**Lesson Plan Title: Bohr Model Review & Practice**

**Teacher’s Name: Mr.Gomez Subject/Course: Chemistry**

**Unit: Electron Configuration & Periodicity Grade Level: College Prep/Honors**

**Overview of and Motivation for Lesson:**

**Bohr model will become useful to determine valence electrons**

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| **Stage 1-Desired Results** | | |
| **Standard(s):**   * HS-PS1-1. Use the periodic table as a model to predict the relative properties of main group elements, including ionization energy and relative sizes of atoms and ions, based on the patterns of electrons in the outermost energy level of each element. Use the patterns of valence electron configurations, core charge, and Coulomb’s law to explain and predict general trends in ionization energies, relative sizes of atoms and ions, and reactivity of pure elements. Clarification Statement: \* Size of ions should be relevant only for predicting strength of ionic bonding. State Assessment Boundary: \* State assessment will be limited to main group (s and p block) elements. | | |
| **Aim/Essential Question:**   * How does the Bohr model help write electron configuration? | | |
| **Understanding(s):**  *Students will understand that . . .*   * Each ring besides the first can hold 8 electrons * The first ring holds 2 electrons * There are multiple number of rings | | |
| **Content Objectives:**  *Students will be able to . . .*   * Draw Bohr Models for elements * Know number of electrons in each ring | | **Language Objectives:**  ELD Level 1 *Students will be able to . . . in English*   * Describe how to draw a bohr model for an element 1-20   ELD Level 4 *Students will be able to . . . in English*   * Justify their drawing of a bohr model for an element 1-20 |
| **Key Vocabulary**   * Bohr Model | | |
| **Stage 2-Assessment Evidence** | | |
| **Performance Task or Key Evidence**   * Students will do worksheet and attempt each problem | | |
| **Key Criteria to measure Performance Task or Key Evidence**   * Worksheet is attempted and have at least 2 correct | | |
| **Stage 3- Learning Plan** | | |
| **Learning Activities:**  Do Now/Bell Ringer/Opener: Take out flame test lab and finish it in the first 5 minutes of class  Learning Activity 1:  Take quick notes on the Bohr model (such as how many electrons each ring holds, how to draw them for some elements)  Learning Activity 2:  Individually do the worksheet on drawing Bohr models for elements for 5 minutes then work with pairs to finish it. If possible do worksheet on the board  Application  **Bohr Model is used to demonstrate why elements emit different lights**  Summary/Closing  **Lead students in correct direction on previewing next topic**  **Multiple Intelligences Addressed:**   |  |  |  |  | | --- | --- | --- | --- | | Linguistic | Logical-Mathematical | Musical | Bodily-kinesthetic | | Spatial | Interpersonal | Intrapersonal | Naturalistic |   **Student Grouping**  Whole Class  Small Group  Pairs  Individual  **Instructional Delivery Methods**  Teacher Modeling/Demonstration  Lecture  Discussion  Cooperative Learning  Centers  Problem Solving  Independent Projects | | |
| **Accommodations**  None | **Modifications**  If done early then start electron Configuration notes  If projector still down then do 3-4 on the board or do some on the mini boards | |
| **Homework/Extension Activities:**  None | | |
| **Materials and Equipment Needed:**   * Bohr Model Worksheet | | |

**Adapted from Grant Wiggins and Jay McTighe-*Understanding by Design***