**Lesson Plan Title: Electron Configuration**

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

**Unit: Electrons and periodicity Grade Level: College Prep**

**Overview of and Motivation for Lesson:**

**How do electron configurations**

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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 do scientists use electron configuration to predict periodic trends | | |
| **Understanding(s):**  *Students will understand that . . .*   * Electron configuration levels are filled first before moving on to the next * Each “block” must be filled first with same charge until it can be filled with downward charge * There can be different type of “blocks” on each level | | |
| **Content Objectives:**  *Students will be able to . . .*   * Start postulating the rules of electron configuration and how they apply to writing electron configurations | | **Language Objectives:**  ELD Level 3 *Students will be able to . . . in English*   * Discuss with group members about electron configuration using the pictures   ELD Level 4 *Students will be able to . . . in English*   * Analyze the diagrams and infer rules about electron configuration |
| **Key Vocabulary**   * Electron Configuration | | |
| **Stage 2-Assessment Evidence** | | |
| **Performance Task or Key Evidence**   * Click here to enter text. | | |
| **Key Criteria to measure Performance Task or Key Evidence**   * Do POGIL in groups and get through the first page and answer page correctly | | |
| **Stage 3- Learning Plan** | | |
| **Learning Activities:**  Do Now/Bell Ringer/Opener: Study Periodic Table for five minutes  Learning Activity 1:  Periodic Elements Quiz 25-36  Learning Activity 2:  Electron Configuration POGIL  Application  **Gives an introduction to electron configuration and rules**  Summary/Closing  **What are our first thoughts on electron configuration?**  **Can we come up with some rules for electron configuration?**  **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**  None | |
| **Homework/Extension Activities:**  None | | |
| **Materials and Equipment Needed:**   * POGIL worksheets * 25-36 Element quiz | | |

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