**Unit B: Chemistry and the Environment**

 **Chapter 1: Acid Deposition**

* Combustion Reactions
	+ Reactants and products
	+ Hydrocarbons
	+ Emissions
	+ Fuel
	+ Balancing equations
	+ Oxides
		- Sulfur, nitrogen and carbon
	+ Incomplete vs. Complete combustion
	+ Particulate Matter
* Acids and bases
	+ What are some descriptors of acids/bases
	+ Titrations
		- How to calculate an unknown concentration
	+ Bronsted-Lowry definition of acids and bases
	+ Arrhenius’s definition of acids and bases
		- Limitations of the theory
	+ Acid base indicators and distinguishing strength of acid and base
* Calculating pH and the pH scale
	+ Log formula
* Acid Deposition and effects
	+ Jet Stream
	+ Lime stone vs. Sedimentary Rock
	+ Metal Leaching
	+ Plant nutrients
	+ Expressing concentrations (ppm and ppb)
* Reducing Emissions
	+ Scrubbers
	+ Catalytic Converters
	+ Photochemical Smog

**Chapter 2: The chemical legacy of human activity**

* Organic Compounds
	+ Alkane, Alkene, Alkyne
	+ Halogenated Hydrocarbons
		- Process of Ozone Depletion (CFC’s)
	+ Alcohols
	+ Esters
	+ Carboxylic Acids
	+ Polyesters and bio-plastics
* Bio-magnification
* Understanding Exposure
	+ Off-gassing
	+ Pesticides
	+ Target specificity
	+ Drift
	+ Grasshopper effect
	+ Persistence