

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.

Basics



Metals occur in many different geologic settings around the world. If enough metal is concentrated in one place to be of economic value, it is called an ore deposit. Well-known metals include copper, iron, gold, aluminum, manganese, and platinum, but nearly all of the sixty or so metals in the periodic table have practical uses. Geoscientists know that different types of ore deposits occur in areas where particular types of geologic processes have taken place. [Read more](#)

Frequently Asked Questions

[What is biomining?](#)

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[Which mineral commodities used in the United States need to be imported?](#)

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[How do we use rare earth elements?](#)

U.S. Geological Survey

[What happens before, during, and after mining?](#)

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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.



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.



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.

Latest News



Secretary of the Interior presents plan to block future mining outside Yellowstone (2016-11-30)

November 21, 2016 Secretary of the Interior, Sally Jewell, announced a plan to block mining development outside of Yellowstone National Park. Under this plan, 30,000 acres of public land north of Yellowstone is subject to a two-year restriction on mining claims while a permanent ban is considered....

Maps & Visualizations



[Interactive map of underground mines in Minnesota](#)

Minnesota Department of Natural Resources

The Minnesota Department of Natural Resources provides an interactive map of underground mines in Minnesota. The map provides detailed information on underground mines and their relationship to overlying surface features. Specifically, this map focuses on iron mines in the northeast of the state....

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Case Studies & Factsheets

[Screenshot of the USEITI case studies showing the Greenlee County case study highlighted](#)

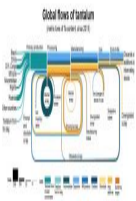
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[Copper Mining in Greenlee County, Arizona](#)

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.

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[Tracking the Global Supply of Critical Materials](#)

2018-01-26

This webinar focuses on U.S. and European Union (EU) efforts to gather information and develop tools that can be used to ensure a secure national and global supply of mineral resources; identify and quantify vulnerabilities in this supply; and stimulate national and international co-operation,...

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Second annual report of state geologist, of the State of Michigan

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