|  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- |
| **Achievement Scale- Elements and The Periodic Table (Chapter 9)** | | | | | |
| **Content Area:** Physical Science | | **Grade Level:** 7 | | | |
| **Measurement Topic: Conservation of Mass and Energy** | | | | | |
| **Learning Goal: The properties of matter are determined by the arrangement of atoms.** | | | | | |
| **Level 4:**   * The student demonstrates in depth inferences and applications of the learning goals that go beyond what was taught. * The student uses evidence and justify information taught and apply it to a new situation | | | | | |
| **Level 3:** Elements can be organized into families with similar properties Families include highly reactive metals, less reactive metals, highly reactive nonmetals and some gases that are almost completely un-reactive.   * Identify the patterns that Mendeleev noticed in elements(arranged by increasing atomic mass) * Distinguish between Periodic Table includes each elements atomic number, symbol, name, and atomic mass * Properties of an element can be predicted from its location in the periodic table * Physical properties of metals include luster, malleability, ductility, and conductivity * Metals are classified as: alkali, alkaline earth, transition, metals mixed in groups, lanthanides, actinides * In general most nonmetals are poor conductors, and solid nonmetals tend to be dull and non brittle * Families containing nonmetals include: carbon, nitrogen, oxygen, halogen, nobles gases, and hydrogen | | | | | |
| **Level 2:** The student can Identify basic vocabulary and/or has limited knowledge of the learning goal. | | | | | |
| **Academic Vocabulary:**   * Atomic Mass * Atomic Number * Periodic Table * Nucleus * Proton * Neutron | * Electron * Chemical Symbol * Group * Metal * Luster * Malleable * Thermal Conductivity | | * Electrical conductivity * Reactivity * Corrosion * Alkali Metal * Alkaline Earth Metal * Transition Metal * Non metal | * Diatomic Molecule * Halogen * Noble gas * Metalloid * Semi conductor * Ductile |
| **In Class and Textbook:**   1. <http://my.hrw.com/sh2/sh07_10/student/flash/visual_concepts/75020.htm> -Period Table Overview 2. <http://my.hrw.com/sh2/sh07_10/student/flash/visual_concepts/75021.htm> - Comparing Metals to Nonmetals 3. Section 1 pages 313-319 and the assess your understanding 4. Section 2 pages 320-327 and the assess your understanding 5. Section 3 pages 328-337 and the assess your understanding 6. Bill Nye Atoms   **TASKS:**   1. The Great Periodic Table race- complete the game and guide question sheet 2. Virtual Lab. <http://my.hrw.com/sh2/sh07_10/student/flash/virtual_investigations/hst/prt/hst_prt_vi.html>   Complete, print screen and save results to the U drive   1. Brain Pop: <http://www.brainpop.com/science/matterandchemistry/periodictableofelements/preview.weml>   username: mayfieldbp password: brainpop complete the quiz and activity  **LABS:**   1. Survey Properties and Metals 2. Element Museum   **Independent Activities:**  The following are the objectives that you are required to know for this unit. For this section of the task sheet you will choose **THREE** of the following **FIVE** activities to complete in your notebook.   1. Vocab- you may choose: flash cards, foldable, or a digital app to define key terms listed on pages 311, 321, and 329(you should have 27 in total) 2. Science Matters Discovery of the Elements page 342-Read the information and the complete the “RESEARCH IT” 3. Elements of the Human Body page 343- Read the information and complete the graph it. 4. Take each “I can” rewrite and explain. 5. Practice the Study stack for this chapter and print screen 2 of the activities(or get teacher checked)   <http://www.studystack.com/flashcard-1409234> | | | | | |