**Lesson Plan**

Grade/Subject: Science 9 Unit: Environmental Chemistry Lesson Duration: 90mins

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| **SPECIFIC OUTCOMES FROM ALBERTA PROGRAM OF STUDIES** | **LEARNING OBJECTIVES**  (2-3, clear, and measurable)  **Students will:** | **Formative & Summative ASSESSMENTS (How will you know they met learning objectives?)**  (Observations, Key Questions, Products/Performances) |
| **C.1.1** | Identify a variety of organic and inorganic substances  Identify common organic and inorganic substances that are essential to living things (carbohydrates, lipids, proteins, nucleic acids) | * **Observation (FOR)** * **Group Discussion** * **Workbooks** |
| **LEARNING RESOURCES CONSULTED** | | |
| **Resource #1: Program of Studies** | | |
| **MATERIALS/ EQUIPMENT/ SET UP** | | |
| * PowerPoint * Textbook * Work booklets * Lab sheets and materials | | |
| **PROCEDURE** | | |
| **Introduction** (5 min.)**:** | | |
| ***Attention Grabber****:* Today we will be doing another lab! But first bellwork! ☺  ***Expectations for Learning and Behaviour:***Expectation talk, rules and behaviours  ***Assessment of Prior Knowledge****:* Bellwork.  ***Transition to Body****:* Take out notebooks. | | |
| **Body** (80 min.)**:** | | |
| ***What are the teacher/students doing?***  **\*Bellwork and review of Lab Demo**  ***Learning Activity #1:*  PowerPoint Notes**   * Students will write down notes about topic 1.3 Common substances essential to living things * Throughout the PowerPoint I will direct students to the textbook for a greater clarification (ex. nutrient chart) * I will ask students clarification questions as we go through the notes   *Formative & Summative Assessments:* Observation, group discussion  *Transition:* Notebooks away. Only need lab sheets, textbooks, and pencil on your desk  ***Learning Activity #2:* Testing Organic Molecules Lab**   * Students will participate in a lab focusing on organic molecules * I will split the students up into 5 groups (one for testing glucose, starch, lipids, proteins, unknown samples) * Each group will be responsible for one aspect of the lab, once everyone is done their section we will review and share our findings as a class * Students are responsible for listening to each group share and fill in their observation chart * Students will fill out the questions in their table groups then hand in the lab sheet   *Formative & Summative Assessments:* Observation, group discussion, lab sheets  *Transition:* Clean up lab and take out notebooks.  ***Learning Activity #3:* Notes**   * Students will create their own summary notes for topic 1.4 with the textbook and a handout as a reference. * I will circulate around the classroom to ensure students are on task * Once students are done we will go through them as a class   *Formative & Summative Assessments:* Observation, group discussion, workbooks  *Transition:* Notes are due tomorrow! | | ***Notes:*** |
| **Closure** (5 min.)**: \* Connect your closure with learning objectives\*** | | |
| *Consolidation/Assessment of Learning:* Observations, discussion, workbooks  *Feedback From Students:* What are the four main classes of organic molecules?  *Feedback To Students:* I am very impressed on how well you did they lab today!  *Transition To Next Lesson:* Tomorrow we will be going into topic 2.0! | | |