

[Ohio State Standards](#)

Learning Standard	Objective
Cognitive Demands for Science: -Designing Technological/Engineering Solutions for Science Concepts -Demonstrating Scientific Knowledge	Students are able to design an experiment, interpret scientific data (provided or collected), model/represent their data, and provide evidence-based descriptions of the results.
PS.M.2. Atoms -Models of Atoms (components) -Ions (cations & anions) -Isotopes	Students are able to develop models of atoms and identify types of elements by their atomic structure.  Students understand how positively/negatively charged particles form and how they interact with one another.  Students understand how various amounts of subatomic particles impact the characteristics of an atom.
PS.M.3 Periodic Table of Elements -Periodic Trends of Elements -Periodic Law -Representative Groups	Students can organize a periodic table of elements and explain properties/relationships among different elements.
PS.M.1 Classification of Matter -Heterogenous/Homogenous -Properties of Matter -States of Matter	Students investigate, observe, and explain the properties of various elements.  Students develop state of matter/temperature curves and create models to explain what this means for elemental kinetics.