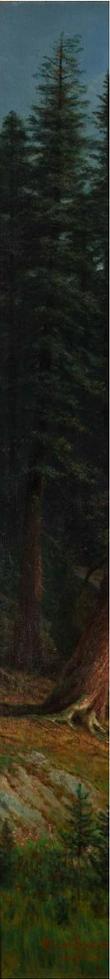

Mining the West: 4th Grade Activity Packet



PRESENTED BY

**Golden History Museum & Park
American Museum of Western Art**



AMERICAN MUSEUM OF WESTERN ART

THE ANSCHUTZ COLLECTION

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The Colorado Gold Rush

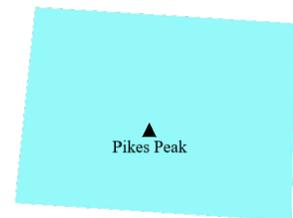
Pikes Peak or Bust!



Most people think of California when they hear the words “gold rush” but Colorado had a major role in the American gold boom of the 1800s. Also known as the Pike’s Peak Gold Rush, an estimated 100,000 gold seekers came to the Colorado Territory to strike it rich.

As the hysteria from the California Gold Rush subsided, scouting parties began to move through the Rocky Mountains to find the next gold deposit. Using connections to indigenous tribes and their deep knowledge of the land, one of the first discoveries happened in 1858 at the present-day Confluence Park where the South Platte and Cherry Creek rivers meet. From there, prospectors moved deeper into the Rocky Mountains and word spread across the nation.

Beginning in 1859, these “Fifty-Niners” used the phrase, “Pike’s Peak or Bust!” as they moved west across the plains in a frenzy to make their fortune. This influx of motivated immigrants to the region created many of Colorado’s mountain towns, including Alma, Fairplay and Breckenridge. As a consequence, Denver, Golden, and Boulder grew rapidly as supply towns to the surrounding mines. While this mining history is still present in many of Colorado’s towns, there are a number of ghost towns whose only legacy is the gold rush.



Colorado produced 150,000 ounces of gold in 1861 and 225,000 ounces in 1862. Congress established the Denver Mint for gold coin production (and later silver coins). The Denver Mint still operates, producing coins for circulation and commemoration.

Art Break: Dean Cornwell



Goldrush, Dean Cornwell, 1926

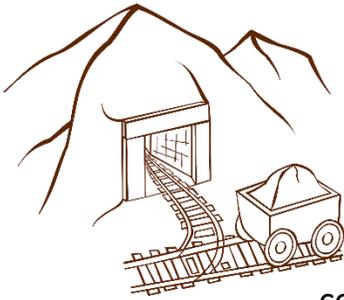
These two paintings by Dean Cornwell show the Forty-Niners, the many people that headed to California in 1849 in search of gold. Looking at these paintings can you imagine how busy and crowded the boom towns (towns where the population and economic growth happens very quickly) might have been? Cornwell was born in Kentucky and often traveled to gain inspiration for his paintings and illustrations. He worked in multiple steps, first sketching the image on a small notecard-sized paper, then hiring living models for life-size model studies, next he would create multiple smaller oil studies of the piece, and finally would put the image on its final canvas. While Cornwell was active as an illustrator many years after the Gold Rush, he still tried to capture the chaotic rush that happened when gold was discovered out west in these two paintings.



Days of the Forty-Niners, Dean Cornwell, 1926

Kinds of Mining

There are many different types of mining, but the two most common kinds in Colorado are gold panning and hard rock mining. Gold panning is when water is used to remove lighter **sediment** and the heavier gold sinks to the bottom and then can be scooped out. Often, miners would also use a **sluice box** to help them separate the gold from the sediment. This kind of mining uses very cheap and easily available tools, but it is **tedious** and you can spend a lot of time panning, and find very little (if any!) gold.



Hard rock mining requires a lot of equipment and a lot of labor, and that means you need someone who is willing to invest in your mine. The **investor** would be responsible for buying the equipment and hiring the workers. Hard rock mining is when a hole was drilled into rock using a hammer and drill bit and then a stick of **dynamite** was inserted to blow free rocks that contained **ore**. The large amounts of ore found made hard rock mining very **profitable**. But, hard rock mining was also extremely dangerous. Thomas Pearce, whose cabin is at the Golden History Museum & Park, was a hard rock and clay miner. While on the job he accidentally drilled through a stick of unexploded dynamite. Luckily, he survived, but he injured his back and was forced to quit mining.

