

**Welcome! Please grab your ISN and
have a seat NO WARMUP TODAY!!! Just
make sure you have the two pages
from the shelf!!**

KISS

Sep 28-9:34 AM

WWK (pg 33-34)


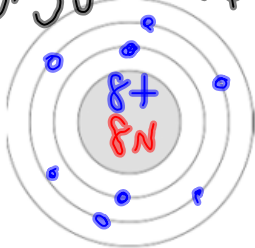
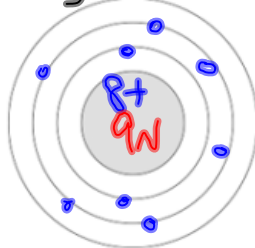
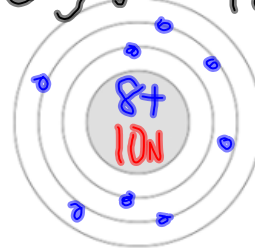
12. **isotope**- different version of
the same element where proton# &
electron# are the same but mass &
neutron # are different.

13. **ion**- an element that loses or
gains an electron due to a
chemical change.

Sep 28-9:35 AM

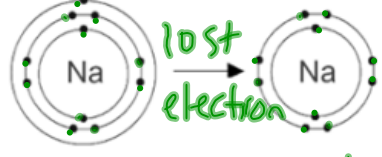
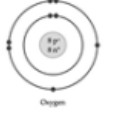


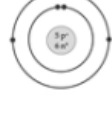
TOC 43-44 Isotopes and Ions

Isotopes

<p>Isotopes are different versions of the same element with the same number of protons and different number of neutrons.</p>	<p>All the isotopes of the same element have the same atomic number!!</p>	<p>Isotope Notation: Oxygen-17 Isotope Symbol: $\text{mass} \rightarrow 17$ $\text{atomic} \rightarrow 8$ </p>
<p>Oxygen-16</p> 	<p>Oxygen-17</p> 	<p>Oxygen-18</p> 

Sep 28-9:36 AM

Ions

<p>An ion is an element that loses or gains an electron and becomes charged.</p>	<p>atom ion</p>  <p>$\text{Na} \rightarrow \text{Na}^+$</p>	<p>Loss of an electron creates a cation with a positive charge. $\text{K} \rightarrow \text{K}^+$</p> <p>Gain of an electron creates a anion with a negative charge. $\text{O} \rightarrow \text{O}^{2-}$</p>
<p>Elements in groups 1, 2, 13 are more likely to LOSE electrons and become cations (+).</p>	<p>What ionic charge would make these elements stable?</p>  	<p>Elements in the (14) Carbon family could either lose or gain electrons, depending on the reaction. Mostly, however, these elements do not form ions.</p>
<p>Elements in groups 15, 16, 17 are more likely to GAIN electrons and become anions (-).</p>	 	

Sep 28-9:38 AM

√-isotope

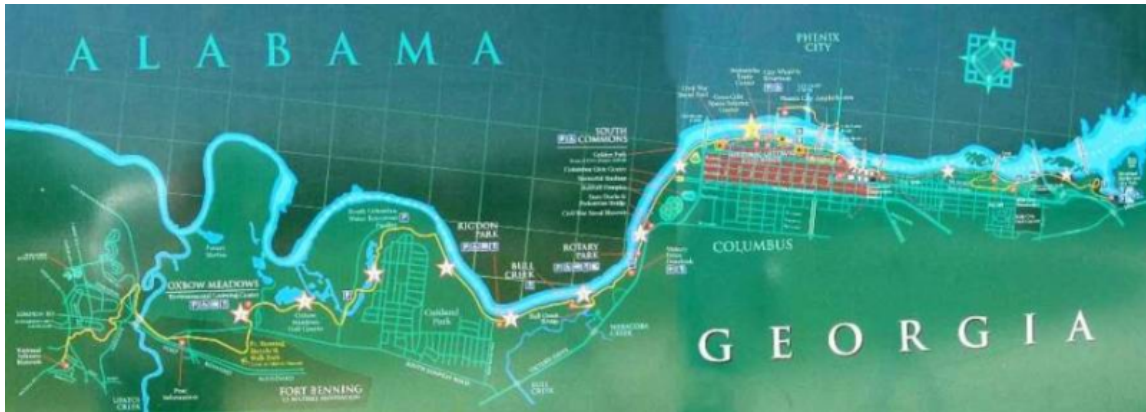
*ion

Pg 43

examples

#	Element Name	Symbol	Atomic Number	Mass Number	Number of Protons	Number of neutrons	Number of Electrons	Charge
1	Aluminum	Al	13	27	13	14	13	0
2	Bromine	Br	35	80	35	45	36	-1
3	Uranium		92			146	92	
4	Helium		2	4				-1
5	Helium		2	5			2	
6	Lithium		3	7			2	
7	Tungsten			184		110	74	
8	Xenon					79	54	neutral
9	Magnesium		12	24				+2
10	Carbon		6			6		neutral
11	Carbon	C	6	14	6	8	3	+3
12	Nitrogen		7	14				neutral
13	Potassium		19	40				-2
14	Gold			197				-3
15	Sodium			22				neutral

Sep 28-9:41 AM



Sep 29-8:21 AM