**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.2.3** | Identify factors in the environment that influence water quality Identify factors in the environment that influence air quality (sulfur dioxide, nitrogen oxides, carbon monoxide | * **Observation (FOR)**
* **Group Discussion**
* **Workbooks**
 |
| **C.2.4** | Calculate and measure chemical concentration in parts per million  |
| **LEARNING RESOURCES CONSULTED** |
| **Resource #1: Program of Studies** |
| **MATERIALS/ EQUIPMENT/ SET UP** |
| * PowerPoint
* Textbook
* Work booklets
 |
| **PROCEDURE** |
| **Introduction** (5 min.)**:** |
| ***Attention Grabber****:* Get to play with the whiteboards today! ☺ ***Expectations for Learning and Behaviour:***Expectation talk, rules and behaviours***Assessment of Prior Knowledge****:* Bellwork. ***Transition to Body****:* Pass out whiteboards and markers.  |
| **Body** (80 min.)**:** |
| ***What are the teacher/students doing?*****\*Bellwork*****Learning Activity #1:* Topic 2.1 Notes/Questions** * We will go through questions 1-12 as a class
* We will watch <https://www.youtube.com/watch?v=FmNsC5Esk6g> 🡪 big bang theory 18 parts per million, I will teach ppm (parts per million) to the class using the food colouring example from yesterday
* Using whiteboards we will do skill practice together (pg. 217), students will complete check and reflect question 8, and questions 13 &14 in workbooks
* We will watch (<https://www.youtube.com/watch?v=oVW5LAzd7Ec> 🡪 Dissolved Oxygen) to introduce the next section of 2.1
* Students will continue to work in their workbooks and complete questions 15-27, we will go over them as a class

*Formative & Summative Assessments:* Observation, group discussion, workbooks *Transition:* Eyes on me. Pencils down! ***Learning Activity #2:* Topic 2.2** * I will show the Lorax video to engage the students on the new topic! I will read the first few paragraphs with the students
* Students will work in partners to complete questions 28-43

*Formative & Summative Assessments:* Observation, group discussion, workbooks *Transition:* Eyes on me. Pencils down!  | ***Notes:***   |
| **Closure** (5 min.)**: \* Connect your closure with learning objectives\*** |
| *Consolidation/Assessment of Learning:* Observations, discussion, workbooks*Feedback From Students:* Thumbs up, medium or down for topic 2.2? *Feedback To Students:* I am very impressed on how hard you guys worked today! *Transition To Next Lesson:* Tomorrow we will continue 2.2 and move into 2.3!  |