – Roll of Tin Foil</td>
<td><strong>Tub (small) – Tent Supplies:</strong></td>
</tr>
<tr>
<td>2 – Bottles of Bleach</td>
<td>Tent Stake Rope</td>
</tr>
<tr>
<td><strong>Tub – Laundry Supplies</strong></td>
<td>26 – Tent Stakes</td>
</tr>
<tr>
<td>2 – Bottle of Dishwashing Liquid</td>
<td>29 - Plastic Gold Pans</td>
</tr>
<tr>
<td>Misc. Cleaning Supplies</td>
<td></td>
</tr>
<tr>
<td>Toilet Paper</td>
<td></td>
</tr>
<tr>
<td>Trash Bags</td>
<td></td>
</tr>
<tr>
<td><strong>2nd Shelf</strong></td>
<td><strong>2nd Shelf</strong></td>
</tr>
<tr>
<td>2 – Wooden Racks of Metal Plates (56 count)</td>
<td>Tub – Cloth Doll Supplies</td>
</tr>
<tr>
<td>2 – Large Metal Serving/Mixing Bowls</td>
<td>Tub – Crocheting Supplies</td>
</tr>
<tr>
<td>1 – Colander</td>
<td>Tub – Lantern (small) Supplies</td>
</tr>
<tr>
<td>3 – Large Plastic Serving/Mixing Bowls</td>
<td>Tub – Lucet Supplies</td>
</tr>
<tr>
<td>2 – Large Wooden Serving/Mixing Bowls</td>
<td>Tub – Candle Making Supplies</td>
</tr>
<tr>
<td>2 – Wooden Racks of Metal Cups (51 count)</td>
<td>1 – Wooden Box of Wooden Candle Sticks</td>
</tr>
<tr>
<td>19 - Small Brown Plastic Bowls</td>
<td>1 – Box of Candle Wax</td>
</tr>
<tr>
<td>28 – Small Metal Bowls</td>
<td></td>
</tr>
<tr>
<td>2 – Racks of Metal Cups (60 count)</td>
<td></td>
</tr>
<tr>
<td><strong>3rd Shelf</strong></td>
<td><strong>3rd Shelf</strong></td>
</tr>
<tr>
<td>6 – Plastic Cutting Trays</td>
<td>Tub – Rope Making Supplies</td>
</tr>
<tr>
<td>1 – Wooden Knife Block with Knives</td>
<td>Tub – Robe Supplies</td>
</tr>
<tr>
<td>2 – Cheese Grater</td>
<td>1 – Wooden Box of Misc. Sheets of Sand Paper</td>
</tr>
<tr>
<td>1 Gray Utensil Trays</td>
<td>1 – Wooden Box of Tools</td>
</tr>
<tr>
<td><strong>2 Tubs - Misc. Spatulas, Utensils, measuring cups</strong></td>
<td>1 – Wooden Box of Wood Hammers:</td>
</tr>
<tr>
<td>7 – Coffee Pots</td>
<td></td>
</tr>
<tr>
<td>2 – Cookie Trays</td>
<td>1 – Wooden Box Metal Hammers</td>
</tr>
<tr>
<td><strong>Bottom Shelf</strong></td>
<td><strong>Bottom Shelf</strong></td>
</tr>
<tr>
<td>Misc. Cooking Pot Lids</td>
<td>Tub – Newspaper to Start Fires</td>
</tr>
<tr>
<td>3 – Large Metal Frying Pans</td>
<td>2 – Fire Chimneys</td>
</tr>
<tr>
<td>3 – Lg, Med, Sm Cooking Pots Stacked together</td>
<td>Box of Matches</td>
</tr>
<tr>
<td></td>
<td>1 or 2 Bottles of Lighter Fluid</td>
</tr>
<tr>
<td></td>
<td>Tub – Misc. Gloves and Mittens</td>
</tr>
<tr>
<td></td>
<td>2 – Bags of Charcoal</td>
</tr>
</tbody>
</table>
## Supply Inventory – ELP Shed (Sample)

