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 #1-8  Lab 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, #12-13  Page 175, # 14  Page 176 #15-17  Page 178, # 18-20 |
| **5** | **GO 1** | Topic 1.2 – Continued   * pH * Indicators   Assignment:  Page 183, #22-23  Page 186, # 25-28  Page 187, # 1-5, 9-11  What 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, # 42  Page 215, # 45, 48  Page 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, #1-2  Organic 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, #3-4  Page 257, #10-11 |
| **15** | **GO 2** | Topic 2.2 – Alcohols, Carboxylic Acids and Esters   * Alcohols and Naming * Carboxylic Acids and Naming   Assignment:  Page 266, #18-20  Page 267, #21a, b  Page 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,b  Chemistry 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 Exposure  Using pages 279-298 answer pages 16-20 in your booklet – work at your own pace! |
| **19** |  | **Unit Review** |
| **20** |  | **Diploma Review** |
| **21** |  | **Unit Exam** |