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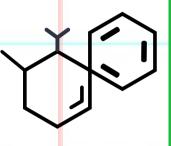
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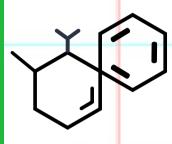
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## Introduction to Chemistry



Chemical compounds and chemical mixtures are combinations of different types of elements.





Chemicals that are made up of one type of atom are elements.





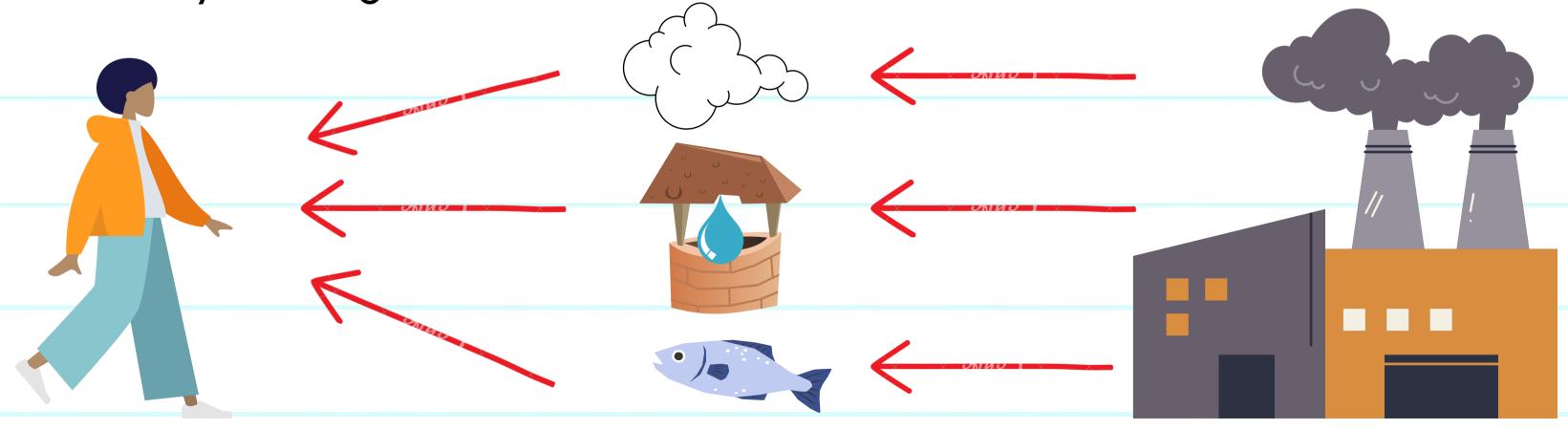
Atoms are the building blocks for all things in the universe because they make up everything.



## Introduction to Chemistry

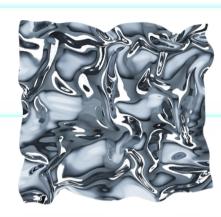
### Human Exposure

When a person comes in contact with a chemical this is called exposure. Chemicals can get into the body through eating, drinking, breathing, and occasionally, through skin contact.



### About Lead

Lead is an elemental metal that is found naturally in the Earth.



It can be found in the air, water, and soil.







Because lead is an element, it does not break down in the environment.

### About Lead

Lead has historically been used to make:



\*\*Due to health concerns, lead is no longer used in production of these

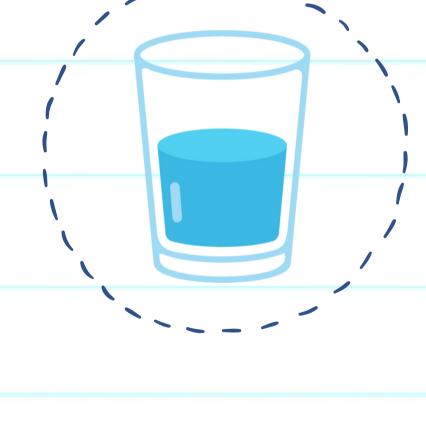
products.

