

MINING

UTAH'S HERITAGE



WORKBOOK

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This project was created by the Division of Oil, Gas and Mining's
Abandoned Mine Reclamation Program

WELCOME!

Welcome, young prospectors, to the marvelous world beneath your feet! I'm Jake, your trusty guide through the fascinating world of mining in Utah. As we embark on this adventure together, you'll learn about the rich history of mining in our state and how to stay safe when exploring outdoors.

Mining is very important and makes our lives better. Mining gives us the materials we need for things we use every day. Metals like copper and gold are used to make electronics. Other minerals are made into building materials for homes, schools, roads, and bridges. Without mining, we wouldn't have many things that make our lives easier and more fun.

Mining also provides jobs for many people in Utah. Miners work hard to dig up minerals from underground. Other people work in businesses that help mining, like companies that make mining equipment or trucks that carry minerals. These jobs help families earn money to buy food, clothes, and homes. Because of mining, many people have good jobs that help them care for their families.

Utah has incredible places to discover, from the tall Wasatch Mountains to the wide red-rock deserts. Hidden treasures are waiting for us! So, put on your hard hats and grab your pickaxes because we're going on a journey like no other. Let's dive into Utah's mining history and find out all the cool things it has to offer.



THINGS IN OUR DAILY LIVES

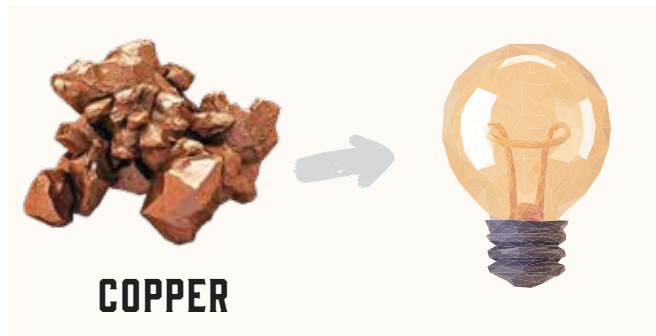
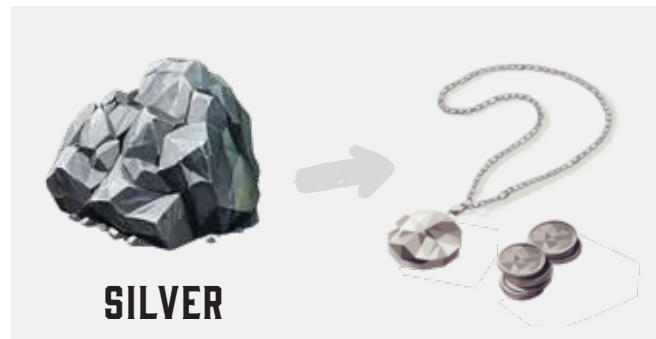
THANKS TO MINING

Before we start our mining adventure, let's take a moment to see how mining helps us every day. From the shiny screens of our smartphones to the roofs over our heads, mining is important for crafting almost everything around us.

Silver (formerly mined in Park City, Utah) is used to make electronics, medicine, and solar energy. Copper from the Kennecott Bingham Canyon Mine helps carry electricity to our homes and schools. Even salt (a mineral known as sodium chloride), which makes our food taste great, comes from the Great Salt Lake.

Minerals help make many things like toothpaste, lightbulbs, building materials, cell phones, video game consoles, computers, bicycles, and skateboards. Coal, Utah's state rock, is burned to produce almost half of the electricity we use.

As we explore Utah's mining history, let's remember how these minerals shape our world and provide the things we need.



CROSSWORD PUZZLE

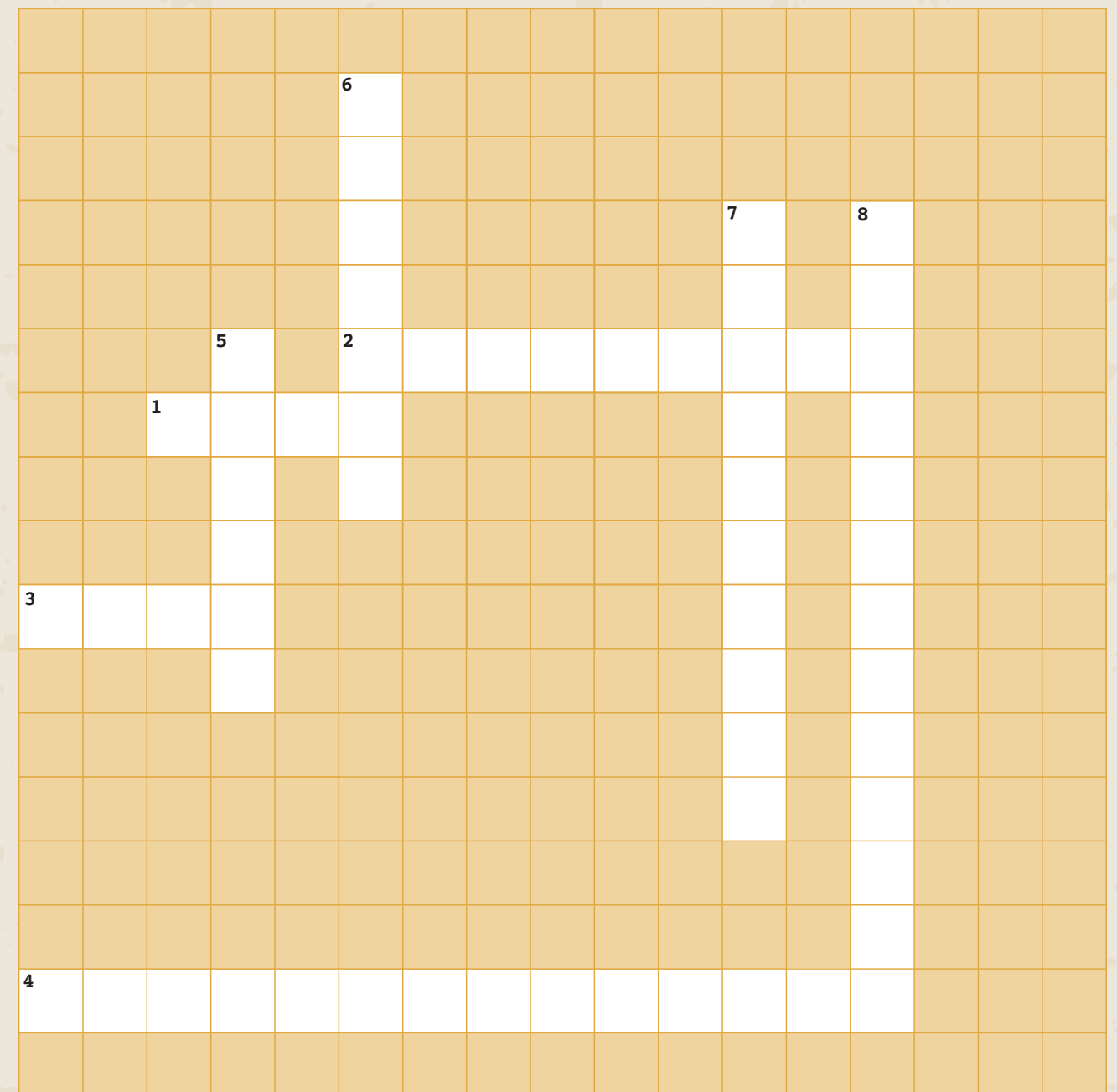
Read the clues to identify words that fit the grid, filling in the letters in the corresponding white boxes.