Vocabulary

Sediment: The small pieces of rock and other materials that can be found at the bottom of rivers, lakes and streams.

Sluice Box: A long box that has gates or other obstacles so that water can flow through, but larger particles are trapped.

Tedious: long, slow or dull.

Investor: A person or organization that puts money into a project or idea, hoping to make a profit.

Dynamite: Explosive material that is often molded into sticks.

Ore: A mineral with metal inside of it that can be mined.

Profitable: A project or business that makes more money than it spends.

Can you find the vocab words in the word search below?

Word Search

U G P C O D G J S O
Y I R A W Y O S L I
B N O F D N C E U Y
X V F T Z A E D I J
J E I E Y M J I C O
M S T D D I J M E R
Y T A I P T O E B E
L O B O N E Y N O S
X R L U I R A T X P
S T E S M R O L I K

Art Break: Ernest Lawson



Abandoned Mine, Cripple Creek, Ernest Lawson, 1927

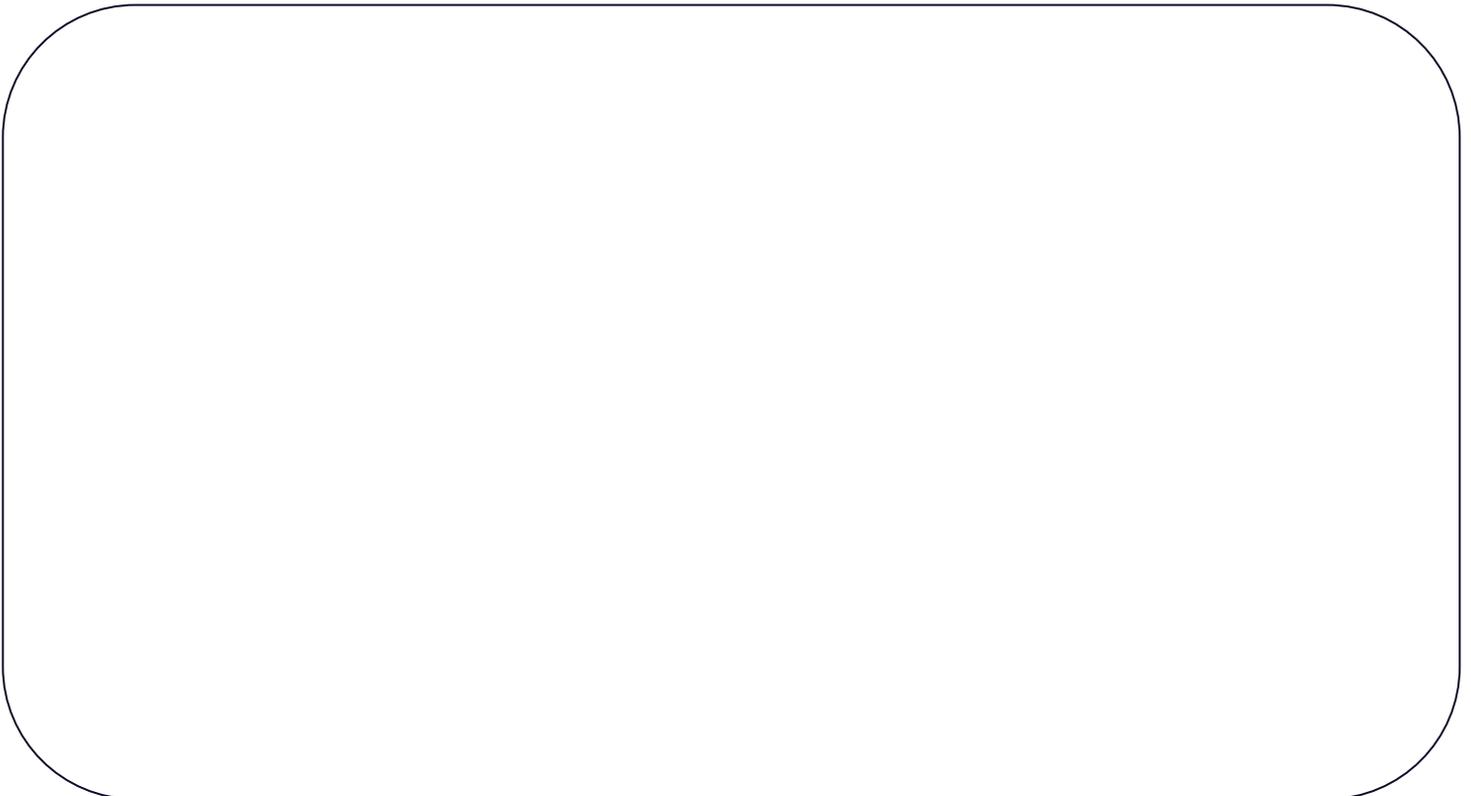
This painting by Ernest Lawson depicts an abandoned mine near Cripple Creek, Colorado. Gold was found in Cripple Creek in 1890, 31 years after the Pikes Peak Gold Rush. Lawson was born in Nova Scotia and moved to Kansas City, Missouri as a teenager. Art held an interest within Lawson from the start and he attended the Art Students League in New York City before traveling to study art in Paris—where he would find his signature, loose-brushstroke style. Later in Lawson’s life he would accept a position to teach for a few summers at the Broadmoor Art Academy in Colorado Springs. During his time living and teaching in Colorado Springs, Lawson created multiple paintings of the surrounding area, including this painting of Cripple Creek. Have you been to Colorado Springs or the Pikes Peak area? Do you think Lawson’s painting of Cripple Creek looks familiar?

