

Name: _____

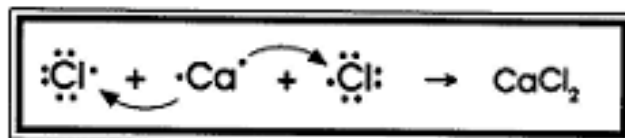
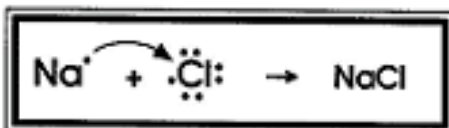
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Unit 3 - Topic 2

Ionic Bonding

Element	Lewis Dot Structure as an ATOM	Lewis Dot Structure of Stable ION	Becomes like which noble gas?
Potassium			
Bromine			

The electron from K was transferred to Br and now they are both stable and 'bond' as a compound. The chemical formula of the compound will be: _____



Electron Transfer [*Remember to draw ions in BRACKETS]

Ionic bonding occurs when a metal transfers one or more electrons to a non-metal to attain a stable octet.

Show the transfer of electrons in the following:

	Draw Arrow for electron Transfer	Draw a Lewis Structure of Resulting Compound
Magnesium and sulfur		
Lithium and nitrogen		
Calcium and nitrogen		
Aluminum and nitrogen		

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Naming Ionic Compounds with Metals from Groups 1, 2, and 13

Many binary (2 types of atoms) ionic compounds contain metals that have only one possible oxidation state. Give either the name or formula for the following binary compounds.

Give the correct names for these binary ionic compounds:

1. KCl _____
2. MgO _____
3. BaS _____
4. Mg_3P_2 _____
5. Al_2O_3 _____

Give the correct formulas for these binary ionic compounds:

6. calcium iodide _____
7. barium oxide _____
8. magnesium nitride _____
9. sodium chloride _____
10. calcium sulfide _____

Ionic Compounds with Transition Metals

Some binary ionic compounds contain transition metals (including groups 3-12 and some in group 13). Give either the name or formula of the following binary compounds.

Give the correct formulas for these binary compounds:

11. copper (II) iodide _____
12. gold (I) sulfide _____
13. iron (III) bromide _____
14. manganese (II) fluoride _____
15. chromium (VI) oxide _____

Give the correct IUPAC names for the following compounds:

16. $FeCl_3$ _____
17. $FeCl_2$ _____
18. $MnCl_2$ _____
19. AgI _____
20. CuBr _____