ACROSS

- 1 Utah's state rock, burned for energy
- 2 Device we use to communicate and play games
- 3 A place where miners dig for minerals
- 4 Another name for salt

DOWN

- 5 Reddish metal that carries electricity
- 6 A two-wheeled vehicle
- 7 Helps keep your teeth clean
- 8 The big salty lake in Utah



SCAN TO LEARN MORE



GEOLOGICAL HISTORY AND MINERAL FORMATION

Millions of years ago, the land we now call Utah looked very different. In the west, mountains formed when giant pieces of Earth's crust, called plates, collided. At the same time, eastern Utah was covered by a vast inland sea. Over time, swamps formed and were eventually buried, turning plant material into coal.

Then, the mountains in the west began to wear down while the plates continued to bump together, lifting the Uinta Mountains and the Colorado Plateau.

Later, the crust in western Utah started to stretch apart, allowing magma from deep within the Earth to rise close to the surface, sometimes creating volcanoes. Next to these underground magma chambers, valuable metals like gold, silver, and copper were concentrated in mineral "belts."

All these changes—swamps, moving plates, and volcanoes—made Utah a place with many valuable resources, such as coal and precious metals, which we can still find today.



SCAN FOR VIDEO CONTENT FROM THE UTAH GEOLOGICAL SURVEY



WHERE UTAH'S MINERALS ARE FOUND



MINERALS

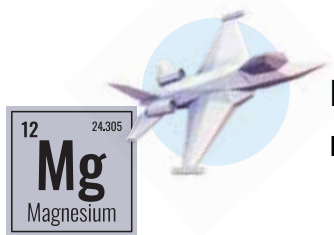
IN UTAH

Utah has many special minerals, and some of them can't be found anywhere else in the United States. There are over 80 different minerals mined in Utah. Let's check out a few of the most unique ones:



BERYLLIUM

Utah is the only place in the U.S. where beryllium is mined. It's a special metal that doesn't change size even when temperatures get very hot or very cold. This makes it perfect for making parts for computers, phones, car electronics, and even the Webb space telescope.



MAGNESIUM

Magnesium is used in things like airplanes and fireworks.



COPPER

This metal is used in electrical wires and pipes.



VANADIUM

Vanadium is added to steel to make it stronger.



UINTAITE

Also called by the trademarked name Gilsonite, uintaite is a rock made only of hydrogen and carbon. It is found nowhere in the U.S. except for Utah. Uintaite is added to asphalt for paving roads and to oil well drilling fluid because it helps make a seal that keeps liquids where they need to be. It is also used in paint, pipe coatings, and wood stains to help them stick to surfaces.

Utah mines other important minerals like lime for concrete, iron ore for steel, and gypsum for drywall. These materials help build and support our homes, schools, and roads.

Mining these minerals helps Utah by creating jobs and supporting our local economy. So mining is a big part of what makes Utah a great place to live and work.

WORD SCRAMBLE

WORD BANK

BERYLLIUM VANADIUM MAGNESIUM

The letters are all mixed up! Can you figure out what each word is supposed to be?

A S N G E U M I M

— — — — —

M R B L E U Y L I

— — — — —

D M A A N I V U

— — — — —

BONUS

Fill in the element symbol for each mineral

4 9.0122
— —
Beryllium

12 24.305
— —
Magnesium

29 63.546
— —
Copper

23 50.942
—
Vanadium

FOUNDATIONS OF MINING IN UTAH



NATIVE AMERICANS AND EARLY EXPLORERS

Native Americans were the original inhabitants of Utah. They used rocks and minerals to create tools, decorations, and other items that made their daily lives easier, more comfortable, and more meaningful. Unlike modern mining, which requires digging deep into the earth, Native Americans would collect rocks and minerals from the surface. This practice is now known as quarrying. Native Americans living in Utah today continue to honor and care for their land.

As we go on, we'll learn about the early explorers and settlers who came to Utah's rugged landscapes.



Have fun bringing these ancient pots to life with your imagination.



