SHS LEARNING ACTIVITY

CHEM1-06-02

Name: _____ **Score/Mark:** _____

Grade and Section: _____ **Date:** _____

Strand: ☐ **STEM** ☐ **ABM** ☐ **HUMSS** ☐ **ICT (*TVL Track*)**

Type of Activity : ☐Concept Notes ☐Skills: Exercise/Drill ☐ Illustration ☐Laboratory Report ☐Essay/Task Report ☐Other: _____

Activity Title: 06-02.Balancing equations v02

Learning Target: To practice balancing equations

Authors|References: Victor Sojo | sky-web: bit.ly/2C1mltt
Wikipedia: Hydrazine; Nitrogen pentoxide.

If a solution to the balancing is not obvious, a good trick is to follow this order: 1)Metals, 2)Nonmetals (except H and O), 3)Hydrogen, and lastly 4)Oxygen. It doesn't always work, but often it does. Another trick if the previous fails is to leave a pure element (such as Cl_2, O_2, H_2 or F_2) for the end, since multiplying it won't affect any other element.

Practice makes perfect! Let's balance a few equations (remember to **always make sure that the number of atoms of each element is the same on both sides! Count again after you finish balancing!**):

$Na + Cl_2 \longrightarrow NaCl$

$Zn + HCl \longrightarrow ZnCl_2 + H_2$

$C_2H_5OH + O_2 \longrightarrow CO_2 + H_2O$

$Al_2(CO_3)_3 + H_3PO_4 \longrightarrow AlPO_4 + CO_2 + H_2O$

$C_6H_{12}O_6 + O_2 \longrightarrow CO_2 + H_2O$

$FeCl_3 + NH_3 + H_2O \longrightarrow Fe(OH)_3 + NH_4Cl$

$NH_3 + H_2O_2 \rightarrow N_2H_4 + H_2O$

$S_8 + F_2 \longrightarrow SF_6$

$P_4O_{10} + HNO_3 \longrightarrow H_3PO_4 + N_2O_5$

$C_4H_{10} + O_2 \longrightarrow CO_2 + H_2O$

$(H_2N)_2CO + NaOCl + NaOH \longrightarrow N_2H_4 + H_2O + NaCl + Na_2CO_3$