### LEFT SIDE

<table>
<thead>
<tr>
<th>Floor (Under Bottom Shelf)</th>
<th>Floor (Under Bottom Shelf)</th>
</tr>
</thead>
<tbody>
<tr>
<td>3 – Cast Iron Dutch Ovens (14 qt.) w/lids</td>
<td>Misc. Wooden Planks for Tin Punching</td>
</tr>
<tr>
<td>2 – Cast Iron Dutch Ovens (12 qt.) w/lids</td>
<td>Completed Wooden Benches (For Use)</td>
</tr>
<tr>
<td>1 – Cast Iron Dutch Oven (10 qt.) w/lid</td>
<td>1 - 5-gallon bucket of nails</td>
</tr>
<tr>
<td>2 – Cast Iron Dutch Oven Skillets w/lids</td>
<td></td>
</tr>
<tr>
<td>2 – Cast Iron Dutch Oven Potgie w/lids</td>
<td></td>
</tr>
<tr>
<td>1 – Large Cast Iron Frying Pan w/lid</td>
<td></td>
</tr>
</tbody>
</table>

### RIGHT SIDE

**Inside Door Frame**

- 5 Brooms
- 2 Fire Extinguishers

### Back Wall

Please place items back under labels on pegboard.

<table>
<thead>
<tr>
<th>3 Metal Squares</th>
<th>Bungee Cords</th>
<th>Rotisserie</th>
<th>Dust Pan/Broom</th>
<th>2 Wood Clamps</th>
<th>4 Metal Clamps</th>
<th>6 - Aprons</th>
</tr>
</thead>
<tbody>
<tr>
<td>Dutch Oven Utensils</td>
<td></td>
<td></td>
<td>8 Sm Saws</td>
<td>6 Lg Saws</td>
<td>1 Axe</td>
<td>1 – Yard Stick</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

At the end of your program and prior to departure, please place all miscellaneous washtubs on floor inside the shed. Thank you.

### Back Wall – Floor

<table>
<thead>
<tr>
<th>Cast Iron Grill</th>
<th>Malakoff Brand</th>
<th>2 – Lg Handle Axes</th>
<th>1 – Square Shovel</th>
<th>1 – 5 gallon felting rocks</th>
</tr>
</thead>
<tbody>
<tr>
<td>Grill Stand</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Please remember - Chaperones are to review all crafting instructions prior to demonstration.

**Thank you for....**

- Cleaning the supply items before returning them to their correct location.
- Returning all crafting materials to their respective tubs. (Review craft instruction sheet for tub contents.)
- Making sure there is no water in the Dutch ovens and the ovens are seasoned.
- Sweeping the floor.
- Rolling up the hose outside.
- Returning all wheelbarrows to the back side of the shed, tilted up against the wall.
- Making sure any fires are completely out!
- Making a final check of the tents and grounds for any left behind items.

Your corporation is greatly appreciated!

---

**Park Staff:**

CHECK-OUT REVIEW: Check Returned / Check Held - Reason ____________________________
North Bloomfield Scavenger Hunt

Program Description

The self-guided two hour Scavenger Hunt at Malakoff Diggins State Historic Park is designed to provide you with better access to the history of North Bloomfield. There are six historic museums available; the Ostrom Livery Stable, Cummins Hall (visitor center), Kings Saloon, Smith-Knotwell Drug Store, McIllican & Mobley General Store, and the Skidmore House. Students will look for specific items representing life in the 1800s, jot down their answers, and arrange specific letters to arrive at a word that miners commonly used to describe their great enthusiasm upon finding gold. (E-U-R-E-K-A)

Upon arrival, please gather all your students and chaperones together meet on the museum porch (Cummins Hall). A park staff member will then give a short talk to the entire group, including a brief history of the park and review guidelines for using the museums, before buildings are opened up.

We recommend that the students view our 15-minute video about hydraulic mining in the visitor center museum prior to starting the hunt. This will give you a chance for last minute instructions or questions.