Some ways the first Utahns used rocks and minerals:



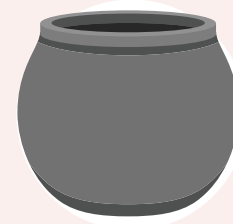
OBSIDIAN

Native Americans used obsidian, a shiny rock formed from cooled lava, to create sharp tools and arrowheads — sharper than modern surgical knives. Obsidian also held significant spiritual value. It can be found in the Black Rock Desert in Millard County, the West Desert near the Great Salt Lake, and Wildhorse Canyon in Beaver County. Millions of years ago, lava erupted from volcanoes in these regions, and that lava transformed into obsidian. The rock appears in various colors based on the minerals mixed with the lava before it solidified. Scientists can determine the origin of obsidian artifacts by examining these minerals.



OCHRE

Ochre is one of the first colorful materials humans ever used. It's made from clay, sand, and a mineral called iron oxide, which gives it colors like red, yellow, brown, and even purple. Native Americans dug up ochre in places like the San Rafael Swell in Emery County and southern Utah County. They crushed it into powder to use for body paint and ceremonial murals. Some of these murals can still be seen today.



GRAYWARE POTTERY

Between 900 and 1300 CE, a group known as the Fremont created a unique type of pottery called grayware. To produce durable pots and bowls, they added small pieces of rock into the clay, preventing it from shrinking and cracking. These small rock fragments are referred to as temper. The Fremont people used various rocks based on local availability, such as limestone near Dinosaur National Monument or quartzite and granite near the Great Salt Lake. One source from which Native Americans obtained clay for pottery is near the current Goshute Reservation in Utah and Nevada. This clay dries to an ashy, gray color.

GOLDEN AGE

OF MINING

MAJOR UTAH MINING FIGURES AND THEIR CONTRIBUTIONS



The golden age of Utah mining started after the first pioneers with the Church of Jesus Christ of Latter-day Saints arrived in 1847. They mined important minerals like iron, lead, and coal, which were needed to construct buildings, make tools, and heat their homes. Their hard work helped them create a strong and growing community.

In 1862, Colonel Patrick E. Connor arrived in Utah on a military assignment. He and his soldiers were the first in Utah to search for valuable metals to make money.

This started a mining boom that brought fortune and growth to our state. New towns popped up around the mines, and people came from all over to seek their own treasures.



THOMAS KEARNS

Thomas Kearns was born in Ontario, Canada, in 1862 and moved to Nebraska when he was young. In 1883, he went to Park City, Utah, where he became very rich by finding a lot of silver in the Silver King Mine. He married Jennie Judge, and they had three children together.

- Kearns also got involved in politics in Park City and later became a U.S. Senator representing Utah. He supported Theodore Roosevelt's efforts to protect nature. In 1901, Kearns and his friend David Keith bought the Salt Lake Tribune newspaper and started another newspaper called the Salt Lake Telegram.
- He died in 1918. Kearns and his family did a lot to help others. They built St. Ann's Orphanage and gave away their home, now where Utah's governor lives.



PATRICK E. CONNER

Patrick E. Connor was born in Ireland in 1820. When he was twelve, he moved to New York City, and by eighteen, he had joined the U.S. Army. After serving in Iowa, he tried business in New York, then headed to Texas and California, where he took on bandits and built roads. During the Civil War, he led troops in Utah, clashing with the Latter-day Saints and fighting Native American tribes. After the war, he became a mining entrepreneur in Utah and Nevada, earning the title "Father of Utah Mining."



DANIEL C. JACKLING

Daniel C. Jackling, known as "The Father of Open-Pit Mining," changed mining history with his new ideas. In 1903, Jackling bought the Bingham Canyon property in Utah, which had a lot of copper. Even though people didn't think it would make money and called his project "Jackling's Folly", he started the Utah Copper Company anyway.

- Jackling used new steam shovels to get copper ore out of the ground cheaply. He was the first to use these shovels in a U.S. copper mine. Jackling also built a big mill that used a new method called flotation to get the valuable copper out of the ore. He used railroads to move materials inexpensively.
- His work at the Bingham Canyon, Chino, and Ray mines made him famous as the "Father of the Porphyries" (also known as copper deposits), and he won many engineering awards for his ideas.



SCAN TO LEARN MORE

IMPACT OF COAL & RAILROADS

ON MINING

Coal was very important for Utah's growth. It helped power homes, factories, and trains. Coal fueled steam engines that carried people and goods, which helped Utah's economy grow. Coal mining also created jobs and brought people from all over the world to Utah. This helped build many of the communities we have today. Towns grew around the mines, and railroads were built to carry coal across the state and beyond. Even though there are fewer coal mines in Utah now, they still provide jobs and help power our state.

When the Latter-day Saints arrived in Utah, they searched for coal to heat their homes and cook food to conserve wood for constructing homes and other buildings. Utah's first successful coal mines began in 1859 near the town of Coalville, but most of the coal in Utah came from Sevier, Emery, and Carbon counties.

MAZE



Help the train carry coal from the mine to Salt Lake City—find the path through the maze!



