Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Pd: \_\_\_ Ast#: \_\_\_\_\_

**Physical Science Honors**

Science Performance Rating Scale

|  |  |
| --- | --- |
| **Big Idea: MATTER** | **Assessed at Complexity Level:****3 – STRATEGIC THINKING & COMPLEX REASOING** |
| **Unit: Atoms** |
| **Benchmark: SC.9.12.P.8.4 – Explore the scientific theory of atoms (also known as atomic theory) by describing the structure of atoms in terms of protons, neutrons and electrons, and differentiate among these particles in terms of their mass, electrical charges and locations within the atom.** |
| **MASTERY LEVEL** | **Performance Indicators** | **BEFORE INST.** | **DURING INST.** | **AFTER INST.** |
| **4** | **EXCEEDING****the Standard** | Explain the existence of isotopes and ions based on the configuration of sub-atomic particles within an element |  |  |  |
| Explain how an element’s sub-atomic particles influence its atomic mass |  |  |  |
| Differentiate between elements based on their sub-atomic particles |  |  |  |
| **3** | **MASTERY** | **Differentiate among the sub-atomic particles in terms of their mass, charge, and location within the atom** |  |  |  |
| **Describe the structure of an atom in terms of its sub-atomic particles according to our current understanding of atomic theory** |  |  |  |
| **2** | **PARTIAL MASTERY** | Recognize that atoms are the smallest individual unit of matter, though they consist of sub-atomic particles |  |  |  |
| Identify definitions of key terms such as: ATOM, ELECTRON, ELECTRON CLOUD, ELEMENT, ION, ISOTOPE, MATTER, NEUTRON, NUCLEUS, PROTON |  |  |  |
| **1** | **BUILDING MASTERY** | With help, I can demonstrate partial mastery of some of the simpler tasks listed above, but I still make some mistakes. |  |  |  |
| **0** | **NOVICE** | I currently have no knowledge or mastery of the skills and tasks listed above, but I will make an effort to learn them. |  |  |  |