Adult Chaperones

You will need 8-10 adult chaperones to successfully facilitate the scavenger hunt. One adult chaperone will be stationed at each of the six buildings to provide security and supervision. One adult will be assigned to accompany each group through the buildings. The teacher should oversee the activity, time the groups’ stay in each building and initiate the rotation to the next building. A class of 35 will take approximately 1 and ½ hours.

To expedite the hunt please have the adult chaperones know what building they will be in charge of prior to arriving at the park and have their scavenger hunt papers ready so any questions can be answered prior to the students starting their hunt. The park staff cannot open the different museums without having them supervised by an adult. During the video the adult chaperones are stationed in each museum prior to the hunt. This way the students will be able to start their hunt immediately after watching the video. The students will spend between 10-15 minutes in each building before the next rotation. Chaperones are permitted to leave their museum once the last group leaves their building and park staff has arrived to lock up.

To allow students into the museums without careful supervision from park staff, we must ensure that all participants are familiar with our rules and why we have them. Most of our exhibits are out in the open and not behind glass. Many of the artifacts are very fragile and difficult to replace. The simple act of touching an object transfers body oils that will deteriorate a surface over time. The temptation to touch an object or engage in horseplay may lead to an irreversible accident.

Preparation for your visit:

• Familiarize your students and parents with North Bloomfield and hydraulic gold mining history before they arrive if possible. You might want them to review the park’s history on our web site: www.malakoffdigginsstatepark.org to further their knowledge.
• Designate teams of five or six students. Each team will be chaperoned by an adult.

• Please bring your own copies of the scavenger hunt to distribute to your students. Most teachers distribute one packet for each team.
North Bloomfield Scavenger Hunt – continued:

Program Description – Continued:

Suggestions:

• Many teachers choose to have each student receive a letter delivered by stagecoach to North Bloomfield (the state will have come and gone.) Each parent will have the homework assignment of writing a letter to their son or daughter as if the kids went west for the gold rush and the parents stayed behind on the farm, or in the city. Have the parents use their imaginations. Some parents make up hilarious stories about life back home, and even change their handwriting, using quill pens on parchment, burn edges of the paper, or make the envelope look as if it has been riding for months in a pony express bag. It is important that every student receive a letter. No one wants to be left out. (See sample letter below.)

• The saloon (King’s Saloon) will be open for drinks, snacks and cards. The students can be taught the simple rules of Blackjack or “21.” Please supply your own refreshments. Many teachers use root beer, ginger ale, juice, pretzels, popcorn, or licorice. Food or drink is not allowed in any of the other buildings. Experienced piano players only may use the piano.

(If you choose to have snacks, please inform park staff immediately upon arrival, and the saloon will be opened so food and drinks can be dropped off and set up prior to the hunt. Prior to leaving the saloon please clean up and place chairs and any playing cards back to their original position. Sweep the floor and wipe off the bar. Apple juice tends to leave a sticky mess if left to dry. A broom and dustpan will be available. You might also want to bring napkins, paper towels and a wet cloth.)

• You may barrow our gold pans and try your luck on nearby Humbug Creek (within walking distance.) If you have more than 30 students, you will need to break them up into smaller groups and have half gold pan while the other half does the scavenger hunt, and then rotate.

• Students may watch a 18-minute video, in our museum prior to the hunt, on hydraulic gold mining and local history.

• There is a wonderful natural diversity of Sierra Nevada plant and animal life at Malakoff Diggins. If you wish to have a guided nature hike, please inquire about staff availability.
My dearest son Skyler,

It feels like forever since you left our home in Rough and Ready, New York and headed out west to California. I was so thankful to get your letter that you had arrived safely and that no Indians had scalped you. There are still so many dangers that you face out there in the Wild West. Keep an eye out for grizzly bears. I’ve heard a story about an whole village that was eaten alive by one huge grizzly. Oh, and those claim jumpers. Sleep with your gun under your pillow. You never know when one of those vermin will try to slit your throat in the middle of the night. They want what you’ve got. I almost hope that you don’t find any gold so that no one will be trying to kill you for it. I’ve heard that the water you are using out there in North Bloomfield is strong. It can wash a man clear down to the valley. Keep your footing. I love you son and look forward to hearing from you soon.