SCAN TO
LEARN MORE



Historic Salt
Lake City

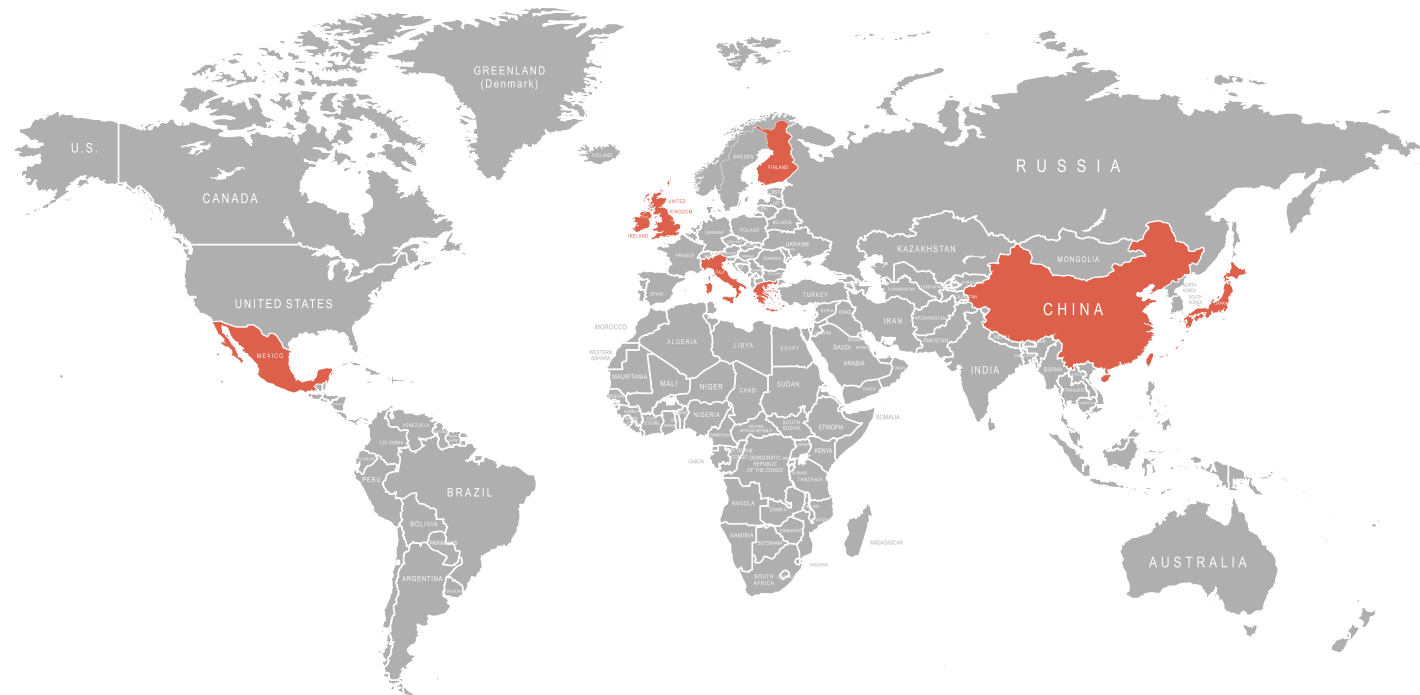


Historic
coal mine

The first coal mine in Carbon County, known as Winter Quarters, was established in 1877 by the Pleasant Valley Coal Company. To transport their coal to market more efficiently, the company constructed a railroad named the Utah and Pleasant Valley Railway. In 1882, the Denver and Rio Grande Western Railroad purchased the coal company and its railway. This railroad used coal to fuel its steam engines. Over the next 20 years, the railroad became the largest coal producer in Utah and opened new mines, such as the Castle Gate Mine in 1888 and the Sunnyside Mine in 1899.

The coal industry and railroads helped each other grow. Coal companies built rail lines from their mines to nearby towns to ship coal faster and easier. These railroads connected to big train lines like the Transcontinental Railroad, which was finished in 1869 when the famous Golden Spike was driven. This made it even easier to get their products to the people who needed them.

In the early 1900s, smaller companies started mining in Carbon County. They built towns called "coal camps" near their mines for the workers and their families. By 1930, there were 23 coal camps in Carbon County. The mines brought people from many countries, including England, Finland, Italy, Greece, Japan, Mexico, and China. Some worked in the mines, and others ran businesses in the towns. They celebrated together and shared their cultures, helping make Utah's communities more diverse.



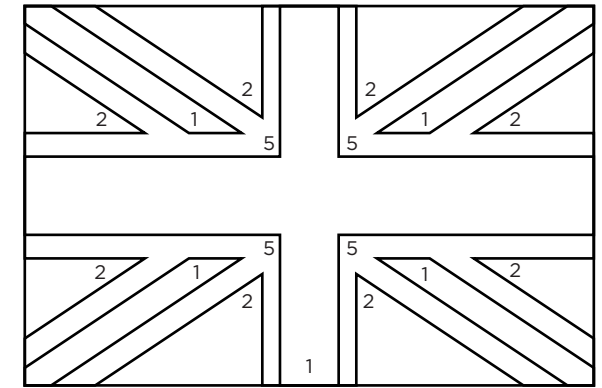
COLOR THE FLAG

BY NUMBER

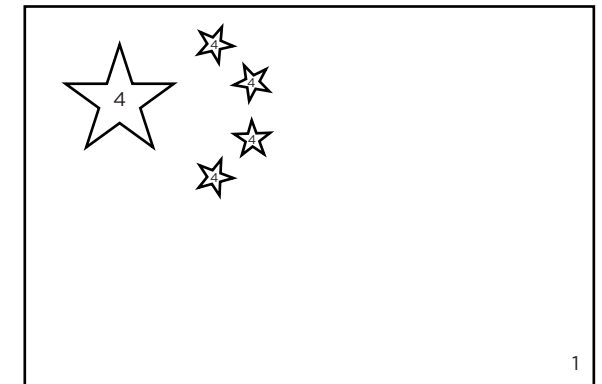


Follow the numbers to color each part of the flag using the key below—watch the flag appear as you go!

- 1 = red
- 2 = blue
- 3 = green
- 4 = yellow
- 5 = white

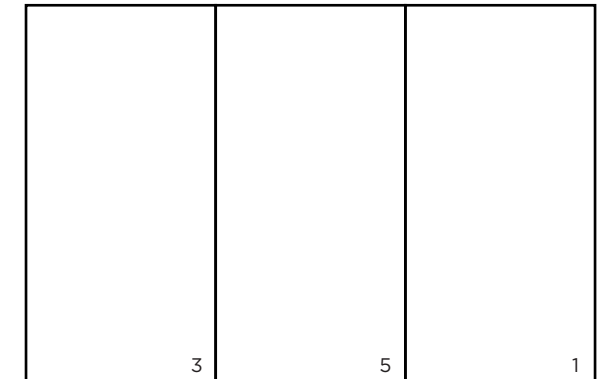
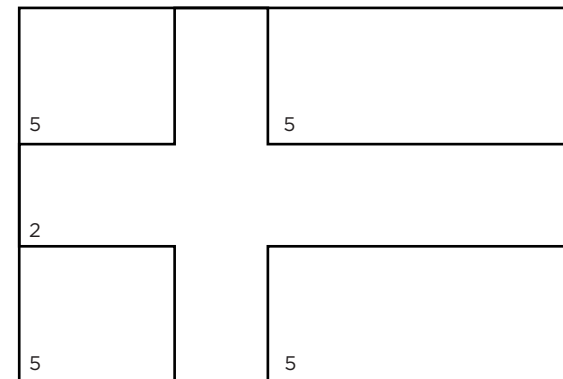


