

Name Key Binary Formula Writing Sheet

Using what you learned in the "Molecule Maker Labs", complete the chart by writing the correct formulas for the following compounds.

Name of Compound	Positive ion	Negative ion	Formula
1. Sodium Iodide	Na ⁺	I ⁻	NaI
2. Silver sulfide	Ag ⁺	S ²⁻	Ag ₂ S
3. Barium sulfide	Ba ²⁺	S ²⁻	BaS
4. Lithium sulfide	Li ⁺	S ²⁻	Li ₂ S
5. Sodium oxide	Na ⁺	O ²⁻	Na ₂ O
6. Ammonium Aluminum chloride	Al ³⁺	Cl ⁻	AlCl ₃
7. Zinc sulfide	Zn ²⁺	S ²⁻	ZnS
8. Magnesium iodide	Mg ²⁺	I ⁻	MgI ₂
9. Potassium bromide	K ⁺	Br ⁻	KBr
10. Rubidium astatide	Rb ⁺	At ⁻	RbAt
11. Radium sulfide	Ra ²⁺	S ²⁻	RaS
12. Cesium phosphide	Cs ⁺	P ³⁻	Cs ₃ P
13. Beryllium fluoride	Be ²⁺	F ⁻	BeF ₂
14. magnesium phosphide	Mg ²⁺	P ³⁻	Mg ₃ P ₂
15. aluminum nitride	Al ³⁺	N ³⁻	AlN
16. sodium phosphide	Na ⁺	P ³⁻	Na ₃ P
17. aluminum telluride	Al ³⁺	Te ²⁻	Al ₂ Te ₃
18. Potassium fluoride	K ⁺	F ⁻	KF
19. Lithium nitride	Li ⁺	N ³⁻	Li ₃ N
20. Barium iodide	Ba ²⁺	I ⁻	BaI ₂

Key

Assign 4
p2

Compound made of	Positive ion	Negative ion	Formula	Compound Name
1. calcium and nitride	Ca^{2+}	N^{3-}	Ca_3N_2	Calcium nitride
2. Beryllium and chloride	Be^{2+}	Cl^{-}	BeCl_2	Beryllium chloride
3. Magnesium and carbonide	Mg^{2+}	C^{4-}	Mg_2C	Magnesium carbonide
4. barium and bromide	Ba^{2+}	Br^{-}	BaBr_2	Barium bromide
5. Francium and sulfide	Fr^{1+}	S^{2-}	Fr_2S	Francium sulfide
6. Sodium and Nitride	Na^{1+}	N^{3-}	Na_3N	Sodium nitride
7. Lithium and phosphide	Li^{1+}	P^{3-}	Li_3P	Lithium phosphide
8. Sodium and Fluoride	Na^{1+}	F^{-}	NaF	Sodium Fluoride
9. Rubidium and Phosphide	Rb^{1+}	P^{3-}	Rb_3P	Rubidium phosphide
10. magnesium and astatide	Mg^{2+}	At^{1-}	MgAt_2	Magnesium astatide
11. silver and sulfide	Ag^{1+}	S^{2-}	Ag_2S	Silver sulfide
12. barium and oxide	Ba^{2+}	O^{2-}	BaO	Barium oxide
13. magnesium and fluoride	Mg^{2+}	F^{-}	MgF_2	Magnesium fluoride
14. Sodium and arsenide	Na^{1+}	As^{3-}	Na_3As	Sodium arsenide
15. Lithium and Telluride	Li^{1+}	Te^{2-}	Li_2Te	Lithium Telluride

Key

In class folder work p. 2

Compound made of	Atoms of each element	Formula
1. hydrogen and sulfur H^{1+} S^{2-}	<u>2</u> atom(s) of H <u>1</u> atom(s) of S	H_2S
2. calcium and chlorine Ca^{2+} Cl^{-}	<u>1</u> atom(s) of Ca <u>2</u> atom(s) of Cl	$CaCl_2$
3. sodium and phosphorus Na^{1+} P^{3-}	<u>3</u> atom(s) of Na <u>1</u> atom(s) of P	Na_3P
4. aluminum and sulfur Al^{3+} S^{2-}	<u>2</u> atom(s) of Al <u>3</u> atom(s) of S	Al_2S_3
5. magnesium and oxygen Mg^{2+} O^{2-}	<u>1</u> atom(s) of <u>Mg</u> <u>1</u> atom(s) of <u>O</u>	MgO
6. aluminum and chlorine Al^{3+} Cl^{-}	<u>1</u> atom(s) of <u>Al</u> <u>3</u> atom(s) of <u>Cl</u>	$AlCl_3$
7. magnesium and fluorine Mg^{2+} F^{-}	<u>1</u> atom(s) of <u>Mg</u> <u>2</u> atom(s) of <u>F</u>	MgF_2
8. sodium and sulfur Na^{1+} S^{2-}	<u>2</u> atom(s) of <u>Na</u> <u>1</u> atom(s) of <u>S</u>	Na_2S
9. hydrogen and oxygen H^{1+} O^{2-}	<u>2</u> atom(s) of <u>H</u> <u>1</u> atom(s) of <u>O</u>	H_2O
10. aluminum and oxygen Al^{3+} O^{2-}	<u>2</u> atom(s) of <u>Al</u> <u>3</u> atom(s) of <u>O</u>	Al_2O_3
11. calcium and phosphorus Ca^{2+} P^{3-}	<u>3</u> atom(s) of <u>Ca</u> <u>2</u> atom(s) of <u>P</u>	Ca_3P_2
12. calcium and oxygen Ca^{2+} O^{2-}	<u>1</u> atom(s) of <u>Ca</u> <u>1</u> atom(s) of <u>O</u>	CaO

Key

Assign 4
p4

Formula	Name	Formula	Name
1. KCl	Potassium chloride	16. LiCl	Lithium chloride
2. K ₂ O	Potassium oxide	17. BaO	Barium oxide
3. CaO	Calcium oxide	18. AlAs	Aluminum Arsenide
4. MgCl ₂	Magnesium chloride	19. MgF ₂	Magnesium fluoride
5. NaH	Sodium hydride	20. K ₂ Te	Potassium telluride
6. RbBr	Rubidium bromide	21. Ca ₃ As ₂	Calcium arsenide
7. Al ₂ O ₃	Aluminum oxide	22. AlN	Aluminum nitride
8. Na ₃ N	Sodium nitride	23. KF	Potassium fluoride
9. Ca ₂ C	Calcium carbide	24. BaI ₂	Barium iodide
10. KI	Potassium iodide	25. RaO	Radium oxide
11. AlCl ₃	Aluminum chloride	26. CsSe	Cesium selenide
12. SrF ₂	Strontium fluoride	27. MgTe	Magnesium telluride
13. CsCl	Cesium chloride	28. ZnCl ₂	Zinc chloride
14. Mg ₃ P ₂	Magnesium phosphide	29. AgBr	Silver bromide
15. Rb ₂ O	Rubidium oxide	30. CdO	Cadmium oxide