With All My Blessings,
Your doting mother
Scavenger Hunt Student Contract

All Minors will abide by the following rules:

1. All displayed items must not be touched. Oils and dirt from your skin may rub off and slowly destroy old paper, wool, cloth, and even glass. Leave backpacks, hiking sticks, food and water outside of the building.

2. Mining groups must stay together with their adult chaperone at all times while participating in the Scavenger Hunt.

3. Miners must refrain from horseplay, running, pushing, and yelling.

4. Miners should mind the adult monitors at each station. They have the power to fine your mining group for individual misbehavior. You will have to pay with your grubstake, which means less for you to spend in the saloon.

5. All miners should be in the ELP site unless they are participating in the Scavenger Hunt. Please do not be in North Bloomfield unless it is your scheduled time, as we have many other “Miners groups” to serve.

The _____________________________ mining group has read the above rules of conduct. The individual miners who have signed below understand these rules and will abide by them or suffer the consequences of Gold Rush justice. This contract will be in effect as long as these miners are visitors in Malakoff Diggins.

______________________________  ____________________________

______________________________  ____________________________

______________________________  ____________________________

______________________________  ____________________________
North Bloomfield Scavenger Hunt Buildings

Cummins Hall/Museum

Ed Cummings purchased this building in 1873 and remodeled it into a saloon. It was originally a freight office, which handled the shipping of supplies for the miners and people living in town. In 1878, he added on the dance hall (which is now the park museum) so people would have a place for come for entertainment. Traveling musicians and theater groups would also perform here and then travel on to nearby mining camps.

1. In 1884, Judge Lorenzo Sawyer made a law that would stop the miners from dumping mud and rocks into the rivers. This made it difficult to mine for gold using the hydraulic method. The miners in the mountains made a poster that showed their feelings. Where is it? What is the fifth word on the poster?

   ____   ____   ____   ____   ____

2. The dance hall used to have a raised stage. In the old days, traveling musicians or theater groups would perform in this hall for all of the townspeople. The performers would get on stage from the back doors. The stage is gone but where are the stage doors?

   ________________________________

3. In the old days everyone used to cook on wood stoves. They used to have a small metal box with holes in the sides. They would put a slice of bread on each side of the box and put it on the stove to cook. What is it called and where is it?

   ____   ____   ____   ____   ____   ____   ____   ____

4. North Bloomfield often gets a lot of snow in the winter. Horses often have trouble walking in deep snow and so these square things were strapped to their feet to help them out. What are they? Where are they?

   ____   ____   ____   ____   ____   ____   ____   ____   ____   ____   ____   ____

5. Many Chinese men came to California looking for gold. Not many “struck it rich” and so they started other businesses to make money. The Chinese were very experienced farmers and so they started vegetable gardens and sold the produce to people in town. They used these things to carry big loads to town on their shoulders.

   ____   ____   ____   ____   ____   ____   ____   ____

6. Imagine working in a long dark tunnel underground with just a candle to light your way. A miner would use this metal tool to hook his candle on a ledge or poke it into a wooden beam. What is it called and where is it?


7. Families used to have a special book that was passed down from generation to generation. On the blank pages they would record the family’s births, marriages, deaths and other historical information. The rest of the book would often be read on Sundays. What is it and where is it?

North Bloomfield Scavenger Hunt Buildings

King’s Saloon

During the heyday of North Bloomfield (1870s) there were eight saloons operating. Saloons were a social outlet for the lonely and hardworking miners. The King’s Saloon building was originally an express office in the 1860s. Jack King remodeled the building in 1875.

North Bloomfield had two beer breweries, the Weise Brewery and the Hieronimus Brewery. Beer was five cents a glass and was the most popular drink since it was so inexpensive. Hard liquor was not made here and was imported from San Francisco or Sacramento. A half-pint of whiskey might cost as much as $2.00…. near the average miner’s daily wages. Beer and other drinks like soda pop were kept in the basement to keep them cold and fresh because there was no refrigeration.