ENGLAND



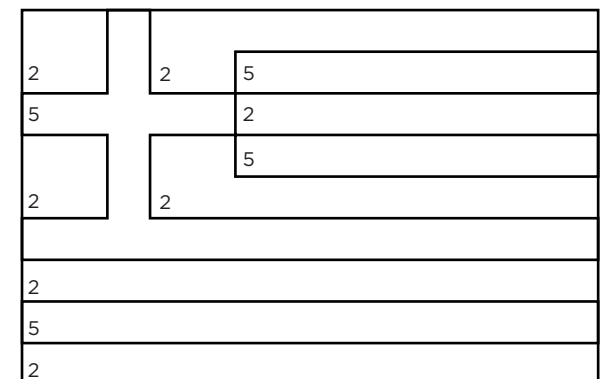
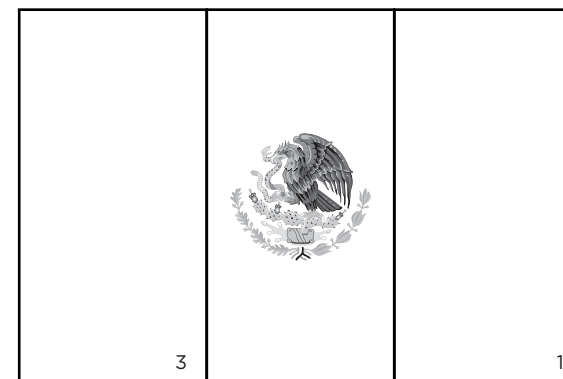
CHINA

FINLAND



ITALY

MEXICO



GREECE

HISTORICAL MINING TOWNS



+ MINING AND COMMUNITY DEVELOPMENT

As new mines opened and workers were needed, new towns and communities formed across Utah:

★ HELPER

- Helper began as a railroad town where extra "helper" engines were added to trains to help them climb the steep hill to Soldier Summit. That's where the town got its name! As Helper grew, it became known for its mix of different cultures. Many miners from southern and eastern Europe and Asia came to work in the nearby coal mines.
- In 1894, the railroad company advertised to bring people to the Utah Territory and places like Helper. The town grew and became more diverse thanks to its many mine and railroad workers.
- **Take a trip to the Helper Museum to learn more: carbon.utah.gov/attraction/western-mining-railroad-museum**


★ PARK CITY

- Park City's mining boom started in the 1860s with the discovery of silver, gold, and lead and the opening of the town's first silver mine. By 1892, the Silver King Mine had become one of the most famous silver mines in the world.
- **Take a trip to the Park City Museum to learn more: parkcityhistory.org/visit**



DISCOVER PARK CITY'S MINING HISTORY!

Visit the Park City Museum and explore the rich history of mining in Utah. Present this workbook at the front desk for free admission for up to 4 people!



PARK CITY MUSEUM

528 Main Street, Park City

★ CEDAR CITY

- Cedar City, an important town in Iron County, was settled on November 11, 1851, when a group of men from Parowan came to start an ironworks. The town was called Cedar City because the many juniper trees in the area were mistaken for cedar trees. That mistake has lasted over 150 years!
- **Take a trip to the Frontier Homestead State Park Museum to learn more: stateparks.utah.gov/parks/frontier-homestead**

★ EUREKA

- Originally named Ruby Hollow, the settlement became known as Eureka in 1870 when a post office was established. While initially home to over 5,000 people (a large city for the late 1800s), this gem of the Tintic Mining District now has about 500 residents and is recognized as one of Utah's ghost towns.
- **Take a trip to the Tintic Mining Museum to learn more: tintichistoricalsociety.org/Museum.html**

★ MOAB

- Moab was first settled in the 1870s and early 1880s by ranchers and farmers. For many years, it remained a small town, but everything changed in the 1950s when Charlie Steen discovered what would become the Mi Vida uranium mine nearby. At that time, the U.S. government wanted uranium for the military and was buying as much as people could find. Following Charlie's major discovery, many more people flocked to Moab to mine uranium.
- The uranium boom eventually slowed down, but today, Moab still has a population of over 5,000. Currently, the town's economy is primarily supported by visitors traveling to view the beautiful Arches and Canyonlands national parks.
- **Take a trip to the Moab Museum to learn more: moabmuseum.org**

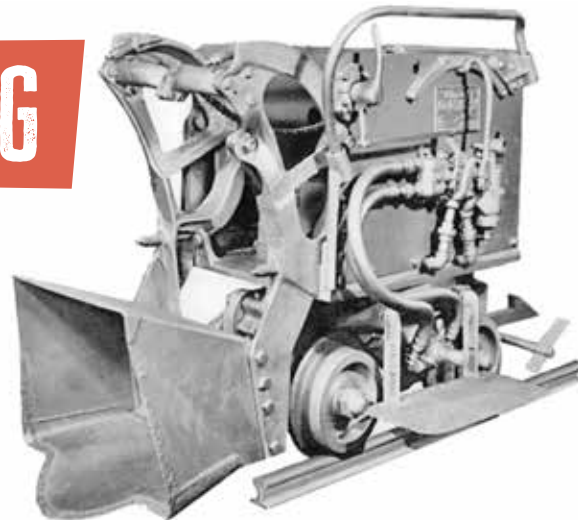
★ SILVER REEF

- Silver Reef is a special town because it's the only place in the world where mineable quantities of silver have been found in sandstone (silver is usually found in much harder rock). This made Silver Reef an exciting and busy town for a short time. Miners and settlers took advantage of this rare discovery, creating a bustling community. Although Silver Reef didn't last long, its unique geological features and vibrant history make it a fascinating part of mining history.
- **Take a trip to the Silver Reef Museum to learn more: silverreef.org**



SCAN TO LEARN MORE

DEVELOPMENT OF MINING PRACTICES



ROCKER SHOVEL LOADER

Since 1859, Utah's mining industry has undergone significant changes. With advancements in technology, mining has become safer for both the environment and the workers in the mines. Many innovative mining methods have been developed in Utah.

