

Elements, Compounds and Environmental Change

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MY QUESTIONS:

BIG IDEA: Chemicals in our environment can lead to severe and irreversible impacts on sustainability. Applying chemistry innovations to improve environmental conditions is an application of science.

What will be learning?

- Demonstrate responsible laboratory practices.
- Use and apply the periodic table to classify elements based on their properties.
- Write chemical formulae for compounds with metals and non-metals.
- Describe and distinguish between atoms, molecules, and compounds.
- Develop and use Bohr models.

Key Words

- element
- subatomic particle
- atom
- compound
- molecule
- Atomic theory
- Electron, proton, neutron
- nucleus
- chemical property
- physical property
- ionic, covalent
- periodic table of elements

KNOWING – Knowledge and Understanding



image from Buzzle.com

I am	I am getting	Yes, I know	Learning Goal
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new to this.	there.	this!	
			I can summarize the atomic theory, including reference to Dalton, Rutherford, and Bohr.
			I can identify and describe the three subatomic particles.
			I can distinguish between atoms, ions, molecules, and compounds.
			I can describe how the periodic table is organized.
			I can distinguish between metals, non-metals, and metalloids.
			I can give examples of chemistry's role in environmental changes.
			I can summarize practical examples of innovations in environmental chemistry.

DOING - Skills

I am new to this.	I am getting there.	Yes, I know this!	Learning Goal
			I can use laboratory equipment safely.
			I can use the periodic table to predict properties of elements.
			I can draw Bohr models for all the elements up to atomic number 20.
			I can use Bohr models to differentiate between the structures of atoms and ions.
			I can write chemical symbols for atoms and ions.
			I can write chemical formulae for compounds with metals and non-metals.
			I can write formulae for ionic compounds with multivalent metals .
			I can write formulae for ionic compounds with polyatomic ions .
			I can name ionic compounds given chemical formulae.