If a miner played the piano or another musical instrument, it gave him the opportunity to earn extra income. Tips and free drinks were readily given to those minders with musical talent.

The saloonkeeper is the boss and to get on his good side, so he’ll let you into the saloon, you’ll have to say, “Down with the Lowlanders” when you go through the door. That way he will know that you support the hydraulic miners, and not those pesky farmers downstream.

This building was reconstructed from the ground up in 1974. That is why we can have food and beverages in the building. It is not the original building and therefore it does not have historical status.

*******

(Many times the students skip this building during the Scavenger Hunt then meet in the saloon immediately afterwards to enjoy snacks and drinks, play music or have a skit. Adult chaperones are often dressed in period costumes and in character, i.e. saloon girl dress with boa scarf, a gold panner, a musician playing the old piano wearing a black armband.)
North Bloomfield Scavenger Hunt Buildings

McKillican and Mobley General Store

This is the original General Store built in 1856. McKillican and Mobley ran the store in the 1870s. They called it a “general store” because it had everything that you might need for the day to day living in North Bloomfield. There were many other “specialty stores” such as a bakery, shoe store, hat store, and fruit market but almost everyone came to this store once a day, maybe because this was also the post office for North Bloomfield.

1. This building never had electricity and so sunlight from the front windows made it possible to see what was for sale. Imagine how dark it gets on a cloudy day or late in the afternoon. What would they use to help out?
   ____   ____   ____   ____   ____   ____   ____   ____

2. In the old days stores did not have racks and racks of clothes to sell because the stores had limited space and transportation was difficult. The general store sold bulk material so you could sew your own clothes. If you wanted to have someone make clothes for you, you could order a suit with the help of one of these books. What is it and where?
   ____   ____   ____   ____   ____   ____   ____   ____   (____)

3. Saturday was bath night whether you needed one or not. Water would be heated on the stove and then poured into a large tub. If there were a lot of kids in your family you might be lucky and have the first bath. The last bather would only get lukewarm and less than clean water. Where is the bathtub?
   __________________________________________________________

4. Gold miners started this town and kept it going. They bought supplies in this store. They used a piece of equipment that was a box with a plunger/handle. Wires were connected from the box to a dynamite charge. When you pushed on the handle the dynamite would explode. There are two in the store. Where and what are they?
   ____   ____   ____   ____   ____   ____   ____   ____   ____

5. In the old days many herbal remedies were used. Sometimes the recipe of different plant materials would be changed and the medicine would become a beverage. There is one of these in the store. Where and what is it?
   ____   ____   ____   ____   ____   ____   ____   ____

6. Most everything that was for sale in the store was on display on the shelves or hanging from the ceiling. This was not a help yourself store like we have today. In the old days you would get personal service from the storekeeper who would have to gather your purchases for you. What would he use to make his job easier and where are two of them?
   ____   ____   ____   ____   ____   ____   ____   ____   ____   (____)   ____   ____   ____
North Bloomfield Scavenger Hunt Buildings

Ostrom Livery Stable

The students visit the stable and play two games.
(No word scrabbles.)

Over 130 years ago, horses were used to get around and paved roads were almost non-existent. You couldn’t just park your horse when you came into town, like you do a car. You had to leave your horse at the livery stable where the stable owner would take care of it. If you needed a freight wagon, fancy buggy, or another horse you could rent one here. Every town had at least one livery stable. It was a gas station, Hertz Rent-A-Car, U Haul rental, and Motel 6 all rolled into one.

If you couldn’t afford to stay in one of the hotels while you were prospecting in the area, you could spend the night up in the hayloft above the stable.

Can you find the old-fashioned hay bailer? Look at all the ropes, pulleys and levers. How was the hay put in? How was the bail compacted and tied?

