

THE WONDER OF COPPER

HAVE YOU EVER WONDERED...



...WHAT IS COPPER AND HOW IS IT FOUND?



EXPLORATION AND DISCOVERY
Copper is found in many minerals and used in many applications. An exploration team uses many techniques and new technologies to find out where copper is located. These geoscientists look for copper-bearing areas such as sulfide ores or oxide ores.

...HOW IS COPPER REMOVED FROM THE EARTH?

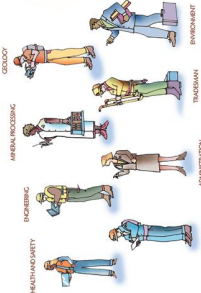


MINING METHODS
Techniques vary, but most use underground methods with shafts, haul trucks, and loaders to bring ore to the surface. Open-pit mining is used when a copper ore deposit lies deep beneath the surface of the hill or mountain to remove the copper-bearing rock.

...WHAT CAREERS ARE AVAILABLE IN THE COPPER INDUSTRY?



CAREERS IN MINING
The copper industry offers many exciting career opportunities for people with a high school and/or college education. The industry provides employees an opportunity to receive top-notch training and use advanced technology and help humanity by producing a critical resource we all need... copper!



...HOW DOES THE COPPER INDUSTRY CONTRIBUTE TO SUSTAINING OUR FUTURE?



SUSTAINING THE FUTURE

Many companies strive to be good stewards of the earth, creating products that are safe and sustainable. They are committed to contributing to local economies, providing a safe workplace for employees, protecting the environment and reclaiming the land.

REGULATED TAILINGS

...HOW DO YOU GET COPPER OUT OF A ROCK?



PROCESSING AND REFINING

Copper minerals must be separated from the rest of the rock before they can be used. Sulfide ores must be crushed and mixed with water and special chemicals to create slurry. When slurry is added to a large tank, the copper-bearing solution is separated from the waste rock. The slurry is then pumped to a concentrate area. The concentrate is then mixed with sulfuric acid solution that dissolves copper minerals. The copper-bearing solution flows to a place where the copper is plated into cathodes.

...HOW IS COPPER USED?



USES OF COPPER

Copper is one of the world's most important metals. It is used in many applications, including: electrical wiring, plumbing, radiators, motor appliances, cars, coins, computers, shock absorbers, telephones, and video games.

...HOW IS COPPER PROCESSED FOR LATER USE?



FABRICATING COPPER PRODUCTS

Most cathodes from the refining process are shipped to facilities to be made into copper rod for the wire and cable industries. Others are cast into wire rods, sheet, coils for other manufacturing purposes.