Y13 – Enthalpy and Entropy

Stick this checklist into your yellow book at the beginning of the topic. Tick off the topics as you cover them.		
In this module you are expected to be able to…	In Notes	Revised
• Define the terms ○ Lattice enthalpy, enthalpy change of solution, enthalpy change of hydration, electron affinity, entropy.		
• Explain lattice enthalpy as a measurement of the strength of an ionic bond.		
• Construct simple Born-Haber cycles (e.g. $CaCl_2$ or MgO).		
• Calculate enthalpy changes from Born-Haber cycles.		
• Construct enthalpy cycles involving enthalpy changes of solution and hydration.		
• Calculate enthalpy changes from these cycles.		
• Explain the patterns in enthalpy changes of lattice enthalpy and hydration enthalpy in terms of ionic charge and ionic radius.		
• Explain the general change in entropy for each change of state.		
• Explain the change in entropy when gas molecules are used up or produced in reactions.		
• Calculate entropy changes for reactions given entropy of products and reactants, and calculate entropy of products/reactants given entropy change and other relevant data.		
• Explain how feasibility is related to Gibbs free energy, and the limitations of predictions made.		
• Calculate free energy and other values including max/min T using the Gibbs equation.		

Pre-test Evaluation

I have…	
Updated my yellow book notes	
Ensured I understand all of my notes	
Looked on the open drive for additional work	
Asked my teacher for guidance	
Confidence rating	I'm doomed! -- - = + ++ I am the BOSS!