Games:

“Stepping Stones”

Traveling by horse and wagon was slow, difficult and sometimes very dangerous. Crossing a small river could be a giant task. River crossing required a lot of teamwork and communication to make sure everyone was safe. Work together with your team to cross the “river” safely. Pretend the area between the stable doors and the hitching post is a raging river. Use the “stepping stones” to safely navigate the swift currents. Good luck!

“Giant Striders”

Driving a team of horses or mules wasn’t easy, especially when you had several animals to control. Your animals had to work as a team to move forward, back and make turns without any problems. Use the “Giant Striders” to simulate a team of horses (students) pulling a wagon. The driver had to communicate to his animals what to do and when to do it, so straddle the striders with a rope in each hand. The “driver” (usually in the rear) communicates what he or she wants the team to do; step right then left to move forward. Have the “driver” asks his/her team to move around something or back up. Not as easy as you think!
North Bloomfield Scavenger Hunt Buildings

Skidmore House

This house was built in 1862 for Rush Dix Skidmore. Mr. Skidmore was a wealthy businessman and popular in the community. (Notice how big his yard is compared to the other yards in town.) He came from the east coast and settled in north Bloomfield in 1857.

This style house is known as a “railroad flat.” There is a central hallway with rooms off to either side just like a railroad car. This was a popular style where Skidmore used to live.

Although the house is two stories tall, you will be working on the first floor. There are two bedrooms upstairs but the stairway is steep and too dangerous. Also there have been rumors that the top floor is haunted, although we have never seen anything up there except bats.

1. Wood fires were used to heat the house. Firewood was constantly being collected, chopped stacked and brought in to the house to be burned. The wood burning stoves would be cleaned carefully and often to prevent hot ashes from getting out onto the wood floor. What and where is the special container for this job?

   ____   ____   ____            ____   ____   ____

2. There was no electricity for this house. To see at night you had to have a candle or oil lamp everywhere you went. There was no refrigerator but yet you had to keep some foods cold to prevent spoilage. What did they use and where is this piece of furniture?

   ____   ____   ____   ____   ____   ____   ____   ____

3. No indoor water pipes meant that bathrooms were kept outside. In the winter or at night, when a trip to the outhouse was difficult, you would use a special pot in your bedroom. What is it called and where is it?

   ____   ____   ____   ____   ____   ____   ____   ____   ____   ____

4. Old building codes were much different than today. (Look at the thin walls inside the house.) Small animals were sometimes able to sneak through little openings to find warmth and food inside a house. What would you use to control these unwanted visitors and where is it found?

   ____   ____   ____   ____   ____   ____   ____   ____   ____   ____

5. Through the years, ideas in house decoration have changed. Mr. Skidmore would probably see your house as being very strange. In this house is a picture that actually a sculpture made from human hair. Where is it?

   ___________________________________________   ___________________________________________
North Bloomfield Scavenger Hunt Buildings

Smith – Knotwell Drug Store

This is the “Smith – Knotwell Drug Store.” In 1872, Adrian A. Smith lived in a little house on this corner lot. He was a schoolteacher. In 1876, he decided to open a drug store business.

He built a larger two-story building with a store and living space underneath a meeting hall. Besides medicine, he also sold fancy soaps, perfumes, toys, cigars, fancy plates and dishes almost like a modern Long’s Drug Store. John Knotwell became a partner in the business when he married Nettie Smith, Adrian Smith’s daughter, in 1881. This building is actually a reconstruction of the original building, which fell down before the state park was developed.

