**Lesson Plan Title: Introduction to Periodic Trends**

**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**   * Click here to enter text. | | |
| **Key Criteria to measure Performance Task or Key Evidence**   * Click here to enter text. | | |
| **Stage 3- Learning Plan** | | |
| **Learning Activities:**  Do Now/Bell Ringer/Opener: Students will get out plicker cards and answer following questions For Honors Write the Full and abbreviated electron configuration for Iodine What is the orbital diagram for Calcium? What is the electron configuration for Magnesium?  Learning Activity 1:  Students will get out piece of paper and take notes on periodic trends  Learning Activity 2:  None  Application  Summary/Closing  **Get everyone started thinking about the hw and recap what we learned today**  **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**  Abbreviated PowerPoint if really long and wordy | **Modifications**  None | |
| **Homework/Extension Activities:**  Due two days after Periodic trend notes are done.  Come up with ways on how you would memorize periodic trends? | | |
| **Materials and Equipment Needed:**   * TV * Compute * HDMI Cable * Powerpoint | | |

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