



Check us out on the web! <http://ogm.utah.gov/amr>
Our website contains more resources for teachers and current information about mineral production in Utah. To join our e-mail list and be notified of updates, please send an e-mail to amrinfo@utah.gov with "4th Grade Teachers" in the subject line. We will never sell or share your information, ever!

Follow us on:

 <http://www.facebook.com/utahoilgasandmining>

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About the Workbook

Mining Utah's Heritage, designed by AMR Program staff and the State Office of Education, satisfies portions of the social studies core curriculum for the fourth grade. It was updated in 2012 and both kids and teachers love it! Let us know what you think by writing to us at amrinfo@utah.gov

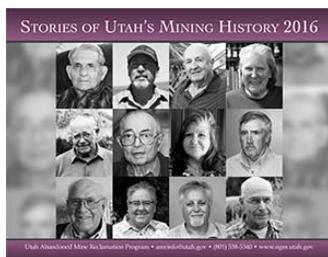
Stay Out and Stay Alive!

The abandoned mine safety DVD should be available in your school's media center, or access the video on YouTube in English (Stay Out and Stay Alive, Abandoned Mine Safety) and Spanish (Mantengase Afuera y Mantengase Vivo, SEGURIDAD EN MINAS ABANDONA). This video about abandoned mine hazards is a good way to introduce the workbook to your class! Don't miss the bonus material on the DVD and on our website under the "Education" tab. Look for:

- a PDF file of the workbook
- answer sheet and teacher newsletter
- student reader and teacher's guide published by the State of Colorado
- a script for a skit illustrating the dangers of abandoned mines.

2016 Calendar

You have already received a copy of the Abandoned Mine Reclamation Program's calendar for 2016. It highlights mines mentioned in twelve of our oral history interviews conducted from 2013-2015. They tell some great stories about Utah's mining history. Find video and transcripts of the interviews on our website at www.ogm.utah.gov/amr.



How is your day filled with minerals from Utah?

Do you use a computer, mobile phone, or car, or live in a house? Then you have used mined products today. For 153 years, Utah has been an important source of minerals. Think about this:

"If it wasn't grown, it was mined."

The average American uses about 40,000 pounds of minerals every year. Think about all the things you use everyday. Without rocks and minerals, most of these things could not exist. Here are some major minerals and what they are used for. For more details and information about minerals mined in Utah, including where they are found, please see the *Teacher's Resource* on our website.

Coal supplies the U.S. with about 39% of its electricity. In Utah, 76% of our electricity comes from coal. Because of coal use, Utah's electricity prices are 5th lowest in the nation.

Copper is an excellent electrical conductor and is used in wiring for TV's, stereos, computers, telephones, aircraft, satellites, and automobiles.

Silver and Gold are precious metals that are often found together. Both are used in dentistry, electronics, jewelry, coins, and in ingots as a store of value by banks throughout the world. Because of its malleability, (a pea-sized nugget can be flattened into a square sheet over 3 feet on a side!) gold is used in intricate electronic circuitry. Silver is also used in electronics because it is the most conductive metal known.

Beryllium is a metal with very light weight, very high strength, and excellent electrical conductivity. It maintains its shape at very high and very low temperatures. It is used in cell phones, airbags, x-ray machines, fighter jets, and even the Mars Rover! The only beryllium mine in the United States is located in Juab County, Utah.

Gemstones are also mined in Utah. Topaz is mined in the West Desert northwest of Delta. Also, the world's only source of red emeralds, also called red beryl, is located south of Milford.

Petroleum is used to make everything from gasoline to shopping bags to vitamins to the fabric for bicycle shorts.

Mining Is Now Safer and Better for the Environment

Mining can't occur without impacting the environment, and so great steps have been taken in recent decades to minimize its effects. Mines in the 19th through the mid-20th centuries caused pollution and deforestation in addition to being extremely hazardous workplaces. Thousands of these mines were never reclaimed and are still very dangerous. Today, mining operations must minimize adverse impacts and reclaim the site, eliminating all hazards, when mining ceases. Modern coal miners constantly monitor environmental conditions including wildlife, vegetation, and water and air quality. When mining ends, operators must seal mine entrances, reshape the ground, and plant new vegetation to restore the area to its original condition.

For information on field trips, websites, classroom presentations, and materials, contact:

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