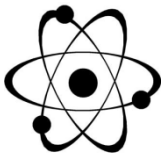
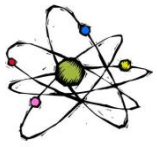
Name _____



Atomic Theory and Bonding



How do atoms connect with one another to form compounds?

Owning my learning

Below is a list of learning intentions. Place a check mark in the box that best describes your learning level at the beginning of the learning and after we have learned together.
"B" stands for beginning, "A" stands for accomplished.

I Can Use:

B	A	
○	○	the Periodic Table to determine if an element is a metal or non-metal
○	○	lab equipment to determine the properties of ionic and covalent (molecular) compounds

I Can Identify:

B	A	
○	○	the location of the alkali metals, alkaline earth metals, halogens, noble gases and hydrogen in the Periodic Table
○	○	similarities in the properties and valence of elements in a chemical family
○	○	which elements form cations
○	○	which elements form anions
○	○	ionic and covalent compounds
○	○	bonding pairs and lone pairs of electrons in a diagram of a molecule

I Can Describe :

B	A	
○	○	the charge, relative mass and location in the atom of protons, neutrons and electrons
○	○	the difference between an atom and an ion
○	○	how a cation and an anion are formed
○	○	how an ionic and covalent compound are formed
○	○	the difference between a formula unit and a molecule
○	○	the difference between a chemical and a physical change
○	○	the organization of the Periodic Table using the words "period" and "group"
○	○	a stable octet
○	○	the difference between atomic mass and mass number

I Can Determine:

B	A	
○	○	the nuclear charge of an atom or ion
○	○	the number or protons, neutrons and electrons in an atom, ion or isotope using an element's mass number and atomic number

I Can Recognize and/or Draw:

○	○	the electron arrangement for a metal or non-metal atom or ion of an element
		a Bohr diagram for:
○	○	an atom, ion or isotope of a metal element showing the correct number of protons, neutrons and electrons
○	○	an atom, ion or isotope of a non-metal element showing the correct number of protons, neutrons and electrons
○	○	an ionic compound
○	○	a covalent compound
		a Lewis diagram for:
○	○	an atom or ion of a metal element
○	○	an atom or ion of a non-metal element
○	○	an ionic compound
○	○	a covalent compound