

Name: _____

Date: _____

Science 10 – Chemistry Assignment #2**A****Formation of Ionic Compounds**

1. Draw Lewis diagrams for magnesium and chlorine. Use the Lewis diagrams to show how these two elements transfer electrons to form an ionic compound. (4 marks)

Naming Ions

2. Write the name for each of the following ions. (5 marks)

Fe^{3+}	CN^-	P^{3-}	Zn^{2+}	NH_4^+

3. Write each ion in ionic notation. (5 marks)

sulfate ion	copper(I) ion	aluminum ion	nitride ion	acetate ion

Naming Ionic Compounds

4. Write the name of each compound. (8 marks)

a. $\text{Ca}(\text{NO}_3)_2$ _____b. MnCl_4 _____c. NH_4F _____d. Ag_2O _____e. Au_3P _____f. NaClO_3 _____g. AlN _____h. CrO_3 _____

5. Write the formula for each compound. (8 marks)

a. hydrogen carbonate _____

b. mercury(II) sulfide _____

c. magnesium phosphide _____

d. cobalt(III) acetate _____

e. lead(IV) oxide _____

f. ammonium chloride _____

g. potassium iodide _____

h. gallium phosphate _____

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Science 10 – Chemistry Assignment #2**B****Formation of Ionic Compounds**

1. Draw Lewis diagrams for sodium and oxygen. Use the Lewis diagrams to show how these two elements transfer electrons to form an ionic compound. (4 marks)

Naming Ions

2. Write the name for each of the following ions. (5 marks)

SO_4^{2-}	Cr^{3+}	I^-	Ag^+	CN^-

3. Write each ion in ionic notation. (5 marks)

iron(II) ion	selenide ion	phosphate ion	copper(II) ion	dichromate ion

Naming Ionic Compounds

4. Write the name of each compound. (8 marks)

a. Na_2CO_3 _____b. MnCl_2 _____c. NH_4NO_3 _____d. ZnS _____e. PbO_2 _____f. $\text{Sr}(\text{C}_2\text{H}_3\text{O}_2)_2$ _____g. KI _____h. PdF_4 _____

5. Write the formula for each compound. (8 marks)

a. ammonium fluoride _____

b. calcium hydroxide _____

c. aluminum oxide _____

d. mercury(I) sulfide _____

e. gold(III) phosphide _____

f. nickel(II) sulfate _____

g. lithium iodide _____

h. hydrogen phosphate _____

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Science 10 – Chemistry Assignment #2**C****Formation of Ionic Compounds**

1. Draw Lewis diagrams for aluminum and fluorine. Use the Lewis diagrams to show how these two elements transfer electrons to form an ionic compound. (4 marks)

Naming Ions

2. Write the name for each of the following ions. (5 marks)

CrO_4^{2-}	Cr^{6+}	NH_4^+	As^{3-}	Na^+

3. Write each ion in ionic notation. (5 marks)

carbonate ion	manganese(II) ion	fluoride ion	oxalate ion	phosphide ion

Naming Ionic Compounds

4. Write the name of each compound. (8 marks)

a. HNO_3 _____b. PbS _____c. $(\text{NH}_4)_2\text{O}$ _____d. FeCl_3 _____e. NaH _____f. MgCO_3 _____g. SnO_2 _____h. LiClO_2 _____

5. Write the formula for each compound. (8 marks)

a. calcium phosphate _____

b. sodium acetate _____

c. lead(II) oxide _____

d. calcium chloride _____

e. cobalt (III) hydroxide _____

f. magnesium phosphide _____

g. titanium(II) fluoride _____

h. ammonium nitrate _____

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Science 10 – Chemistry Assignment #2**D****Formation of Ionic Compounds**

1. Draw Lewis diagrams for potassium and phosphorus. Use the Lewis diagrams to show how these two elements transfer electrons to form an ionic compound. (4 marks)

Naming Ions

2. Write the name for each of the following ions. (5 marks)

Tl ³⁺	Cr ₂ O ₇ ²⁻	S ²⁻	OH ⁻	Sc ³⁺

3. Write each ion in ionic notation. (5 marks)

palladium(II) ion	carbonate ion	cadmium ion	thiosulfate ion	oxide ion

Naming Ionic Compounds

4. Write the name of each compound. (8 marks)

a. Ca₂C _____b. MgCO₃ _____

c. FeO _____

d. SrCl₂ _____e. NiPO₄ _____f. HC₂H₃O₂ _____

g. KBr _____

h. MnF₃ _____

5. Write the formula for each compound. (8 marks)

a. lead(IV) hydroxide _____

b. cesium fluoride _____

c. ammonium oxide _____

d. copper(II) sulfate _____

e. zinc chloride _____

f. magnesium phosphate _____

g. silver nitrate _____

h. mercury(I) sulfide _____