|  |
| --- |
| **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 drive1. 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> |