

COPPER CONNECTS US



Activity | Grades 6–8

Video Topic Series Episode: Copper & Sustainability

Overview

Throughout *Copper Connects Us*, a five-part Video Topic Series, students will explore how copper is a natural resource essential for helping the world meet its future environmental, economic, and societal needs. In this special *Copper & Sustainability* segment, students will explore the natural resources used and affected by the hard rock mining process, as well as the steps the industry is taking to minimize impacts and replenish these resources.

The accompanying activity included here will reinforce and extend learning from the video as students further investigate sustainability and create a comic that educates others about sustainable mining practices and inspires sustainable choices at home and school!

Learning Objectives

Students will:

- **Evaluate** sustainable and unsustainable choices made at home and/or at school
- **Identify** sustainable decisions made by the copper mining industry
- **Create** a comic strip that educates children about sustainable choices in hard rock mining *and* inspires them to make their own sustainable choices

Materials

- Copper Connects Us: Copper & Sustainability video, to project
- Investigate Activity Sheet, one per student
- Copper Connects Us Activity Sheet, one per student
- Drawing/coloring materials, for the class to share
- Estimated Average Cost as of 2024: \$15–20 for a classroom of 30 students

Engage

- Begin by writing the word *Sustainability* on the board. Explain that *sustainability* is our ability to exist and develop while taking care of our planet and its resources so they continue to be available for people who live in the future.
- Then create a T-chart with one side labeled “Sustainable” and the other side labeled “Unsustainable.”
- Have students turn to their partners and brainstorm choices made at home and/or school that are sustainable and unsustainable. If needed, encourage students to think about their water use, their energy consumption, their waste production, and/or their transportation choices!
- After a few minutes, invite students to share their ideas and add them to the T-chart.

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Investigate & View

- Tell your students that everyone plays a part in making responsible and sustainable choices. Today, they will watch a video called *Copper Connects Us: Copper and Sustainability* explaining some sustainable choices the copper industry is making. Remind students that copper is found in many devices and building materials they use every day.
- Pass out one **Investigate Activity Sheet** to each student and review the directions. Encourage students to record notes in the chart as they watch the video.
- Play the **Copper Connects Us: Copper & Sustainability** video.

Apply

- When the video is complete, invite students to share some of the sustainable choices they recorded.
- Then distribute one **Copper Connects Us Activity Sheet** to each student.
- Prepare your students to complete the activity by doing the following:
 - Read through the activity sheet directions together.
 - Reiterate that students will pretend to be comic book writers who are working on a series that teaches children how different industries are innovating to protect the environment—beginning with the hard rock mining industry!
 - Let students know whether they'll work independently or in pairs.
 - Remind students to use their Investigate Activity Sheet to help them develop content for their comic.
- Then encourage your students to begin their comic book design!
- When there are a few minutes left in the session, bring your class back together. Wrap up by dividing students into groups and encouraging them to share their comic strip designs with each other.
- *Optional Extension:* Consider sharing your students' comics with an elementary school library or classroom to help younger students learn from the content your class created.

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National Standards

NEXT GENERATION SCIENCE STANDARDS

Disciplinary Core Ideas

- ESS3.A: Natural Resources
Humans depend on Earth’s land, ocean, atmosphere, and biosphere for many different resources. Minerals, fresh water, and biosphere resources are limited, and many are not renewable or replaceable over human lifetimes. These resources are distributed unevenly around the planet as a result of past geologic processes.
- ESS3.C: Human Impacts on Earth Systems
Typically as human populations and per-capita consumption of natural resources increase, so do the negative impacts on Earth unless the activities and technologies involved are engineered otherwise.

COMMON CORE ENGLISH LANGUAGE ARTS STANDARDS

- CCSS.ELA-Literacy.CCRA.W.2: Write informative/explanatory texts to examine and convey complex ideas and information clearly and accurately through the effective selection, organization, and analysis of content.
- CCSS.ELA-LITERACY.CCRA.W.4: Produce clear and coherent writing in which the development, organization, and style are appropriate to task, purpose, and audience.

As you watch the *Copper Connects Us: Copper & Sustainability* video, fill in this chart with sustainable choices that the copper industry is making, as well as why each choice is sustainable. Writing notes is fine; full sentences are not needed!

Sustainable Choice	Why Is It Sustainable?

Imagine you are a comic book creator. For your next project, you are creating a series for kids about sustainability in different industries!

Your first comic strip in the series should:

1. Teach kids how the hard rock mining industry is making choices that help protect the environment.
2. Inspire kids to make their own sustainable choices.

Fill in the squares below with your comic and continue on a second page if needed.
