

ROCKIN' AROUND NEW MEXICO JULY 2022

CRITICAL MINERALS IN PREVENTING HAZARDS—ACTIVITIES

Sources of information

- V.T. McLemore powerpoint presentation (<https://geoinfo.nmt.edu/staff/mclemore/documents/McLemoreRockinCM22.pdf>)
- NMA Fact Sheet—uses of minerals
- USGS Mineral Commodity Summaries ([Mineral Commodity Summaries | U.S. Geological Survey \(usgs.gov\)](https://www.usgs.gov/minerals/commodity))
- Periodic table

Activity 1

1. What is a mineral?

2. What is a critical mineral?

3. Which of the rocks and minerals you received contain critical minerals? List the sample and the critical minerals in that sample.

Activity 2

How do critical minerals affect supply chains?

1. What is a supply chain?

2. What happens if a supply chain breaks?

3. Why does a supply chain break?

4. Sketch a supply chain to provide the raw materials for a Li-ion battery factory.

Activity 3

What critical minerals play a role in preventing hazards? Use the periodic table, different colors for 1,2,3 and color the elements that go into making:

1. Earthquake proof bridge
2. Fire proofing your house
3. Minerals make up batteries

What are the risks if we do not have certain critical minerals?
