

Lesson 2 Protons, Neutrons, and Electrons—How Atoms Differ

Skim Lesson 2 in your book. Read the headings and look at the photos and illustrations. Identify three things you want to learn more about as you read the lesson. Record your ideas in your Science Journal.

Main Idea

The Parts of the Atom

I found this on page _____.

Different Elements— Different Numbers of Protons

I found this on page _____.

Neutrons and Isotopes

I found this on page _____.

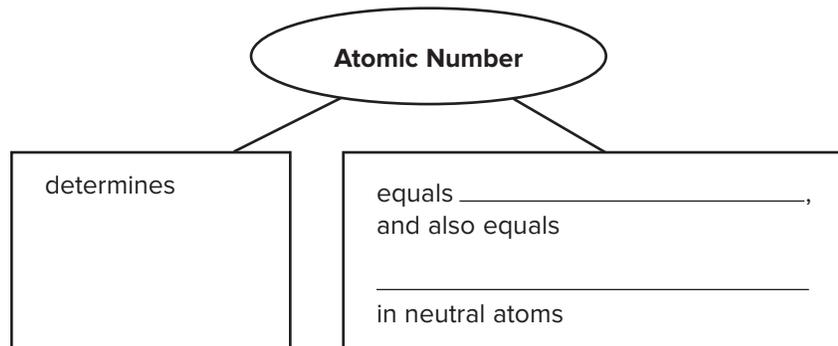
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Details

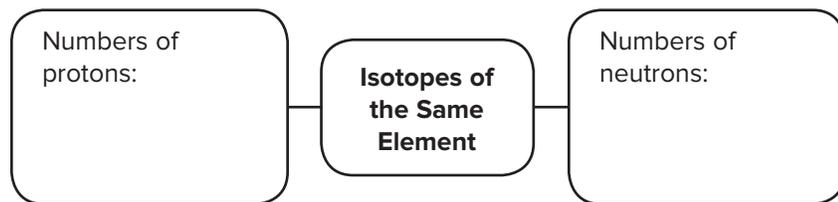
Distinguish parts of the atom.

Part	Electron	Proton	Neutron
Symbol			
Charge			
Location			
Relative Mass		1	

Relate details about atomic number.



Differentiate numbers of protons and neutrons in different isotopes of the same element.



Contrast the numbers of particles represented by an element's mass number and atomic number.

Atomic Number	Mass Number

Main Idea

I found this on page _____.

Radioactivity

I found this on page _____.

Ions—Gaining or Losing Electrons

I found this on page _____.

Details

Define average atomic mass.

 **Differentiate** three types of nuclear decay that occur in radioactive elements.

Type	Change	Result
Alpha decay		
Beta decay		
Gamma decay		

 **Contrast** the formation of ions.

Positive Ion	Negative Ion
A neutral atom _____ _____.	A neutral atom _____ _____.
Result: _____ _____.	Result: _____ _____.

 **Synthesize It** Summarize why people were unsuccessful over 1,000 years ago when they tried to transform lead into gold. What process would they have needed to complete in order to have been successful?
