

MINING UTAH'S HERITAGE WORKBOOK NEWS



Utah Abandoned Mine Reclamation Program

STAY OUT and STAY ALIVE!

January 2011

Click Here!

<http://ogm.utah.gov>

Check us out on the web!

Our website is updated often with 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!

You can now follow us on:



www.facebook.com/pages/Utah-Division-of-Oil-Gas-and-Mining/122708411120381



twitter.com/utahogm

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.

Stay Out and Stay Alive!

The abandoned mine safety DVD should be available in your school's media center. The film's look at abandoned mine hazards is a good way to introduce the workbook to your class! Don't miss the bonus material which includes Internet links to many additional educational resources on mining, mine reclamation, and Utah's mining heritage. The green workbook titled *Mining Utah's Heritage* is on the disc along with the answer sheet and teacher newsletter. Also look for a student reader and teacher's guide published by the State of Colorado, and a script for a skit illustrating the dangers of abandoned mines. You need Acrobat Reader (available free at <http://www.adobe.com>) to view the bonus materials. **Stay Out and Stay Alive** video is now viewable online (<http://linux1.ogm.utah.gov/WebStuff/wwwroot/amr/educationSOSA.html>)

Watch the website for updated information and new materials, and sign up to receive e-mail notification of updates and resources.

2011 Calendar

You have already received a copy of the Abandoned Mine Reclamation Program's calendar for 2011. It showcases artwork from the winners of our 4th grade poster contest. Thanks to all the teachers who helped their students participate! It was hard to choose winners from all the wonderful entries.



Watch the website or join our e-mail list for news about this year's contest.

How is your day filled with minerals from Utah?

Do you use a computer, cell phone, car or live in a house? Then you have used mined products today. For nearly 150 years, Utah has been an important source of minerals. A popular slogan used by the mining industry states: "If it wasn't grown, it was mined." This holds true for

everything made by the human race (try to think of an exception).

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 56% of its electricity. In Utah, almost all (82%) of our electricity comes from coal. Utah contributes over 24 million tons to the 1 billion tons of coal used for energy production in the U.S. each year.

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.

Uranium is a radioactive element used as fuel for nuclear power plants, medical equipment and for military applications. It is extremely dense, and after it's processed to deplete the radioactive components, it can be used to make armor-piercing munitions as well as armor plating.

Magnesium is often alloyed with aluminum to make soda and beer cans. Since it's strong and lightweight, it is also used to make automobile rims (mag wheels).

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 the fabric for bicycle shorts.

Mining Is Now Safer and Better for the Environment

Mining can't occur without impacting the environment, but 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, and videos, contact Stacy Shifflett, Utah Abandoned Mine Reclamation Program, Division of Oil, Gas and Mining, P.O. Box 145801, Salt Lake City, Utah 84114-5801. Phone 801-538-5383, E-mail: stacyberry@utah.gov