1. In a large jar you will see something that looks like candy. These are crystals that people stored with their clothes to keep the bugs away. They really smell and that is why we keep the lid on. What are they called and where are they?
   ______ ______ ______ ______

2. When this store was operating in the 1870s, paper bags were not yet invented. When you bought something, the store clerk would wrap the item in wrapping paper (or even old newspaper) and tie it with a string. Every store had one of these on the counter and this one is shaped like a bell. What is it and where is it found?
   ______ ______ (____) ______ ______ ______ ______ ______ ______

3. Today you can buy a toy called a stereo viewer or view master. By looking through the eyepieces you can see a picture in three dimensions (3-D) that looks almost real. In the 1880s everybody had one at home (like our televisions) with pictures from around the world. Schools would teach kids about far-away places with these. What is it and where?
   ______ ______ ______ ______ ______ ______ ______ ______ ______ ______

4. One of the medicines is called “Dr. Seth Arnold’s Cough Killer.” This cough medicine contained very strong drugs that are illegal nowadays. Most of the medicines on display either did not work or worked too well and are no longer sold. Where is “Dr. Arnold’s Cough Killer?”
   ______ ______ ______ ______ ______ ______ ______ ______ ______ ______

5. There are two of these tools found in the drug store. Although they look slightly different, they both look like a bowl with a separate small club. Dried plants or chemicals were poured into the bowl and then the club was used to grind them up. The Native Americans used this type of tool to grind acorns. What is it and locate two of them?
   ______ ______ ______ ______ ______ ______ ______ ______ ______ ______

6. People worked very hard the old days because much of the work was done by hand. They bought a lot of medicine that took care of sprains, sore muscles, bruises, and body aches. Look as some of the bottle labels to see if you can find this type of medicine. One company that still makes this medicine is called “Sloanes.” What type of medicine is this & where is this bottle?
   ______ ______ ______ ______ ______ ______ ______ ______ ______ ______
North Bloomfield Scavenger Hunt Answers

Glossary (possible answers)

<table>
<thead>
<tr>
<th>Ash Box</th>
<th>Moth Balls</th>
</tr>
</thead>
<tbody>
<tr>
<td>Baskets</td>
<td>Mouse Trap</td>
</tr>
<tr>
<td>Bible</td>
<td>Oil Lamp</td>
</tr>
<tr>
<td>Candle Holder</td>
<td>Resume</td>
</tr>
<tr>
<td>Catalogue</td>
<td>Chamber Pot</td>
</tr>
<tr>
<td>Chamber Pot</td>
<td>Root Beer</td>
</tr>
<tr>
<td>Coffee Grinder</td>
<td>Sluice</td>
</tr>
<tr>
<td>Cough Syrup</td>
<td>Snow Shoes</td>
</tr>
<tr>
<td>Detonator</td>
<td>Stereoscope</td>
</tr>
<tr>
<td>Eye Glasses</td>
<td>String Holder</td>
</tr>
<tr>
<td>Gold Pan</td>
<td>Telephone Book</td>
</tr>
<tr>
<td>Ice Box</td>
<td>Toaster</td>
</tr>
<tr>
<td>Liniment</td>
<td>Vacuum</td>
</tr>
<tr>
<td>Mortar and Pestle</td>
<td>Cleaner</td>
</tr>
</tbody>
</table>

Word Scrabble Answer: “**EUREKA**”

<table>
<thead>
<tr>
<th>Question</th>
<th></th>
<th>Word</th>
</tr>
</thead>
<tbody>
<tr>
<td>Skidmore House</td>
<td>-</td>
<td>#2, <strong>ICE</strong> <strong>BOX</strong></td>
</tr>
<tr>
<td>Cummins Hall/Museum</td>
<td>-</td>
<td>#1, <strong>RESU</strong> <strong>ME</strong></td>
</tr>
<tr>
<td>Smith-Knotwell Drug Store</td>
<td>-</td>
<td>#2, <strong>STRING</strong> <strong>HOLDER</strong></td>
</tr>
<tr>
<td>McKillican &amp; Mobley Store</td>
<td>-</td>
<td>#2, <strong>CATALOGUE</strong> <strong>E</strong></td>
</tr>
<tr>
<td>Cummins Hall/Museum</td>
<td>-</td>
<td>#5, <strong>BASKETS</strong></td>
</tr>
<tr>
<td>McKillican &amp; Mobley Store</td>
<td>-</td>
<td>#6, <strong>ROLLING</strong> <strong>LADDER</strong></td>
</tr>
</tbody>
</table>