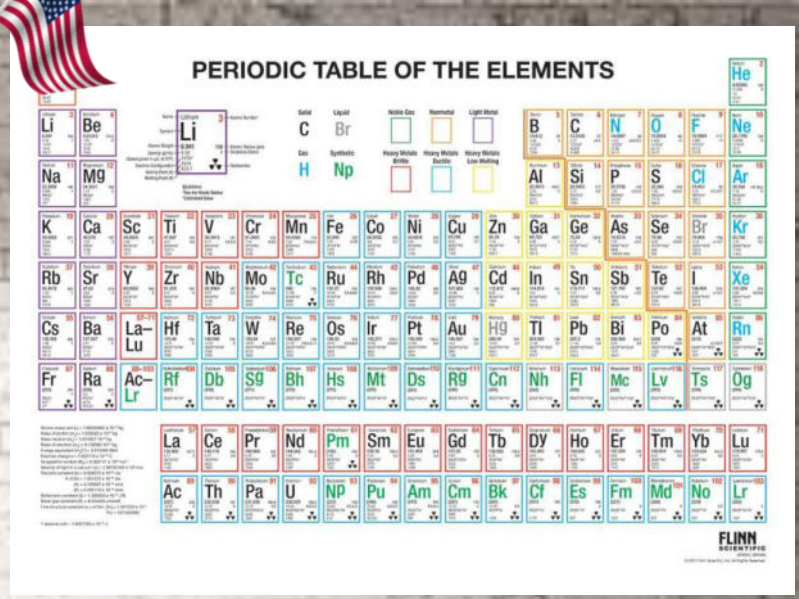
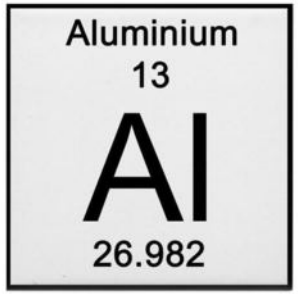
What Is A Metal?

Purpose: Examine physical and chemical properties of elements. Determine properties used to classify elements on the periodic table.

Click on each element to learn more about it! Remember to record your findings in your data table.



Aluminum



Aluminum is light, strong enough to be used to form the structure of airplanes, and cheap enough to be found in most kitchens. Aluminum's advantage over steel is that it does not rust. Powdered aluminum is very reactive and is a basic ingredient for rocket fuel.

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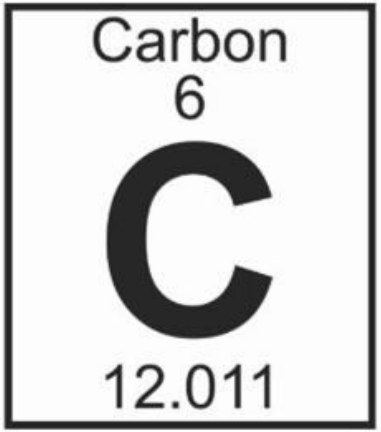
Click the arrow to learn about another element

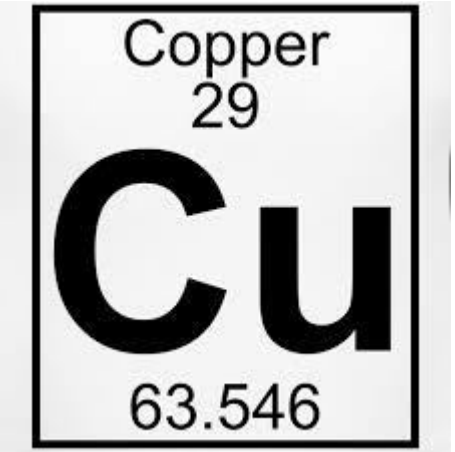
Carbon



Carbon is incredibly important, making up the backbone of DNA, proteins, steroids. There is a whole separate category of compounds that contain Carbon called "organic compounds." Carbon forms diamond, which is the hardest known substance. Carbon emissions have become a hot topic as civilizations pump Carbon Dioxide into the atmosphere at an incredibly fast rate.

