7B - CHEMICAL REACTIONS

Part 1 Analysis – Qualitative observations

Table 1 – Qualitative observations

Trial Mixture	Chemical Reaction	Observation
A	$CaCl_2(aq) + Na_3PO_4(aq) \rightarrow$	
B	$CuCO_3(s) \rightarrow$	
C	$Mg(s) + HCl(aq) \rightarrow$	
D	$HCl(aq) + Na_2CO_3(aq) \rightarrow$	
E	$Sr(OH)_2 + NH_4Cl(s) \rightarrow SrCl_2(aq) + NH_3(aq) + H_2O(l)$	
F	$Zn(s) + CuSO_4(aq) \rightarrow$	
G	$HCl(aq) + NaOH(aq) \rightarrow$	
H	$Mg(s) + O_2(g) \rightarrow$	

Part 2 Analysis – Quantitative observations

Table 2 – Quantitative observations

Trial Mixture	Chemical Reaction	Temperature		pH		Conductivity	
		Initial	Final	Initial	Final	Initial	Final

Questions

1. What were the most common observations made to indicate that a chemical reaction had taken place?

2. Did making the measurements provide any additional evidence that a reaction was taking place?

3. Use the chemical reactions in Table 1 to identify at least one clear-cut example of the following types of reactions:

   Synthesis reaction –

   Decomposition reaction –

   Single replacement –

   Double replacement –

4. In Part 1 trials B, C, and D, after the reactants were mixed, you placed a flaming splint into the opening of the test tube. What did you observe? What would have caused this observation? Explain.