### Ways to be Exposed to Lead

Drinking
Contaminated Water

Homes with Leadbased Paint

Eating
Contaminated Food



Contaminated Soil

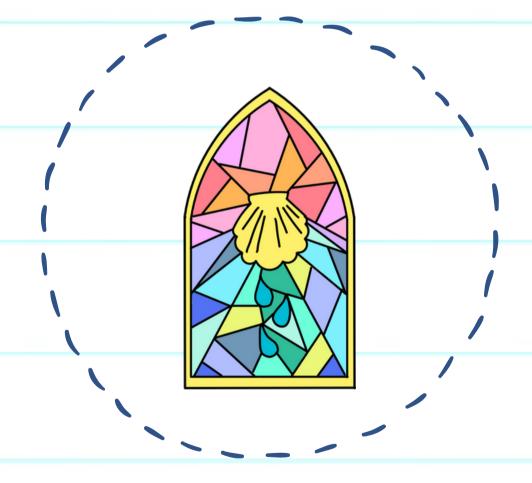




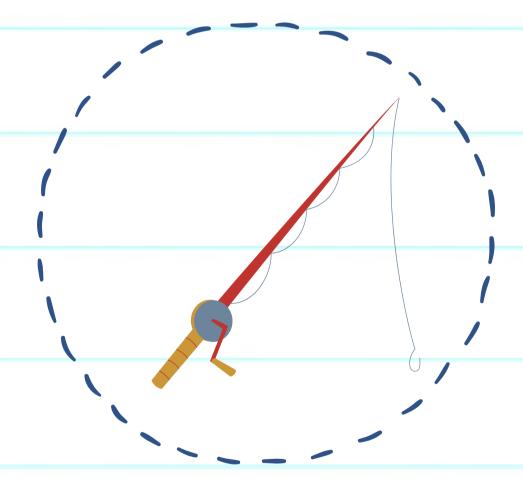
### Ways to be Exposed to Lead

Hobbies where Lead is Involved

Making Stained Glass



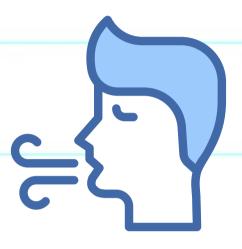
Fishing Weights



### What happens when lead enters my body?

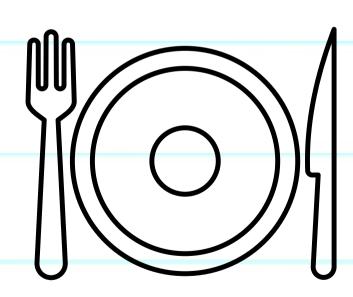
#### Breathing

• 60-80% of the lead that is inhaled will be absorbed into the bloodstream.



#### Eating

• 40-50% of the lead that is ingested is absorbed into the bloodstream of children and 3-10% in adults.



Lead primarily leaves the body through urine and feces.

### Potential Health Problems

Just because you have been exposed to lead does not mean that you will feel sick or have any health problems.

Lead can cause health problems in almost every organ and system in the body.

Decreased learning, memory, and attention.

Weakness in fingers, wrists, or ankles.

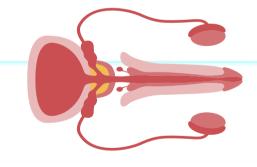
Damage to
Reproductive
Organs in Men



Anemia (low iron in Increased Blood

The blood)

Pressure



Miscarriage in pregnant women.



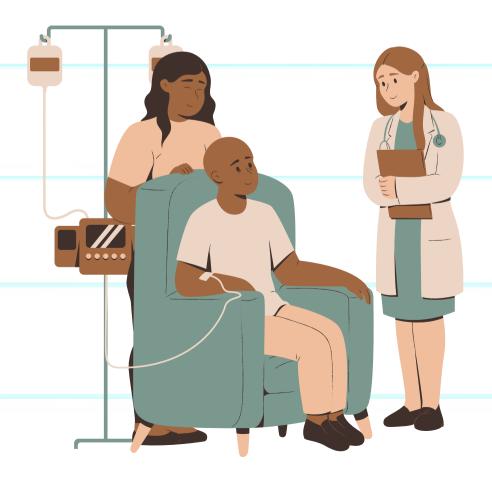




### Potential Health Problems

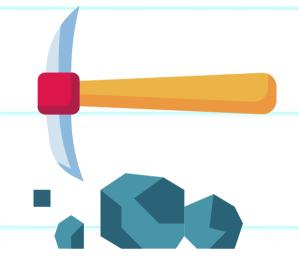
Just because you have been exposed to lead does not mean that you will feel sick or have any health problems.