One important method that helped advance mining is called strip mining. This involves removing layers of soil and rock to reach the minerals underneath.

Another helpful invention is the steam shovel, a big machine that can move a lot of earth quickly. And we can't forget the Model 12B Rocker Shovel Loader, a machine invented right here in Utah that made it easier to load rocks into mine cars underground.

CREATORS OF THE ROCKER SHOVEL LOADER

John Finlay and Edwin Royle invented a machine that made mining easier. Edwin Royle saw that it was difficult for miners to shovel broken rocks out of the mine after blasting, so he designed a machine to do it faster and with less work. John Finlay liked the idea and helped build the machine using parts from an old car. They called it a mucking machine. It worked so well that it could fill a minecart in just over a minute. Their invention made mining much easier and faster for miners.

JOHN FINLAY



EDWIN ROYLE



WORD SEARCH

WORD LIST

- MINING
- UTAH
- SAFE
- STEAM SHOVEL
- MACHINE
- ROYLE
- FINLAY
- INVENTION
- ROCKS
- CAR
- MINERS
- BLASTING
- MINECART
- METALS
- MINERALS

Circle each and check off the words as you find them

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

MINING RECLAMATION

IN UTAH

Reclamation is like giving the land a makeover after mining is finished. It's important because it helps make the land safe and healthy for animals, plants, and people.

When miners are done digging for minerals, they work hard to restore the land. They close mine entrances, plant trees and grass, fix any streams or ponds that were moved, and make sure the soil can grow healthy plants.

Reclamation also prevents soil erosion and keeps water clean. This is important because we all need clean air and water to remain healthy. By caring for the land after mining, miners contribute to keeping Utah a beautiful place for everyone to enjoy.



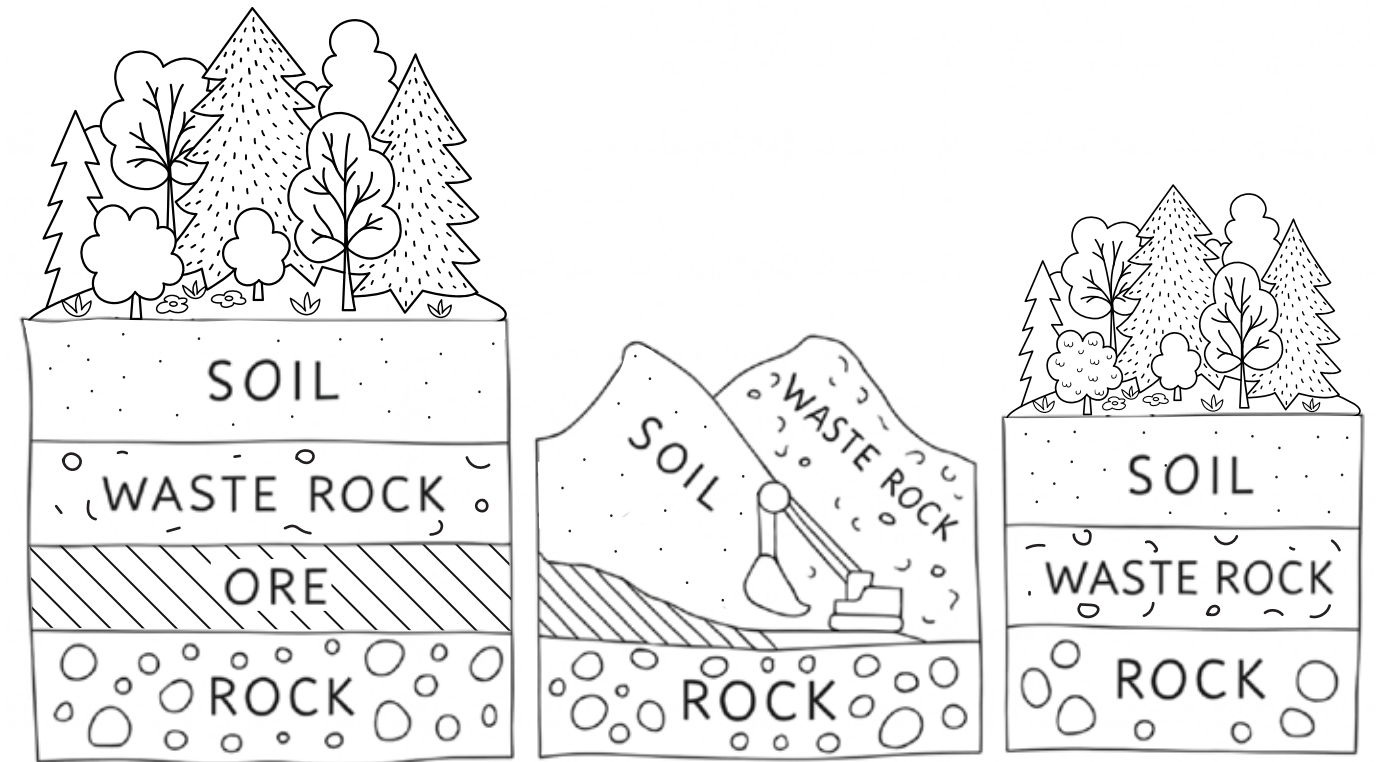
SCAN TO LEARN MORE ABOUT MINE RECLAMATION

In the past, miners weren't required to restore the land after they completed mining. In 1975, Utah passed a law known as the Mined Land Reclamation Act, which prohibited leaving mines abandoned. Then, in 1977, the U.S. created a law called the Surface Mining Control and Reclamation Act (SMCRA). Similar to Utah's law, it requires that coal miners rehabilitate the land after they stop mining. SMCRA also created a fund to help clean up old mines by taxing coal production.

