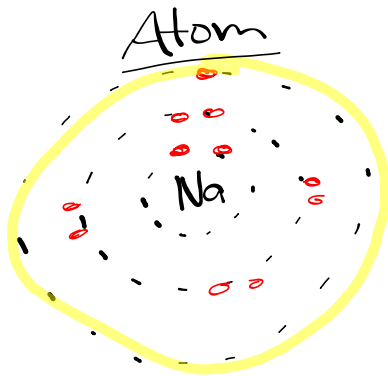
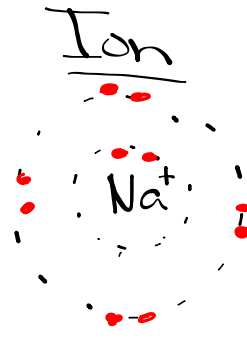


Check Homework



$$\begin{array}{r} 11p^+ \\ 11e^- \end{array}$$



$$\begin{array}{r} 11p^+ \\ 10e^- \\ \hline 1+ \end{array}$$



$$\begin{array}{r} 4p^+ \\ 4e^- \end{array}$$

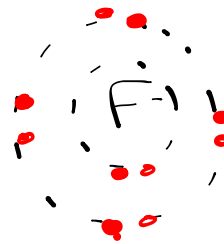
Ion



$$\begin{array}{r} 4p^+ \\ 2e^- \\ \hline 2+ \end{array}$$

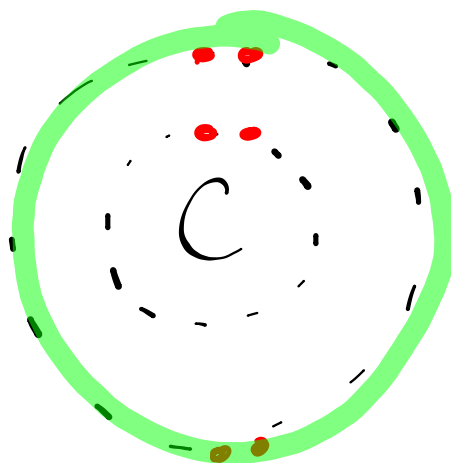


$$\begin{array}{r} 9p^+ \\ 9e^- \end{array}$$



$$\begin{array}{r} 9p^+ \\ 10e^- \\ \hline 1- \end{array}$$





$6p^+$
 $6e^-$

Review of Terms...

ion - charged atom in which the number of electrons is different from the number of protons.

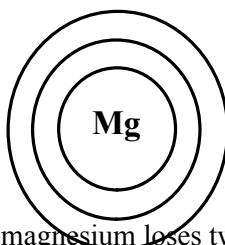
An atom that gains or loses one or more electrons becomes an ion.

Ex. F^- (9 proton, 10 electrons)

ionic charge - numerical value of the electric charge with a plus or minus sign

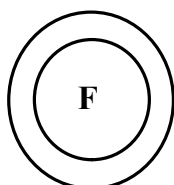
Ex. $F^- \Rightarrow$ ionic charge of 1-

$Mg^{2+} \Rightarrow$ ionic charge of 2+



e^-

When magnesium loses two electrons, it becomes Mg^{2+} (12 protons, 10 electrons). It now has a stable arrangement of electrons. This is called a magnesium ion.



e^-

When fluorine gains an electron, it has a stable electron arrangement, the same as neon (Ne). We call the F^- ion a **fluoride** ion.

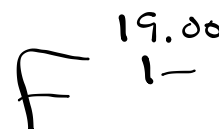
When nonmetals gain electrons to form ions, the name of the ion changes its ending to "ide".

\Rightarrow **fluorine atom becomes a fluoride ion**

Valence Electrons

valence electrons the electrons in the last shell or energy level of an atom.

- show a repeating or periodic pattern
- increase in number as you go across a period
- when you start the new period, the number drops back down to one and starts increasing again



17

Li ⁺			C 4	N ³⁻ 5	O ²⁻ 6	F 7	Ne 8
Na ⁺ 1			Si 4	P ³⁻	S ²⁻	Cl	
K ⁺			Ge 4		Se ²⁻	Br	

****Look at the group number!****

Exercise

Skip 7b, c, d

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ions worksheet

			C 4	N 5	O 6	F 7	Ne 8
Na 1			Si 4				
			Ge 4				