Lead has been classified by the Department of Health and Human Services and the Environmental Protection Agency as probable to cause cancer in humans.



# You are at a higher risk of coming in contact with lead if you work in the following industries:

Lead smelting, mining, and refining



Steel welding or cutting operations



Battery manufacturing

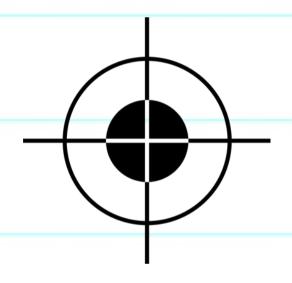


Construction

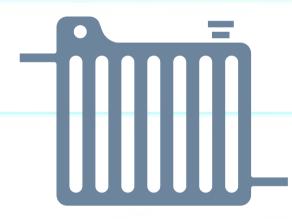


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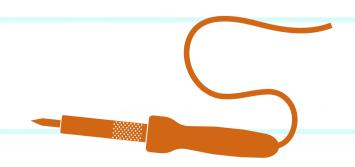
Firing ranges



Radiator repair shops

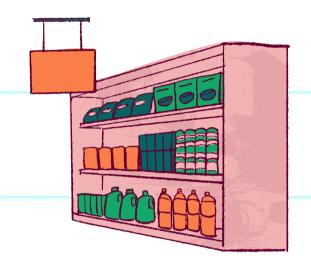


Industries requiring flame soldering of lead

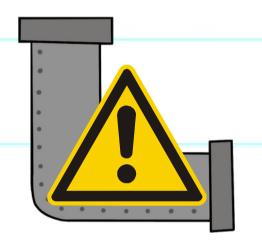


### Reducing Future Exposures

Check for lead in consumer products.



Avoid drinking water that traveled through pipes with lead solder.





Check the construction date of your home and homes you spend a lot of time in. Homes built before 1978 may contain lead-based paint. Clean and dust regularly with a damp cloth.



### Resources

The resources listed below work on issues related to health and/or environmental pollution in Glynn County.

#### **Emory University**

Phone: 404-727-0250

Email: BrunswickExposure@emory.edu

#### **Environmental Justice Advisory Board**

Website: environmentaljusticeadvisoryboard.org

Phone: (912) 398-9923

Email: ejab.brunswickegmail.com

#### **Glynn Environmental Coalition**

Website: <a href="https://www.glynnenvironmental.org/">https://www.glynnenvironmental.org/</a>

Phone: (912) 466-0934

Email: <u>GEC@glynnenvironmental.org</u>

#### **One Hundred Miles**

Website: <a href="https://onehundredmiles.org/">https://onehundredmiles.org/</a>

Phone: (912) 264-4111

Email:

#### **Coastal Community Health**

Website: <a href="https://coastalchs.org/">https://coastalchs.org/</a>

Phone: <u>912-275-8028</u>

Email:

#### **UGA Marine Extension and Sea Grant**

Website: wwww.gacoast.uga.edu/

Phone: 912-264-7268

Email: klaustineuga.edu

#### Glynn County Health Department

Phone: (912) 264-3961

Website: https://bit.ly/3NkOIFv

#### **EcoAction**

Phone: 470-963-0389

Email: info@eco-act.org

#### **Rebuilding Together of Glynn County**

Phone:912-398-9923

Website: rebuildglynncounty.org

#### Coastal Equity and Resilience Hub

Website: cearhub.org

### References

Agency for Toxic Substances and Disease Registry (ATSDR). 2020. <u>Toxicological Profile for Lead</u>. Atlanta, GA: U.S. Department of Health and Human Services, Public Health Service.