**Lesson Plan Title: Electron Configuration Quiz**

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

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

**Overview of and Motivation for Lesson:**

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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 are periodic trends useful? | | |
| **Understanding(s):**  *Students will understand that . . .*   * Periodic trends either increase going across and down or decrease or a mix of both | | |
| **Content Objectives:**  *Students will be able to . . .*   * Identify and Label Periodic trends | | **Language Objectives:**  ELD Level 1 *Students will be able to . . . in English*   * List periodic trends by writing them down in the notes   ELD Level 4 *Students will be able to . . . in English*   * Analyze periodic trends and create ways to remember periodic trends |
| **Key Vocabulary**   * Electronegativity * Atomic Radius * Ionization Energy * Metallicity * Ionization Radius | | |
| **Stage 2-Assessment Evidence** | | |
| **Performance Task or Key Evidence**   * Students will recap periodic trends in own words and ways to memorize them. | | |
| **Key Criteria to measure Performance Task or Key Evidence**   * Students will take Electron Configuration Quiz and answer questions correctly | | |
| **Stage 3- Learning Plan** | | |
| **Learning Activities:**  Do Now/Bell Ringer/Opener: Panic study notes on Electron Configuration for 5 minutes  Learning Activity 1:  Teacher will ask students to clear the desk and pass out quiz  Learning Activity 2: (If quiz is done early)  Students will take out a piece of paper and writing utensil to take notes on Periodic Trends.  Teacher will be discussing the Periodic Trends and ways to memorize them/understand them  Application  **Periodic trends help understand that elements have similar properties and can be useful in bonding and other concepts.**  Summary/Closing  **Discuss essential question as a class**  **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**  Extra time on the quiz  Word Bank | **Modifications**  None | |
| **Homework/Extension Activities:**  None | | |
| **Materials and Equipment Needed:**   * TV * Compute * HDMI Cable * Powerpoint | | |

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