





- Several electronic devices contain metals which are made from a variety of elements and compounds.
 - **Examples**: copper wiring, lithium batteries
- Other metals that can be found in electronics include lithium, tin, silver, gold, nickel, and aluminum.



- E-waste often leaches toxins into the environment, particularly when it is improperly handled.
- In some cases, e-waste is disposed of through burning, which is linked to respiratory and cardiovascular disease.
- Many of these electronics can be reused or repurposed.

- Improper disposal of computers, cell phones, and batteries can release harmful chemicals into the Earth.
 - Contains heavy metals like lithium, mercury, and lead that can contaminate water and soils

Why are electronics commonly disposed of?



- Electronic waste is the number one producer of toxic heavy metals in landfills
 - Only 2% of total waste
- Electronic waste is often sent to countries that lack regulation regarding proper disposal.

Is sending electronic waste to another country a good solution to the issue? Explain.



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What can you do as a consumer to limit the impact of electronic waste?



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What government intervention could be used to reduce e-waste and the harm associated with e-waste?





- Most **nitrogen** is located in Earth's atmosphere.
- Bacteria take this nitrogen to produce nitrogen compounds that get added to soil.
- Humans also add nitrogen to soil because it is important for plant growth and chlorophyll production.



- The nitrogen gets absorbed into plants and moves through each stage of the food chain.
- Eventually, decomposing bacteria releases the nitrogen back into the atmosphere.





- Fertilizers promote the growth of plants and crops.
- Chemical fertilizers, blood meal, and animal manure are commonly added to soil to increase nitrogen content.
 - This added nitrogen is never fully retained in the soil due to rainfall and leaching into groundwater.





- Excessive nitrogen content can lead to an overabundance of aquatic plants and algae.
 - These organisms remove dissolved oxygen from water and can kill other marine life.
- Consuming water contaminated with excess nitrogen can restrict oxygen transport in the bloodstream.

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How might further discoveries about elements and compounds influence the world in the future (environmentally, economically, socially)?

