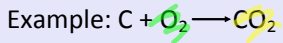
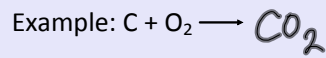
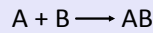


23-3 Classifying Chemical Reactions

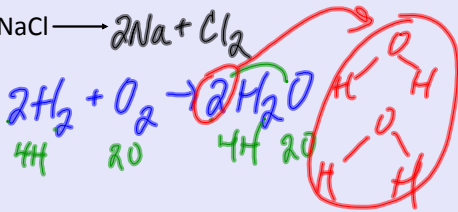
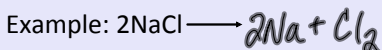
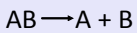
1. **Combustion Reaction:** a substance reacts with oxygen to produce energy as heat and light - produces CO₂ and/or water as products



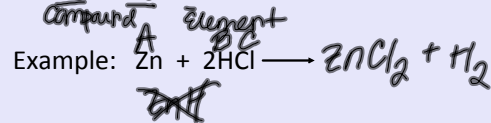
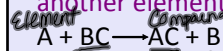
2. **Synthesis Reactions:** two or more substances combine to form one substance



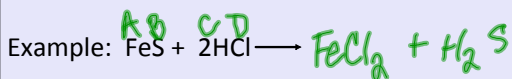
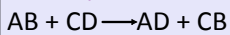
3. **Decomposition Reactions:** one substance breaks down into 2 or more substances



4. **Single Displacement:** one element replaces another element in a compound



5. **Double Displacement:** 2 substances replace or switch places in compounds



1. $C(s) + O_2(g) \rightarrow CO_2(g)$ *Combustion*
2. $AlCl_3(s) + 3K(s) \rightarrow Al(aq) + 3KCl(aq)$ *Synthesis*
3. $2Mg(s) + O_2(g) \rightarrow 2MgO(s)$ *Synthesis*
4. $2LiBr + Pb(NO_3)_2 \rightarrow 2LiNO_3 + PbBr_2$ *Double*
5. $CaO + H_2O \rightarrow Ca(OH)_2$ *Synthesis*
6. $NiCl_2 \rightarrow Ni + Cl_2$ *Decomposition*
7. $SO_3 + H_2O \rightarrow H_2SO_4$ *Synthesis*