

WS 4.6 Types of Reactions

Complete the reactions by writing the products. *Remember* : when you form an element, don't forget about the 7 diatomic gases (N_2 , O_2 , F_2 , H_2 , Cl_2 , Br_2 , I_2) & to balance ionic formulas (drop & swap)

Composition Reactions	Decomposition Reactions	Single Replacement Reactions
1. $Na + Cl_2 \rightarrow$	6. $MgO \rightarrow$	11. $AgCl + Mg \rightarrow$
2. $K + O_2 \rightarrow$	7. $AlCl_3 \rightarrow$	12. $Ca + FeF_3 \rightarrow$
3. $H_2 + F_2 \rightarrow$	8. $H_2O \rightarrow$	13. $HCl + Al \rightarrow$
4. $Li + N_2 \rightarrow$	9. $CaS \rightarrow$	14. $KBr + Li \rightarrow$
5. $Ca + Cl_2 \rightarrow$	10. $NF_3 \rightarrow$	15. $K + Al_2O_3 \rightarrow$
Double Replacement Reactions	Combustion Reactions	
16. $CaCl_2 + Al_2O_3 \rightarrow$	21. $CH_4 + O_2 \rightarrow$	
17. $LiCl + Pb(NO_3)_2 \rightarrow$	22. $C_5H_{12} + O_2 \rightarrow$	
18. $Na_2SO_4 + CaCl_2 \rightarrow$	23. $O_2 + C_6H_6 \rightarrow$	
19. $HCl + K_3PO_4 \rightarrow$	24. $C_2H_5OH + O_2 \rightarrow$	
20. $HBr + Ca(OH)_2 \rightarrow$	25. $C_{12}H_{22}O_{11} + O_2 \rightarrow$	

Determine the products & identify the type of reaction using these abbreviations in the spaces at left:

(**CP**=composition, **DC**=decomposition, **SR**=single replacement, **DR**=double replacement, **CB**=combustion)

*** don't forget to check the activity series (at right) for single replacement reactions ***



Li
K
Ca
Na
Mg
Al
Mn
Zn
Cr
Fe
Cd
Co
Ni
Sn
Pb
H
Cu
Hg
Ag
Pt
Au