Before these laws, miners would simply go to a new site once it became too hard, dangerous, or expensive to remove the minerals. They left behind open mines, old equipment, empty buildings, and even chemicals and explosives. Someone has to clean up these hazards.



Color each step of the mining reclamation process to show how land is restored after mining!



BEFORE

DURING

AFTER

Before

After



Byron Howard coal mine reclamation project -
Huntington Canyon, Emery County, Utah

CONNECT THE DOTS



OLD MINES ARE DANGEROUS FOR PEOPLE, BUT GREAT FOR BATS!

Did you know that 18 different types of bats live in Utah? All of these bats eat insects. Insects can harm crops, so the bats help protect our food and the farmers' work. In return, we can help protect the bats' homes.

Many of Utah's bats use abandoned mines to sleep during the day and to rest at night in between searches for food. Mother bats often have their babies in abandoned mines, where they care for them until they are old enough to fly.

The AMRP inspects old mines before closing them to determine if bats call them home. When bats are discovered in a mine, they are sealed with a special type of grate that prevents human entry while allowing the bats to continue using the mine.



Bat grate with flyaway



Bats roosting in mine

ABANDONED MINE SAFETY



THE ROLE OF UTAH'S ABANDONED MINE RECLAMATION PROGRAM

The Abandoned Mine Reclamation Program (AMRP), part of Utah's Division of Oil, Gas and Mining, was established in 1983 to protect the public from the dangers of abandoned mines. The AMRP identifies and learns about mine sites across the state. They focus on those that pose the greatest danger, especially near towns and roads.

Scientists, engineers, and environmental specialists work together to plan closures that balance safety, environmental protection, and historic preservation. Then the program constructs closures designed to keep people safe while also protecting animals and plants that live around the mines. Highly trained contractors work closely with AMRP staff, applying specialized expertise to eliminate hazards. Whenever possible, the buildings, machines, and other historic items used by the miners are left just as they were found, so people can still see what mining was like.

Since the program began, the AMRP has reduced Utah's estimated 17,000 abandoned mine openings to approximately 10,000. They are still working to make Utah a safer place for everyone and responsibly manage the state's mining legacy.



Check out our Abandoned Mine Reclamation team hard at work preparing a site and building a bat grate.

RECLAIM THIS MINE

Label the hazards below using the word bank

WORD BANK

- DYNAMITE
- BROKEN OR UNSAFE STRUCTURE
- ABANDONED MINE OPENING
- SMOKE FROM COAL FIRE
- COAL PILES
- DIRTY OR POLLUTED WATER
- ABANDONED TOOLS



STAY OUT
STAY ALIVE



Imagine this: You're having a great day enjoying Utah's beautiful outdoors. Maybe you're on a camping trip or cruising around in an off-highway vehicle. You're exploring a new place and find an old, abandoned mine.

It's natural to be curious. You might be thinking, "Who built this mine? How long has it been here?" And, of course, "I wonder what's inside."

That's perfectly normal. But heading into a mine to explore? That's just dangerous.



Abandoned mine entrance in central Utah



Old dynamite like this could still blow up

PICTURE

PUZZLE

Solve the picture puzzle and write the correct word in the blank space.

EXAMPLE



CAT

- T + R = C A R

CAT
CA_

CAR



+ S = _ _ _ _



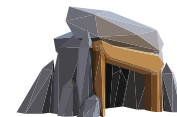
- ERA + PING = _ _ _ _ _



+



- TI = _ _ _ _ _



- E + ING = _ _ _ _ _



A + "1" + D = _ _ _ _ _



- D + THE = _ _ _ _ _



+



=

_ _ _ _ _



- A + D = _ _ _ _

MINE SAFETY REMINDERS

When you're planning to spend time outdoors, make sure you know the area and remember these tips:



Old Mines Are Dangerous: Abandoned mines can be unsafe. Even small movements can cause them to collapse, and you could get stuck or hurt quicker than you think.



It's Easy to Get Lost: Mines have long, twisty tunnels with no light. It's very easy to get lost inside.



No Cell Service in Mines: Cell phones don't work underground, so if you're stuck or hurt, you can't call for help.



Bad Air Can Be Deadly: Some mines don't have enough fresh air, and in certain areas, the air can be unsafe to breathe.



