

# April 16, 2019

Answers pg 187 #5,6  
Ionic Compounds

## Quiz Thursday !!

### Warm-Up

1. Label each of the following as an element or ion and draw the bohr diagram

$\text{Cl}^{1-}$

(ion)

chloride chlorine

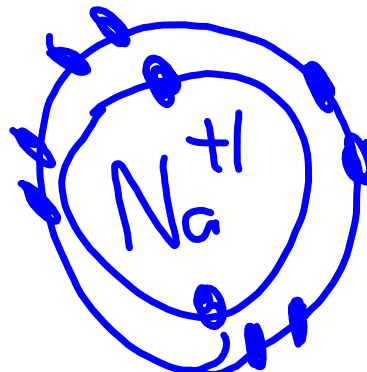
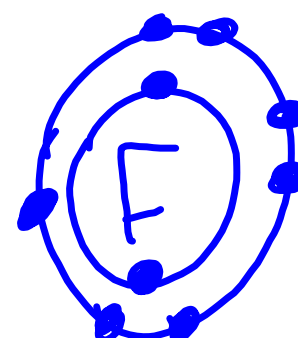
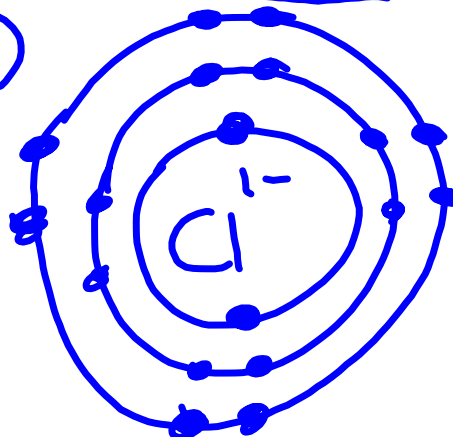
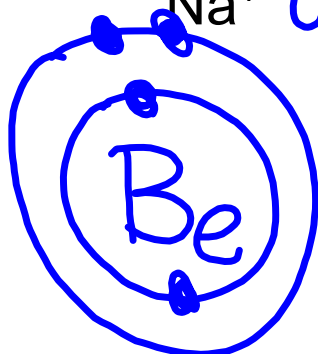
Be

(element)

F

$\text{Na}^{1+}$

(ion)

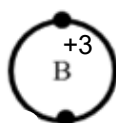


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5. a full valance

6.

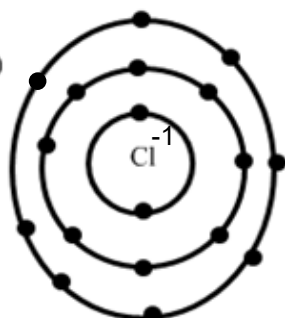
a)



loses 3

helium

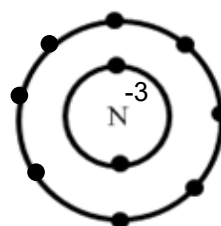
b)



gains 1

argon

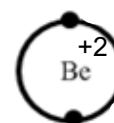
c)



gains 3

neon

d)



loses 2

helium

# Compounds

Compounds are made by elements transferring or sharing electrons.

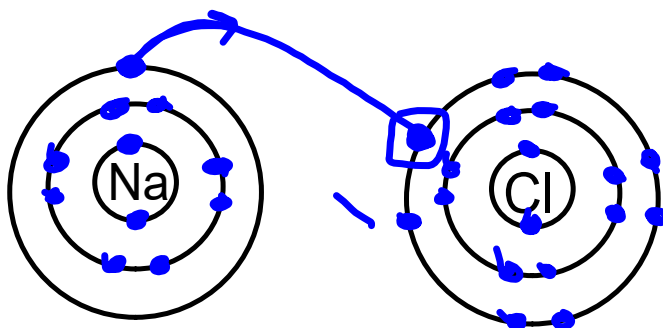
- the further an  $e^-$  is away from the nucleus, the greater the possibility of it making a compound with another element
- the **outermost electrons (valance  $e^-$ )** are involved in making compounds

## Ionic compounds

- created from ions
- composed of a **metal** (**positive ion (cation)**) and a **nonmetal** (**negative ion (anion)**)
- electrons are transferred from the metal to the nonmetal
- once the transfer has taken place, the compound is neutral and has an overall charge of 0.
- also remember that when non-metals form ions their name changes to an -ide ending. i.e. chlorine = chloride, oxygen = oxide, nitrogen = nitride etc

Example 1:  
sodium and chlorine

Salt consists of **sodium (Na)** and **chlorine (Cl)**.



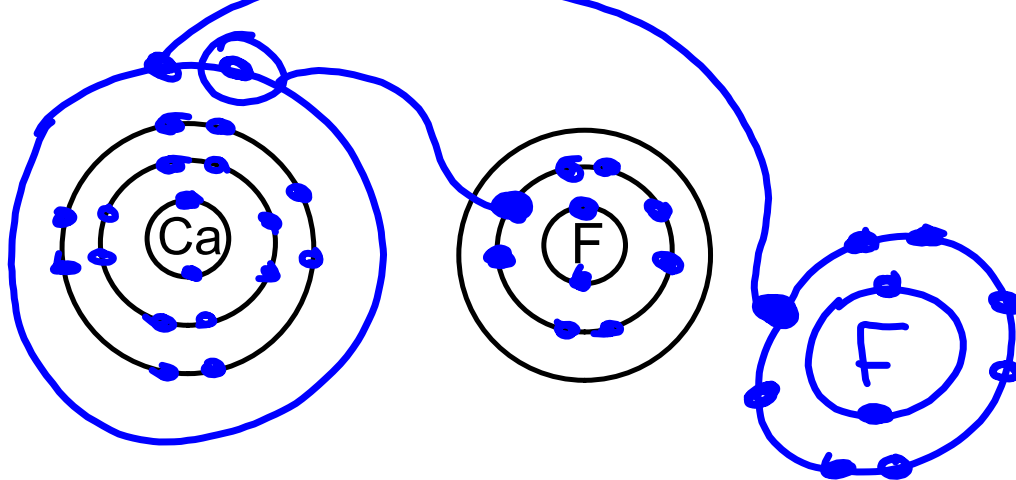
Charges on ions:  $\text{Na}^+ \text{Cl}^-$   $\text{NaCl}$

Formula for compound:

Charge on Compound: none

Name of compound :  
sodium chloride

ex. calcium and fluorine



Charges on ions:  $\text{Ca}^{2+}$   $\text{F}^{-}$   
 Formula for compound:  $\text{CaF}_2$  (subscript below script)  
 Charge on Compound: none  
 Name of compound: calcium fluoride

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