Superstitions in the Mines

Many miners worked in dangerous conditions all day, and they developed superstitions that they believed would help keep them safe. Below are some of those beliefs:

- It was bad luck for a woman to enter a mine
- If a man's work clothes fell off their hook, that man was going to fall and injure himself
- Have you ever heard the phrase "canary in a coal mine?" The phrase refers to miners taking caged canaries into the mines with them to warn of toxic gases. Once the canary stopped singing and sometimes died, coal miners would know it was no longer safe to be in the mine and they should get out before they were killed.
- They believed that small ghosts, called **Tommyknockers**, lived in the mines. They were about two feet tall, had big heads, wrinkled faces and were supposedly the ghost of miners who had died in mining accidents. The tommyknockers would knock on the walls of a mine shaft to warn the miners that the shaft was about to collapse.

Can you draw your very own tommyknocker below?



Art Break: Albertus Del Orient Browere

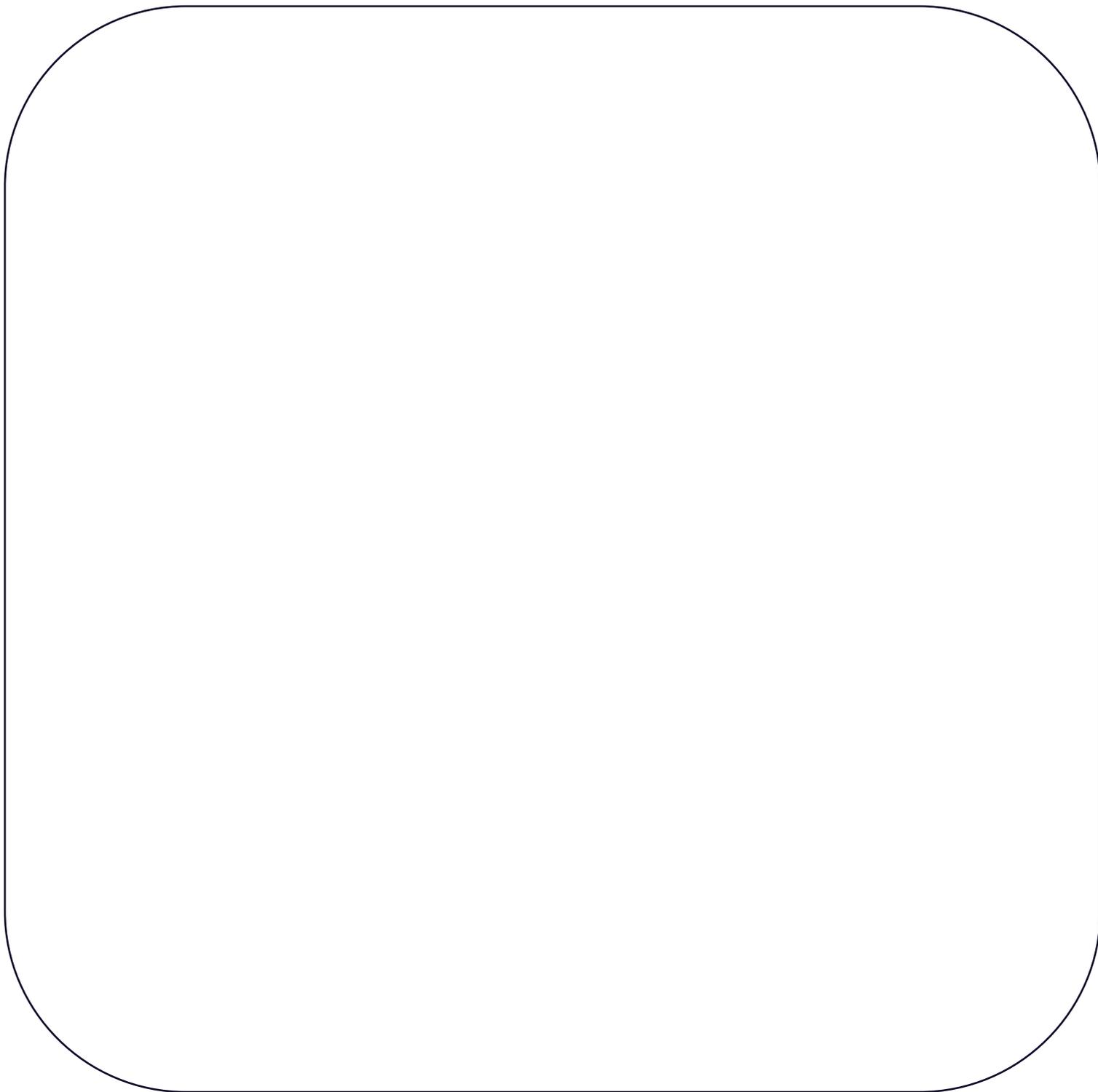
During the California and Pikes Peak gold rushes, hundreds of thousands of people headed west hoping to strike gold. Women, children, old, and young alike headed west, including artists like Albertus Del Orient Browere. Browere was born in New York but made his first trip west to CA in 1852 in search of gold. He was unsuccessful in his search but while he was out there he became inspired to paint images of mining life. This piece was painted in 1861, 9 years after Browere's first trip to CA to mine for gold. He liked to include himself in his paintings wearing a red shirt, which person in a red shirt do you think Browere is?

