

Name _____

Copper Mines in Arizona - Map Activity Worksheet

We will use **CARDINAL DIRECTIONS – NORTH, SOUTH, EAST, WEST** – to find copper mines and towns in Arizona. You will need to use your Copper Map.

There are 5 major copper mines or mining areas in Arizona. They are:

1. Morenci in eastern Arizona (near Clifton)
2. Claypool in east-central Arizona (near Globe)
3. Bagdad in northwestern Arizona (near Prescott)
4. Green Valley in southern Arizona (south of Tucson)
5. Hayden/Ray area (northeast of Tucson)

Put the correct letter from the copper map on the line to the left of each sentence to find these copper locations.

- _____ 1. Bagdad mine is **NORTH** of Bill Williams River.
- _____ 2. Green Valley mining area in Sierrita is **SOUTH** of Tucson and **EAST** of the Santa Cruz River.
- _____ 3. Morenci is on the **EAST** side of our state **NORTH** of the Gila River. It is the largest copper producer in North American and is an open pit mine.
- _____ 4. Hayden/ Ray mines are **NORTH** of where San Pedros River and Gila River join..
- _____ 5. Globe is **NORTH** of Hayden/Ray mine.
- _____ 6. Claypool is directly **WEST** of Globe.
- _____ 7. Superior/Miami are **WEST** of Claypool and **EAST** of Phoenix.
- _____ 8. The Copper Queen Mine is **NORTH** of the Mexican border. It is an underground mine in Bisbee and open for tours.
- _____ 9. Jerome used to be a mining community **WEST** of Verde River. It is now an tourist and artist community.
- _____ 10. Ajo is a mining area **WEST** of Tucson, **SOUTH** of Gila River, **NORTH** of the Mexican border.

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ANSWER KEY

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Mural Narrative Blast It! Learning about Copper

Introduction

Do you play CDs? Use a computer? Use batteries? Talk on a cell phone? Ride in a car? Then you use copper! All of these items need copper! Arizona produces the most copper in the United States and is called the "Copper State." Copper is found in volcanic rocks located throughout Arizona in a diagonal line. The copper industry is important to Arizona's economy, employing thousands of people and bringing in billions of dollars.

Copper Formation

Copper is found in the **crust** of the earth. It was formed from volcanic rocks. Great heat and pressure within the earth produced molten magma from **volcanoes**. Some of this magma was thrust or intruded into other rocks and created copper ore.

Where is the Copper?

Prospectors came to Arizona in the 1800s to search for such minerals as copper, gold, and silver. They used simple equipment such as picks, shovels, and pans. These prospectors could find minerals sometimes by just looking at rocks on the surface of the earth. As time went on, however, the minerals were harder to find. Picks, shovels and pans were replaced by more modern mining equipment owned by large mining companies. It is now estimated that if you mine 6,000 pounds of rocks, there is only 10 pounds of copper in it. That means there are 5,990 pounds of rock that has no copper.

Types of Copper Mines

There are two types of copper mines. The first type is an **open pit mine** or a surface mine. It is a copper mine that is located at the top of the ground. The ore is removed layer by layer and the land becomes terraced. The **terraces** are sometimes called benches.

The second kind of mine is an **underground mine**. The ore is under the earth and is brought to the surface. This type of mine has a vertical opening called a **shaft**.

Once the ore is found in the mine, the copper is removed from the rocks by different processes. The copper is then made into sheets or rods to be then made into various products.

Conclusion

Copper is an important mineral, and Arizona is a leading producer of copper. Once copper is mined, it is used in many everyday products. Without copper, we would not be able to use many of the items we need.

<p>Copper Rocks</p>	<p>Underground mine</p>
<p>A reddish- brown metallic element that is an excellent conductor of electricity (end product).</p>	<p>An excavation beneath the Earth's surface to remove copper.</p>

Vocabulary cards with out pictures

<p>Underground mine shaft</p>	<p>Open pit mine</p>
<p>Vertical opening of an underground mine</p>	<p>Large hole dug and developed for the removal of copper ore near the Earth's surface (also called mining).</p>

Vocabulary cards with out pictures

<p>Earth's Crust</p>	<p>Terraces at an open mine pit</p>
<p>Inside the Earth 3-32 miles thick.</p>	<p>The various levels at an open pit mine (also called "benches").</p>

Vocabulary cards with out pictures

<p>Volcanoes erupting</p>	
<p>An opening in the Earth's crust which the magma can pass to the surface</p>	

Vocabulary cards with out pictures