



Enseignement secondaire		
Classes internationales		
	Régime anglophone	
Chimie		
Programme		
4IEC		
Leçons hebdomadaires: 1,5		
Langue véhiculaire: anglais		
Nombre minimal de devoirs par trimestre: 1		

Aims :

- To lay the foundation for sciences studies
- To develop scientific culture, scientific interests and curiosity
- To prepare chemistry teaching for the IB diploma

Skills and objectives

- To develop the ability of observation
- To promote precise formulation
- To initiate scientific reasoning
- To develop manual skills in experimentation



Syllabus for the chemistry course

1. States of matter (recall)

- Introduction to particles
- Solids, liquids and gases
- Pure substances and mixtures
- Different separation methods

2. Structure of atoms

- Difference between atom and element
- Isotopes and particles in an atom
- Electronic structure of the atoms, shells
- Lewis structure

3. Bonding in atoms

- Ionic bonding
- Introduction to ions, charges and names of ionic compounds
- Properties of ionic compounds
- Covalent compounds and giant covalent compounds
- Bonding in metals

4. Periodic table

- Reactivity of some groups (alkali metals, halogens, noble gases)
- Short introduction to transition metals

5. Introduction to chemical formulae, names of chemical substances and equations.

- Standard names and formulae used for covalent substances, ionic substances, substances with transition metals
- Starting the chemical equation

6. Introduction to stoichiometric calculations

- Introduce the relation between:
 - amount and mass
 - amount and number of particles, Avogadro's constant
 - amount and Volume, molar volume
- Introduction with calculations based on a chemical equation

The students should get used to do practical work and do written reports on computer.