Enseignement secondaire		
Classes internationales		
	Régime anglophone	
Chimie		
Programme		
7IEC		

Leçons hebdomadaires: 1,5
Langue véhiculaire: anglais
Nombre minimal de devoirs par trimestre: 1

Theory

	Topic	Teaching hours	Contents	Methods
0	Introduction	2	Explain chemistry	
1	Solids, liquids and gases.	4	State of matter	- Describe, give properties and define solid, liquid and gas. - Identify materials that are difficult to classify as solids, liquids or gases.
2	Mixtures and separations	8	Mixtures	- Classify and define different mixtures (suspension, emulsion, colloid, solution). - Define solubility, solvent, solute, - Describe how soluble substances can form solutions. - Identify the solute and solvent in a solution. - Describe the effects of different variables (solvent/temperature) on solubility.

			Separation	- Introduction to separation methods, use diagrams to draw apparatus (drawings should be done in 2D, use ruler and pencil) - Separation liquids-solids (cleaning waste water, filtration, settlement) - Describe differences between evaporation and boiling. (Production of table salt). Explain how distillation can be used to separate a solvent from a solution. (Desalination of sea water)
3	Acidic and alkaline solutions	8	Indicators Acidity and alkalinity. Neutralisation.	- Name examples of indicators made from plants. - Describe how indicators can be used to test for acidic, alkaline or neutral solutions. - Name some common examples of acids and alkalis. - Describe the pH scale and how it is useful. Describe how pH can be measured. - Describe what happens during neutralisation. - Write word equation for neutralisation reactions. - Explain the pH changes taking place during neutralisation. - Describe and explain some everyday neutralisation reactions.

4	Solids, liquids and gases	8	States of matter	- Name the different states of matter - Describe the properties of the states - Identify materials difficult to classify
			Hypotheses and theories	- Identify scientific questions, hypotheses and predictions - Describe how to develop a hypothesis into a theory - Explain how evidences are used to support a given theory
			Matter is made of particles, states of particles	- Recognise that all matter is made up of particles - Describe, draw and recognise the arrangement of particles in the 3 states
			Brownian motion	- Use the particle theory to explain the properties - Explain Brownian motion
			Diffusion	- Unit conversations, (nm, µm, mm, m) - Explain diffusion and its effects - Explain the different rates for diffusion

Practical work

	Topic	**Teaching hours**	**Contents**	**Methods**
1	Safety in the lab.	1	Hazards Controlling risks.	Recognize some common hazard symbols. Explain why hazard symbols are necessary. Recognize some common acids. Plan and explain safety precautions. Recognize hazards and explain how the risks can be controlled.
2	The Bunsen burner	2	Safety when heating.	Describe how a Bunsen burner is used. Identify hazards and describe how to reduce risks.
3	Lab equipment	1	Glass material	Show different lab equipment to the students, make drawings of equipment using a pencil and a ruler
4	Separation methods 1	2	Evaporation Sedimentation Filtration	Describe how solutes can be separated from a solution by evaporation. Separate a salt-water mixture. Separate a sand-water mixture. Structure a method in a clear way. Use diagrams to draw apparatus.
5	Solutions	1		Work out graphs on solubility. (Solubility of a salt at different temperatures)
6	Separation methods 2	2	Chromatography Distillation	Define chromatography and describe how it can be used to identify substances in a mixture. Paper chromatography with different inks. Distillation of wine.

7	Acidic and alkaline solutions.	2	Indicators pH Neutralisation	Production of red cabbage indicator. Reaction of red cabbage indicator with different solutions and products from daily life. Measurement of pH using test paper. Preparation of sodium chloride from a neutralisation.
8	States of matter	1	Compare states	Experiments that show the different properties of the 3 states (diffusion, compressibility, fluidity…)
9	Waste	1	Separate different wastes	Show how different plastic material could be separated (by density), metals
10	Data analysis	2	Make different kinds of graphs	Use experiments to draw graphs - Heating water(t° versus time) - Burning candle experiment - …