Unit B: Chemistry

**TOTAL NUMBER OF DAYS FOR UNIT: 21**

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| **Legend of Abbreviations used in table** |
| GO 1 | 1. Analyze the sources of acids and bases and their effects on the environment |
| GO 2 | 2. Analyze the sources of organic compounds and their effects on the environment |
| GO 3 | 3. Analyze, from a variety of perspectives, the risks and benefits of using chemical processes in meeting human needs and assess technologies for reducing the impact of chemical compounds on the environment.  |

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| **Day** | **GO** | **Topics being covered** |
| **1** | **GO 1** | Topic 1.1 – Products of combustion reactions * Hydrocarbon combustion
* Incomplete and Complete combustion
* Oxides of carbon, nitrogen and sulfur

Assignment:Page 160 #7 and 8 |
| **2** | **GO 1** | Topic 1.1 – continued* Issues with combustion
* Balancing combustion reactions

Topic 1.2 – Introduce Chemistry of acids and bases* Ionic, Molecular, Acid, Base

Assignment:Page 164 #1-8Lab Set up (Testing Aqueous Solutions) |
| **3** | **GO 1** | **LAB: Testing Aqueous Solutions*** Chart: Acid, Base, Neutral
* Vocabulary: Solute, Electrolytic Solutions, Ionic Compounds, Molecular Compounds
 |
| **4** | **GO 1** | Topic 1.2 Continued* Acid Naming Rules
* Arrhenius and Acids
* Bronsted-Lowry and Acids

Assignment:Page 171, #12-13Page 175, # 14Page 176 #15-17Page 178, # 18-20 |
| **5** | **GO 1** | Topic 1.2 – Continued* pH
* Indicators

Assignment:Page 183, #22-23Page 186, # 25-28Page 187, # 1-5, 9-11What to know for your quiz – review in booklet |
| **6** | **GO 1** | **Section 1.1-1.2 QUIZ**Topic 1.3 – Impact of Acid Deposition on Ecosystems* Wind Patterns (Jet Stream)
* Buffering and buffering capacity
* Plants response to pH

Assignment:Page 201, #1-4 |
| **7** | **GO 1** | * Go over quiz

Topic 1.4 – Quantifying Acid Deposition and Monitoring its effects* Qualitative and quantitative data
* Titrations
* Formulas for molar concentrations
* Strong and Weak Acids and Bases

Assignment:Page 211, # 42Page 215, # 45, 48Page 217, # 49-51 |
| **8** | **GO 1** | **LAB: Titrations** |
| **9** | **GO 1** | Topic 1.5 – Learning from Acid Deposition* Using your text book, page 222-235
* Self-directed
 |
| **10** | **GO 1** | * Review for topic 1.3-1.5 quiz
* Review questions at the end of note package
* Complete the entire chapter 1 booklet
 |
| **11** | **GO 1** | **QUIZ: Topic 1.3-1.5*** Introduce chapter 2 naming of organic compounds
 |
| **12** |  | Review* Naming Alkanes, Alkenes and Alkynes
* Single strands and branching

Assignment:Page 245, #1-2Organic Nomenclature Practice Sheet (for marks!) |
| **13** |  | Review* More Naming of organic Hydrocarbons

Assignment:* Building and Naming hydrocarbons
 |
| **14** | **GO 2** | * Organic Compound Naming Practice Sheet

Topic 2.1 – benzene* Benzene Rings
* Problems with benzene
* Halogenated Hydrocarbons
* Chlorofluorocarbons
* Ozone

Assignment:Page 247, #3-4Page 257, #10-11 |
| **15** | **GO 2** | Topic 2.2 – Alcohols, Carboxylic Acids and Esters* Alcohols and Naming
* Carboxylic Acids and Naming

Assignment:Page 266, #18-20Page 267, #21a, bPage 268, #22 |
| **16** | **GO 2** | Topic 2.2 – Continued* Esters
* Putting it all together: Alcohols, Carboxylic Acids and Esters

Assignment:Page 273, #23a,b,c,24,a,bChemistry and the environment review page. |
| **17** | **GO 2** | **QUIZ: Topic 2.1-2.2*** Ozone, Alkanes, Alkenes and Alkynes, Halogenated Hydrocarbons, Alcohols, Carboxylic Acids, and Esters
 |
| **18** | **GO 3** | Topic 2.3 – Understanding ExposureUsing pages 279-298 answer pages 16-20 in your booklet – work at your own pace! |
| **19** |  | **Unit Review** |
| **20** |  | **Diploma Review** |
| **21** |  | **Unit Exam** |