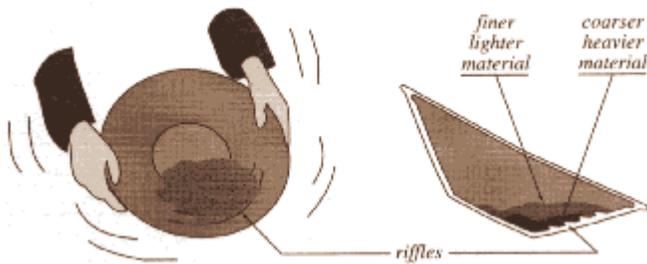


Goldminers, Albertus del Orient Browere, c. 1861

Heading West: Drawing Activity

Many people and artists came out west in search of gold and documented what they saw. Think about what would make you want to head out west and draw or write out in the space below what it would be and how you would travel to get it.





Science - How does panning for gold work?

Gold panning is the process of separating particles of different weights. In this case, gold versus gravel and soil in water. By using a specific motion that combines shaking and swirling the pan in a circular motion, heavy particles (gold) settle to the bottom while lighter material (gravel and soil) are brought to the surface. The surface material can be drained away while the remaining sediment can be dried and separated to reveal any gold.

Activity - How to Pan for Gold!



Materials:

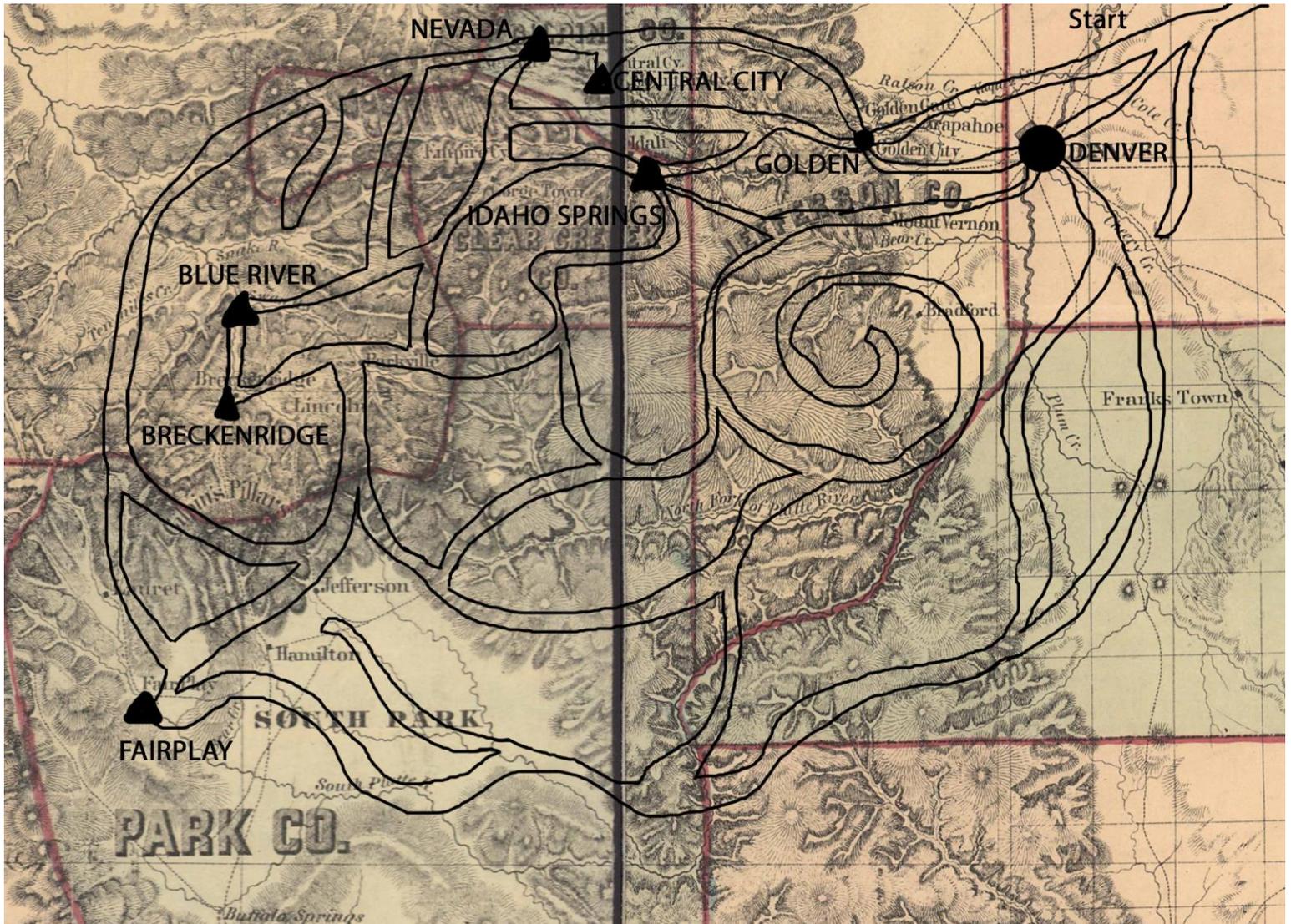
Plate or shallow bowl
Sediment
Water

Instructions:

1. Use your pan to pick up sediment and water.
2. Shake the pan gently to help the sediment separate and then dip the pan in the water repeatedly to remove the lighter sediment from the pan. The heavier sediment should get trapped in the edges of your pan.
3. Repeat this until there is only a little sediment left in the pan and then manually search for gold.

Find Your Way to Gold!

The Fifty-Niners used maps to guide themselves west towards the gold. Pretend you are a Fifty-Niner who just arrived in Colorado in search of gold. See if you can find your way to one of the mining towns (marked with a ▲) where gold has been found on the maze below. Remember to stop in Denver or Golden **first** (marked with a ●) to gather your supplies!



Map Making Activity



Maps are created to capture the unique geography of the region, to show the best overland or water routes to get from point to point, or to show the distribution of natural and man-made resources. They can also illustrate important historic, political, cultural, or social sites. Using the paintings in this work-packet as well as information on the Colorado gold rush, create your own map of Colorado to show the geography of the state and different resources.

Think about the Fifty-Niners and what their first impressions of Colorado might have been as well as what type of things they might look for on a map (supply towns, gold mines, rivers, mountains, etc.) Pretend you are a cartographer (someone who creates maps) coming to Colorado for the first time to find gold, create your own map of the state using found objects around the house and classroom. Add characteristics of the different regions (mountains vs. the plains, rivers, lakes, etc.) and add man-made resources that will help you in your search for gold (gold mines, supply towns, places to camp/sleep at night, etc.) You can also draw/form the route you might take from the plains to the mountains to find gold.

Suggested Materials (per map):

- CO Base rectangle (cardboard, foam core, etc.)
- Fabric swatches of different textures and colors, pieces of old clothing
- Beads, dried beans or lentils, noodles
- Ribbons, thread
- Egg-crate sections
- Cotton balls
- Greenery
- Pom-poms
- Glue or tape
- Markers, crayons, colored pencils