***Year 13 Chemistry Class Activities – Week 8***

At the end of the class, students should be able to;

* Explain how endothermic and exothermic reactions relate to bond making and bond breaking processes
* Calculate enthalpy change using the bond enthalpy for each reactant and product.

***Student Activities.***

* First 20 minutes; watch the YouTube videos (2) on Endothermic and exothermic reactions and on Bond energies.

Link 1: youtube.com/watch?v=OTm6JmeYX5g (Bond energy)

Link 2: youtube.com/watch?v=JRIm\_a2LDPM (Endothermic and Exothermic reactions)

* Refer to pg 40-41 of the handout given to them already
* Must go over the few steps on how to calculate the enthalpy of reaction using bond energy.
1. Use the structural formula for all the reactants and products to identify the bonds that will break and the ones that will form
2. Calculate the sum of bonds broken and the sum of bonds formed
3. Calculate the overall reaction enthalpy by subtracting sum of bonds broken with sum of bonds formed
* Do activity 4D on page 41-42 ; number 1-4
* Cross check your answers with the solution below.

Solutions to activity 4D

(check next page)

