

MINISTRY OF EDUCATION
SECONDARY ENGAGEMENT PROGRAMME
GRADE 10
CHEMISTRY

WEEK 10

LESSON 2 - WORKSHEET

Write chemical formulas for the compounds in each box. The names are found by finding the intersection between the cations and anions. Example: The first box is the intersection between the “zinc” cation and the “chloride” anion, so you should write “ZnCl₂”, as shown.

	<i>zinc</i>	<i>iron (II)</i>	<i>iron (III)</i>	<i>gallium</i>	<i>silver</i>	<i>lead (IV)</i>
<i>chloride</i>	ZnCl ₂					
<i>acetate</i>						
<i>nitrate</i>						
<i>oxide</i>						
<i>nitride</i>						
<i>sulfate</i>						

Write the formulas for the following compounds:

- 1) copper (II) chloride _____
- 2) beryllium oxide _____
- 3) sodium sulphate _____
- 4) potassium permanganate _____

5) ammonium nitrate _____

Give the name of the following ionic compounds:

1) Na_2CO_3 _____

2) NaOH _____

3) MgBr_2 _____

4) KCl _____

5) FeCl_2 _____

6) FeCl_3 _____

7) Zn(OH)_2 _____

8) Be_2SO_4 _____

9) NH_4OH _____

10) Al_2S_3 _____

11) PbO _____

12) Li_3PO_4 _____

Write balanced molecular, ionic, and net ionic equations for each of the following reactions. Assume all reactions occur in aqueous solution. Include states of matter in your balanced equation.

1. Sodium chloride and lead II nitrate

Molecular Equation:

Complete Ionic Equation:

Net Ionic Equation

2. Sodium carbonate and Iron II chloride

Molecular Equation:

Complete Ionic Equation:

Net Ionic Equation:

3. Magnesium hydroxide and hydrochloric acid

Molecular Equation:

Complete Ionic Equation:

Net Ionic Equation:

4. Potassium chromate and calcium chloride

Molecular Equation:

Complete Ionic Equation:

Net Ionic Equation:

5. Ammonium phosphate and zinc nitrate

Molecular Equation:

Complete Ionic Equation:

Net Ionic Equation:

6. Lithium hydroxide and barium chloride

Molecular Equation:

Complete Ionic Equation:

Net Ionic Equation:

7. Sodium carbonate and hydrochloric acid produces sodium chloride, carbon dioxide and water

Molecular Equation:

Complete Ionic Equation:

Net Ionic Equation:

8. Magnesium nitrate and sodium chromate

Molecular Equation:

Complete Ionic Equation:

Net Ionic Equation:

9. Iron III chloride and magnesium metal

Molecular Equation:

Complete Ionic Equation:

Net Ionic Equation:

10. Barium Bromide and sodium sulfate

Molecular Equation:

Complete Ionic Equation:

Net Ionic Equation:

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WORKSHEET ANSWERS

1.

	<i>zinc</i>	<i>iron (II)</i>	<i>iron (III)</i>	<i>gallium</i>	<i>silver</i>	<i>lead (IV)</i>
<i>chloride</i>	ZnCl₂	FeCl₂	FeCl₃	GaCl₃	AgCl	PbCl₄
<i>acetate</i>	Zn(C₂H₃O₂)₂	Fe(C₂H₃O₂)₂	Fe(C₂H₃O₂)₃	Ga(C₂H₃O₂)₃	AgC₂H₃O₂	Pb(C₂H₃O₂)₄
<i>nitrate</i>	Zn(NO₃)₂	Fe(NO₃)₂	Fe(NO₃)₃	Ga(NO₃)₃	AgNO₃	Pb(NO₃)₄
<i>oxide</i>	ZnO	FeO	Fe₂O₃	Ga₂O₃	Ag₂O	PbO₂
<i>nitride</i>	Zn₃N₂	Fe₃N₂	FeN	GaN	Ag₃N	Pb₃N₄
<i>sulfate</i>	ZnSO₄	FeSO₄	Fe₂(SO₄)₃	Ga₂(SO₄)₃	Ag₂SO₄	Pb(SO₄)₂

Write the formulas for the following compounds:

