

Writing Balanced Chemical Formulas Assignment



Identify the charges that the ions would have and create a balanced chemical formula

Metal (Cation)	Non-metal (Anion)	Balanced Chemical Formula
K	O	
Ca	Br	
Mg	N	
Na	S	
Al	P	
Copper (II)Cu	O	
Nickel (III) Ni	Br	
Zn	N	
Cobalt (III).....	S	
Manganese (II)....	I	
K	SO ₄	
Nickel (III) Ni	CO ₃	
NH ₄	PO ₄	
Copper (II)Cu	OH	

Naming Ionic Compounds

Name the following ionic compounds

1. Na_2O _____
2. Ag_2O _____
3. NaI _____
4. Li_2I _____
5. NaBr _____
6. CaF_2 _____
7. AgS _____
8. AlBr_3 _____
9. CuO _____
10. BaI_2 _____
11. Al_2O_3 _____
12. ZnBr _____
13. PbCl_2 _____
14. Li_3N _____

Compound with: 2 Elements

First element + Second element's + ide
first syllable

ex) MgO

Magnesium Oxide

Name the following ionic *polyatomic* compounds

1. NaNO_2 _____
2. Ag_2CrO_4 _____
3. NaOH _____
4. $\text{Ca}_3(\text{PO}_4)_2$ _____
5. Na_2SiO_3 _____
6. CaCrO_4 _____
7. Ag_2SO_4 _____
8. LiBrO_3 _____
9. CuSO_4 _____
10. $\text{Ba}(\text{MnO}_4)_2$ _____
11. AlNO_3 _____
12. ZnSO_3 _____

Compound with: 3+ Elements

Name the first element or cation (if there are two elements in brackets at the front check your sheet for its name)

Name the anion: check your sheet for its name

ex) $\text{Mg}(\text{NO}_3)_2$ Magnesium Nitrate

ex) $(\text{NH}_4)_2\text{CO}_3$ Ammonium Carbonate

Naming Compounds That Include Transition Metals

Name the following compounds using the correct valence form.

PbCl₂ _____

CuCl₂ _____

Fe₂O₃ _____

CuCl _____

PbO₂ _____

Cr(NO₃)₂ _____

TiBr₃ _____

Compound: Polyatomic Elements

Name the first element or cation (if there are two elements in brackets at the front check your sheet for its name)

Name the anion: check your sheet for its name

ex) Cu(NO₃)₂ Copper Nitrate

Cu NO₃⁻¹ so if NO₃ has a 2 after it.....

Copper (II) Nitrate

Check their amount of atoms and determine which version or original charge it had

Chemical Formula Worksheet

Complete the chart by filling in the correct chemical formula or correct name.

<i>Name</i>	<i>Formula</i>	<i>Formula</i>	<i>Name</i>
Magnesium Fluoride		CaF ₂	
Lithium Chloride		KBr	
Calcium Chloride		CuCl	
Copper (I) Iodide		CuCl ₂	
Potassium Bromide		CuO	
Aluminum Oxide		AlCl ₃	
Iron(II) Oxide		AgCl	
Aluminum Sulfide		MgI ₂	
Sodium Chloride		NaBr	
Barium Chloride		ZnCl ₂	
Iron (III) Sulfate		LiF	
Iron (III) Sulfide		PbO ₂	
Sodium Hydroxide		AgNO ₃	
Ammonium Bromide		Na ₂ CO ₃	
Potassium Sulfate		(NH ₄) ₂ SO ₄	
Sulfuric Acid		KNO ₃	

SCIENCE 10 ASSIGNMENT
CHEMICAL FORMULAS

WRITE the chemical formulas for the following:

1. silver nitrate	
2. zinc hydroxide	
3. potassium permanganate	
4. cobalt bromide	
5. iron III oxide	
6. lead II chloride	
7. barium sulfide	
8. iron II nitrite	
9. nickel iodide	
10. aluminum chromate	
11. copper II sulfate	
12. sodium fluoride	
13. lead II chlorate	
14. chromium III sulfite	
15. calcium fluoride	
16. mercury II oxide	
17. aluminum sulfide	
18. lithium hydroxide	
19. magnesium nitrite	
20. iron III sulfide	
21. sodium bicarbonate	
22. aluminum fluoride	
23. hydrogen peroxide	
24. ammonium chloride	
25. hydrogen phosphate	

NAMING IONIC COMPOUNDS

Name _____

Name the following compounds using the Stock Naming System.

