Chemistry Worksheet
Nomenclature

Name: KEY
Block: _____

III. Naming and Empirical Formulas for Binary Ionic Compounds

a. Sodium bromide	NaBr	n. Li_3N	lithium nitride
b. Calcium chloride	$CaCl_2$	o. K_2S	potassium sulfide
c. Sodium sulfide	Na_2S	p. $BaCl_2$	barium chloride
d. Magnesium sulfide	MgS	q. AgI	Silver iodide
e. Potassium iodide	KI	r. $PbCl_2$	lead (II) chloride
f. Aluminum fluoride	AlF_3	s. Na_2O	sodium oxide
g. Aluminum oxide	Al_2O_3	t. Mg_3P_2	magnesium phosphide
h. Calcium oxide	CaO	u. $MgBr_2$	magnesium bromide
i. Potassium oxide	K_2O	v. Fe_2O_3	iron (III) oxide
j. Iron (II) chloride	$FeCl_2$	w. LiCl	lithium chloride
k. Silver iodide	AgI	x. PbO_2	lead (IV) oxide
l. Mercury (I) sulfide	Hg_2S	y. CuS	copper (II) sulfide
m. Iron (III) bromide	$FeBr_3$	z. FeO	iron (II) oxide

IV. Naming and Empirical Formulas for Ternary Ionic Compounds

a. Ammonium chloride	NH_4Cl	j. $AgClO_3$	Silver Chlorate
b. Ammonium sulfide	$(NH_4)_2S$	k. KOH	potassium hydroxide
c. Sodium hydroxide	NaOH	l. KNO_3	potassium nitrate
d. Magnesium sulfate	$MgSO_4$	m. $BaSO_4$	barium sulfate
e. Sodium phosphate	Na_3PO_4	n. KCl	potassium chloride
f. Aluminum sulfate	Al_2S_3	o. $CaBr_2$	Calcium bromide
g. Aluminum phosphate	$AlPO_4$	p. Na_2O	Sodium oxide
h. Calcium carbonate	$CaCO_3$	q. $Mg_3(PO_4)_2$	magnesium phosphate
i. Potassium nitrate	KNO_3	r. $Al_2(CO_3)_3$	aluminum carbonate

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I. Names and Charges of Monatomic Ions (excluding those derived from transition and post transition elements):

	Name of ion	Metallic ion or non-metallic ion	Formula
a.	magnesium ion	metallic	Mg^{2+}
b.	potassium ion	metallic	K^{+}
c.	iodide	non-metallic	I^{-}
d.	oxide	non-metallic	O^{2-}
e.	calcium ion	metallic	Ca^{2+}
f.	phosphide	non-metallic	P^{3-}
g.	chloride	non-metallic	Cl^{-}
h.	selenide	non-metallic	Se^{2-}
i.	lithium ion	metallic	Li^{+}
j.	bromide	non-metallic	Br^{-}
k.	barium ion	metallic	Ba^{2+}
l.	nitride	non-metallic	N^{3-}
m.	strontium ion	metallic	Sr^{2+}
n.	lithium ion	metallic	Li^{+}
o.	sulfide	non-metallic	S^{2-}
p.	oxide	non-metallic	O^{2-}
q.	cesium ion	metallic	Cs^{+}
r.	hydride	non-metallic	H^{-}
s.	rubidium ion	metallic	Rb^{+}

II. Fill in the Blanks

Positive ions, also known as cations, are derived from metals, while negative ions, also known as anions, are derived from nonmetals.

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