**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