

CLASSWORK: Defining Ionic Compounds

Review:

1. Draw the Lewis dot structures for the neutral atom and the ion of:

- a. K K
 b. Al Al
 c. Ca Ca

2. Draw the Lewis dot structures for neutral atom and the ion of:

- a. O O
 b. Cl Cl
 c. N N

Stop and Jot.

3. What comes to mind when you hear the word "compound"? How is a compound different from an element or a mixture?

4. Review. Label the following pictures as an element, compound, or mixture:

- A. _____ B. _____ C. _____ D. _____ E. _____

A compound is _____.

Three types of compounds: _____, _____, and _____.

Ionic Compound

Word Parts:

An _____ is _____.

An **ionic compound** is formed when _____.

Example: Lithium Fluoride

<u>Lewis Dot Structure</u>	<u>Bohr Model</u>

All ionic compounds are composed of a _____ and a _____.

Ionic compounds are always _____, meaning their charges _____.

Example:

Practice.

5. Write **ionic or not ionic** to identify if the following are ionic compounds or not. If yes, write the charges above each atom in the ionic compound.

a. _____ CO

e. _____ MgO

b. _____ NaBr

f. _____ Al₂O₃

c. _____ CaCl₂

g. _____ PN

d. _____ Li₂O

h. _____ OF₂

Properties of Ionic Compounds	How we test for this property
1.	
2.	
3.	
4.	

6. An unknown substance, Klinium, is discovered. The substance has a very high melting point and is solid but breaks apart easily. The substance does not conduct an electric current when dissolved in water. Can you say with certainty that Klinium is an ionic compound? Explain your answer.

7. Challenge. Write in charges above each atom and then determine if the following ionic compounds are electrically neutral. If not write in subscripts to change the number of atoms to balance the charges.

a. K__Br__

f. Li__N__

b. Na__O__

g. Ca__Cl__

c. Mg__Cl__

h. Ca__Br__

d. Al__N__

i. Mg__P__

e. Al__F__

j. Ga__O__