

Chemistry - Atoms & the Periodic Table

Time Frame: 15 days	Unit Title: Atoms & the Periodic Table	Course Name: Chemistry
Stage 1: Desired Results		
Established Goal(s)	Transferable Skills	
NGSS Standards Addressed: HS-PS1-1 Use the periodic table as a model to predict the relative properties of elements based on the patterns of electrons in the outermost energy level of atoms.	<i>Students will be able to independently use their learning to...</i> Determine trends based on data.	
	Meaning	
	<u>Understandings</u> <i>Students will understand that...</i> <ul style="list-style-type: none"> ★ The relationships between neutrons, electrons, and protons. ★ Average atomic mass can be predicted from isotopic data. ★ Electrons are organized around the nucleus. ★ Emission data can identify elements. ★ Periodic Table can be used to determine the structure of an element. ★ Periodicity of the Periodic Table allows you to predict properties 	<u>Essential Questions</u> <ul style="list-style-type: none"> ★ How do scientists know the elements that make up stars and planets? ★ How do scientists know properties of elements that are yet to be discovered?
	Acquisition	
	<i>Students will know...</i> <ul style="list-style-type: none"> ★ The structure of an atom ★ How to read the Periodic Table ★ Patterns in the Periodic Table ★ Arrangement of electrons in an atom 	<i>Students will be able to...</i> <ul style="list-style-type: none"> ★ Analyzing the emission spectrum of an atom ★ Predict properties of an atom ★ Determine the electron configurations for an atom