PROJECT WORK- 5

ATOMS AND MOLECULES

Some items to be given as project work for class-09 students.
They can do any one of the following. The report should be in at least two A4 pages.

1. Collect information about the chemicals used in your Kitchen. Make a list with their general names, Chemical names and write their formulae.
2. Make play cards with symbols and valencies of the atoms of the elements separately. Each student should hold two play cards, one with the symbol in the right hand and the other with the valency in the left hand. Keeping the symbols in place, students should criss-cross their valencies to form the formula of a compound.

   (OR)

   Write the symbols and valencies of some elements. Select any two elements. Write the formula of the compound formed by that two elements according to criss - cross method. Write the formulae of all compounds in such a way. You're your results in a tabular form.
3. Take empty blister packs of medicines. Cut them into pieces having single hallow strip, double hallow strip , triple hallow strip. Divide them into groups according to the valancies. Assume that the number of hallow rounds of strips represents valency of an ion.

   Example: strip having one hallow round represents single valency ions like Na^+, Cl^-, H^+ etc., Simlarly the remaining strips having two hallow rounds and three hallow rounds represents double and triple valency ions.

   Now you can make the formulae by fixing one type of strip into other.

   For example two sodium ion strips (Single hallow strips) can be fixed in one carbonate ion strip (double hallow strip) . Hence the formula of sodium carbonate will be Na_2CO_3.

   (Prepare strips for K^+, Na^+, H^+, F^-, Cl^-, Br^-, O^{-2}, S^{-2}, N^{-3}, C^{-4}, OH^-, CO_3^{-2},……..)
4. Collect information about elements and symbols. Also collect the atomic numbers and atomic weights of them. If possible collect the information about the name scientist and year of discovery of elements.

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