

Mineral Resources

Global demand is rising for mineral resources of all kinds, including metals, industrial minerals, and solid fuels like coal. Mineral resources are unequally distributed around the globe, reflecting the vast differences in geology of different parts of the Earth. Geoscientists play an essential role in locating mineral resources and designing processes for their safe extraction.

Frequently Asked Questions

How does 3D geologic mapping benefit society?

Alberta Geological Survey

Which states are the largest producers and consumers of coal?

American Geosciences Institute

What is biomining?

American Geosciences Institute

How do pyrite and pyrrhotite damage building foundations?

American Geosciences Institute

What minerals are used in fireworks?

American Geosciences Institute

Do you have a question that's not listed here? Search all FAQs

Explore Related Topics



Coal

Coal is a carbon-rich rock formed from plants that grew millions of years ago. Coal is a major source of electricity in the United States and the largest source of energy for electricity generation worldwide.



Critical Minerals

Critical minerals are those that are essential to the economy and whose supply may be disrupted. Critical minerals also tend to be those on which a country is heavily import-reliant, so the minerals that are deemed critical will vary from country to country. Demand for many of these minerals has skyrocketed in recent years with the spread of high-tech devices that use a wide variety of materials.



Industrial Minerals

Industrial minerals are non-metals including crushed rock, sand, and gravel. They are essential for construction of buildings and highways, and are used in many household products and industrial processes.



Metals

Metals are found in many different places around the world. Many natural Earth processes affect their distribution and abundance. Metals are essential to our economy and lifestyle, and the global demand for metals continues to rise.



Mining

Mining is essential to meet rising global demand for minerals. Geoscientists locate mineral resources and figure out how to extract them economically while minimizing health and environmental impacts. The method of mining, as well as potential environmental impacts, depends on the type of resource being mined.

Maps & Visualizations



Interactive map of offshore sand and gravel resources of the United States

Bureau of Ocean Energy Management

The Bureau of Ocean Energy Management's Marine Minerals Information System (MMIS) provides an interactive map with information on offshore sand and gravel resources for 18 states on the Atlantic and Gulf coasts of the United States. The system includes: Sand and gravel resources Marine...

Search all Maps & Visualizations [➤](#)

Case Studies & Factsheets

Screenshot of the USEITI case studies showing the Campbell County case study highlighted

Image not found or type unknown

Coal Mining in Campbell County, Wyoming

The U.S. Department of the Interior's Office of Natural Resources Revenue, Information and Data Management has produced a series of case studies on extractive industries across the United States, focusing on coal, copper, gold, iron, natural gas, and oil.

Search all Case Studies & Factsheets [>](#)

Webinars & Forums



Exploring for the Future International Showcase

By 2024 the Australian Government will have invested \$225 million in an unprecedented level of precompetitive geoscience data acquisition and knowledge generation. Led by Australia's national geoscience organisation, Geoscience Australia, the program is gathering and analysing geological,...

Search all Webinars & Forums [>](#)

Build Your Knowledge & Skills



Expand your learning

Expand your learning and build your skills and knowledge with courses on the Geoscience Online Learning Initiative's (GOLI) platform. Learners can browse course descriptions, enroll in specific courses, access content, and embed learning into their daily schedules when it is convenient.

...

Search all GOLI courses [>](#)
