**Lesson Plan Title:** Click here to enter text.

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

**Unit:** Click here to enter text. **Grade Level: College Prep**

**Overview of and Motivation for Lesson:**

**Isotopes are used to determine atomic mass for elements**

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| --- |
| **Stage 1-Desired Results** |
| **Standard(s):*** Click here to enter text.
 |
| **Aim/Essential Question:*** How can atomic mass be determined with atomic mass of isotopes?
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| **Understanding(s):***Students will understand that . . .** How atomic mass is calculated from different types of isotopes
* Isotopes might be similar but are different
* Different isotopes have different abundance in nature
 |
| **Content Objectives:** *Students will be able to . . .* * Convert percentages to decimals
* Calculate atomic mass for an element
 | **Language Objectives:**ELD Level Choose an item. *Students will be able to . . . in English** Click here to enter text.

ELD Level Choose an item. *Students will be able to . . . in English** Click here to enter text.
 |
| **Key Vocabulary*** Average Atomic Mass
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| **Stage 2-Assessment Evidence** |
| **Performance Task or Key Evidence*** Solve average atomic mass problems and obtain values near actual atomic mass of an element
 |
| **Key Criteria to measure Performance Task or Key Evidence*** Solve problems 2 and 3 correctly in the least number of steps
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| **Stage 3- Learning Plan** |
| **Learning Activities:**Do Now/Bell Ringer/Opener: Take out notes from Friday & periodic table and review example about copperLearning Activity 1:Average Mass practice with one more problem done as a class. After example students will attempt problems 1 and 2 by themselves Learning Activity 2:Candium Pre-LabApplication **Isotopes help determine atomic mass for elements**Summary/Closing**Understand isotopes might be similar in characteristics but have different atomic masses and abundance which make up atomic mass for element****Multiple Intelligences Addressed:**

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| --- | --- | --- | --- |
| [ ]  Linguistic | [x]  Logical-Mathematical | [ ]  Musical  | [ ] Bodily-kinesthetic |
| [ ]  Spatial  | [ ]  Interpersonal | [ ] Intrapersonal | [ ] Naturalistic  |

**Student Grouping**[x] Whole Class [ ]  Small Group [ ]  Pairs [x]  Individual**Instructional Delivery Methods**[x] Teacher Modeling/Demonstration [ ]  Lecture [ ]  Discussion[x]  Cooperative Learning [ ]  Centers [x]  Problem Solving[ ]  Independent Projects |
| **Accommodations**Click here to enter text. | **Modifications**Click here to enter text. |
| **Homework/Extension Activities:**Finish Pre-Lab for HWAttempt problems 3 & 5 on the Worksheet |
| **Materials and Equipment Needed:*** Whiteboard
* Markers
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**Adapted from Grant Wiggins and Jay McTighe-*Understanding by Design***