Click the arrow to learn about another element

Copper

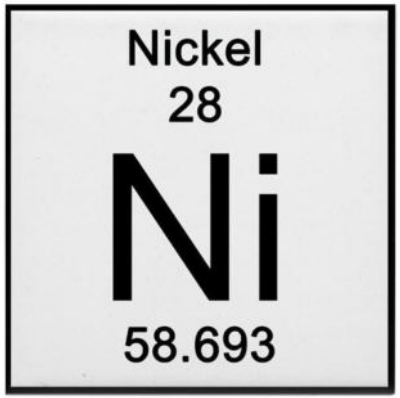


Copper can be toxic, but it's very rare and would take a lot of effort to be poisoned by it. In fact, copper has antimicrobial properties that makes it useful for hospitals for doorknobs and other surfaces. Copper is soft enough to be worked with using hand tools or power tools, yet hard enough to hold a shape. Copper is reasonably priced and is often used in jewelry. Copper is highly conductive, and it is commonly used for electrical wiring.

Click the arrow to learn about another element

Nickel

Nickel is widely used in coins (hence why we have a coin called a nickel) and it's also used to plate automobile bumpers. Nickel is used in jet engines because it can maintain its strength even at extreme temperatures.



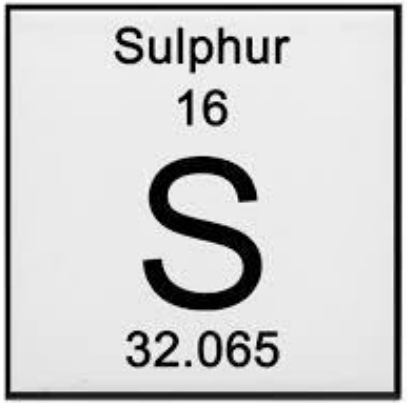
Click the arrow to learn about another element

Silicon

A very useful element for humans, silicon is a main ingredient in low tech creations such as bricks and ceramics, and makes up a majority of Earth's crust and sand found on beaches. But as a semiconductor, it is even more useful in high tech gadgets such as computer chips, radios, computers, and iPhones.

Click the arrow to learn about another element

Sulfur



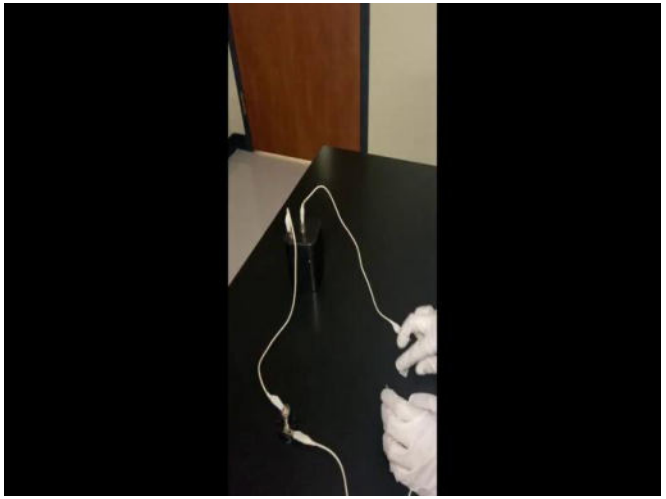
What's that smell? Sulfur is smelly as a powder, crystal, and especially when burned, often smelling like rotten eggs. Sulfur is one of the main ingredients in gunpowder, and is released when fossil fuels are burned. It is useful for balancing the pH of soil in any garden and sulfuric acid is important for manufacturing processes.

The sulfur we have in the lab is a powder...would that make it malleable or brittle?

Click the arrow to learn about another element

Zinc

The value of the penny sank until the copper used to make pennies was more valuable than the coin, so pennies today are mostly made of zinc! Blocks of zinc are electrically connected to steel structures like bridges and railroads to protect the more valuable iron from rusting.



Click the arrow to learn about another element