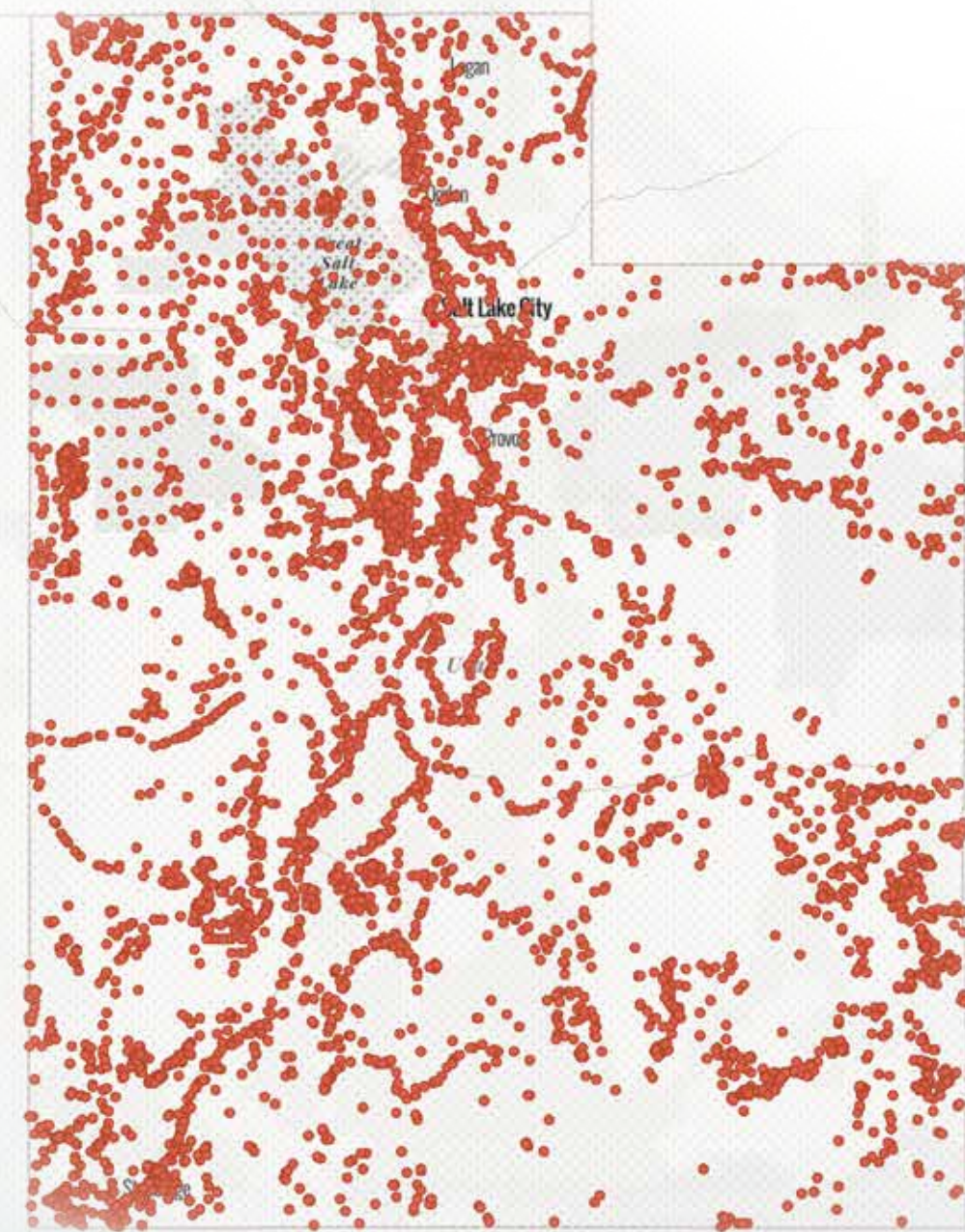
Other Dangers Inside: Mines might also have old explosives, dangerous chemicals, or even wild animals inside.



Stick to Trails: Be sure to stay on marked trails and within safe areas.



Travel in a Group: Always head out with a parent or guardian and tell someone back home where you're going and when you plan to be back.



● UTAH'S ABANDONED MINES



SCAN TO LEARN MORE
ABOUT THE STAY OUT,
STAY ALIVE PROGRAM

Abandoned mines can be full of hidden dangers -- things you can't see until it's too late. Some of these dangers could hurt or even kill you. Watch our video to learn more.



ANSWER KEY

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WORD SEARCH

ACROSS

- 1 *Utah's state rock, burned for energy* Coal
- 2 *Device we use to talk and play games* Cell Phone
- 3 *A place where miners dig for minerals* Mine
- 4 *Another name for salt* Sodium Chloride

DOWN

- 5 *Reddish metal that carries electricity* Copper
- 6 *A two-wheeled vehicle* Bicycle
- 7 *Helps keep your teeth clean* Toothpaste
- 8 *The big salty lake in Utah* Great Salt Lake

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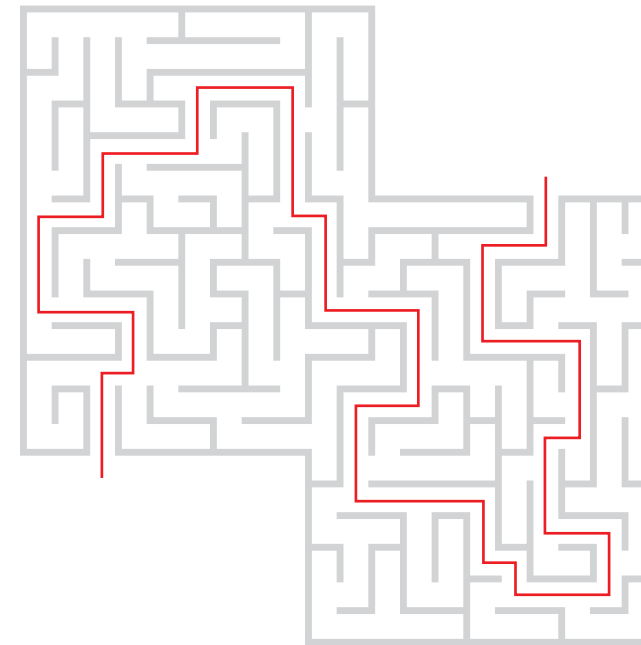
WORD SCRAMBLE

- A S N G E U M I M* MAGNESIUM
- M R B L E U Y L I* BERYLLIUM
- D M A A N I V U* VANADIUM

BONUS

- BERYLLIUM* Be
- MAGNESIUM* Mg
- COPPER* Cu
- VANADIUM* V

PAGE 15 MAZE



PAGE 21 WORD SEARCH

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

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RECLAIM THIS MINE

1. Smoke from coal fire
2. Abandoned mine opening
3. Broken or unsafe structure
4. Dynamite
5. Abandoned tools
6. Coal pile
7. Dirty or polluted water

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PICTURE PUZZLE

- Bat
- Camping
- Danger
- Mining
- Abandoned
- Breathe
- Hiking
- Gold



StayOutStayAlive.utah.gov



This project was created by the Division of Oil, Gas and Mining's
Abandoned Mine Reclamation Program