Name _____ Period _____

College Prep Chemistry of the Earth

Assignment 4J – Writing Single Replacement Reactions 20 Points

Answer the following questions based on single replacement reactions

Define *Single Replacement Reaction*	Define *Chemical Activity*

For the following reactions, write the products of each reaction following the template provided. Show work for ionic compound

Reaction	$Ca + Na_2O \rightarrow$ _____ + _____				
A + BC → AC + B					
A	Ca	BC	Na_2O	B	Na

Formula	A (2A)	C (6A)
Ion Charge	+2	−2
Cross Method	Ca O	
AC	Ca_2O_2 → CaO (Reduce!)	

↓ not Na_2

Reaction	$Al + CaBr_2 \rightarrow$ _____ + _____				
A + BC → AC + B					
A	Al	BC	$CaBr_2$	B	Ca

Formula	A (3A)	C (7A)
Ion Charge	+3	−1
Cross Method	Al Br	
AC	$AlBr_3$	

Single letter = single atom or ion (except diatomic)

Two letter = write as given

Ca	Br_2
B	C

Reaction	$Mg + Ba_3N_2 \rightarrow$ _____ + _____				
A + BC → AC + B					
A		BC		B	

Formula	A	C
Ion Charge		
Cross Method		
AC		

Reaction	$K + H_3P \rightarrow$ _____ + _____				
A + BC → AC + B					
A		BC		B	

Formula	A	C
Ion Charge		
Cross Method		
AC		

Zn = +1

Reaction	$Zn^{1+} + MgS \rightarrow$ _____ + _____				
A + BC → AC + B					
A	Zn	BC	MgS	B	Mg

Formula	A	C
Ion Charge	+1	−2
Cross Method	Zn S	
AC	Zn_2S	

Reaction	$Pb^{4+} + Li_3N \rightarrow$ _____ + _____				
A + BC → AC + B					
A		BC		B	

Formula	A	C
Ion Charge		
Cross Method		
AC		

Reaction	$V^{3+} + CuCl_2 \rightarrow$ _____ + _____				
A + BC → AC + B					
A		BC		B	

Formula	A	C
Ion Charge		
Cross Method		
AC		

Reaction	$Fe^{2+} + SnO_2 \rightarrow$ _____ + _____				
A + BC → AC + B					
A		BC		B	

Formula	A	C
Ion Charge		
Cross Method		
AC		

Reaction	$W^{6+} + CoF_2 \rightarrow$ _____ + _____				
A + BC → AC + B					
A		BC		B	

Formula	A	C
Ion Charge		
Cross Method		
AC		

Reaction	$H_2 + Nb_2S_3 \rightarrow$ _____ + _____				
A + BC → AC + B					
A		BC		B	

Formula	A	C
Ion Charge		
Cross Method		
AC		