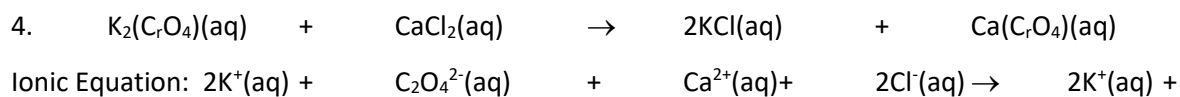
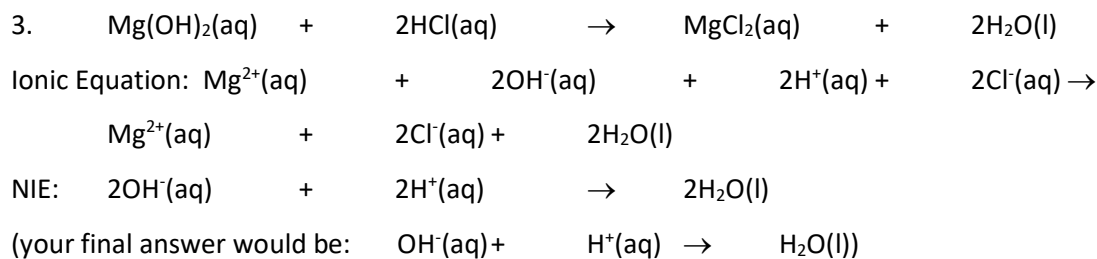
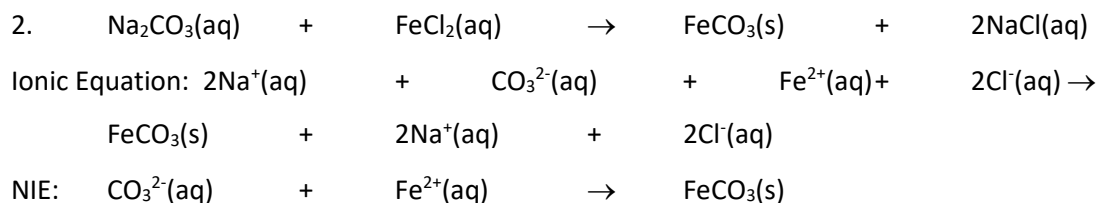
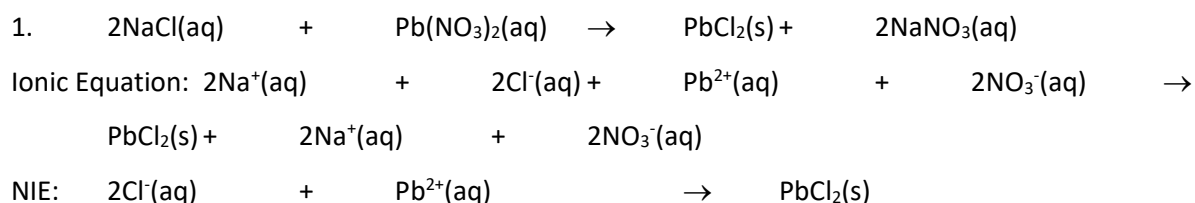
- 1) copper (II) chloride **CuCl₂**
- 2) beryllium oxide **BeO**
- 3) sodium sulfate **Na₂SO₄**
- 4) potassium permanganate **KMnO₄**
- 5) ammonium nitrate **NH₄NO₃**

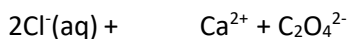
Give the name of the following ionic compounds:

- 1) Na₂CO₃ **sodium carbonate**
- 2) NaOH **sodium hydroxide**
- 3) MgBr₂ **magnesium bromide**
- 4) KCl **potassium chloride**
- 5) FeCl₂ **iron (II) chloride**

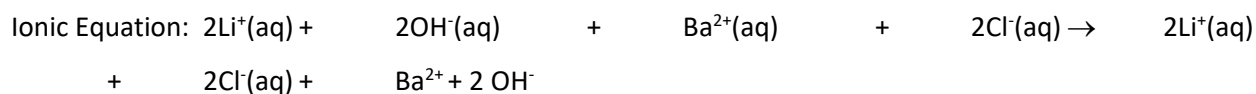
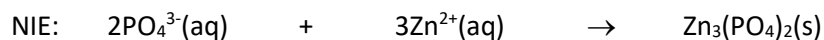
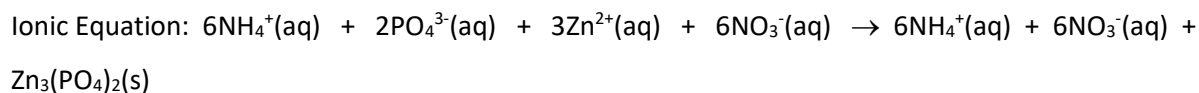
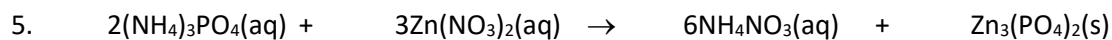
- 6) FeCl_3 **iron (III) chloride**
- 7) Zn(OH)_2 **zinc hydroxide**
- 8) Be_2SO_4 **beryllium sulfate**
- 9) NH_4OH **ammonium hydroxide**
- 10) Al_2S_3 **aluminum sulphide**
- 11) PbO **lead (II) oxide**
- 12) Li_3PO_4 **lithium phosphate**

Net Ionic Equation Worksheet - Answers





NIE: NA all spectator ions



NIE: Na all spectator ions

