

Due Date: _____

Scenario:

While walking around your neighborhood, you found a lost and lonely element under a bush. As you have a big heart, you cannot stand the thought of this poor element being left alone outside and you decide to adopt it. Since you are a responsible pet parent, you decide to find out as much as you can about your element, and of course, as pet parents do, you want to share all of this information with your friends whether they want to hear it or not.

Task:

You found element _____. You must create a presentation about your element. How you choose to present this information is up to you. You can create a video (such as with Adobe Spark or the Record Slideshow feature in PowerPoint), a PowerPoint, a Nearpod, a series of infographics, etc. Just be sure to make your element as interesting as possible, because your element is better than everyone else's!

The rubric below will be used to score your project. Details:

- The "Criteria" column: Standard #) Learning Target 
- The "Meets Expectations" Column: Success Criteria . ****These are the minimum information that must be included.****

Recommended: Make a different slide for each row of the rubric (8 slides total).

(1.e) Emissions spectra pictures can be found here:

<http://www.alexpetty.com/2014/09/21/the-periodic-table-of-light/>

Name: _____ Period: _____

COMMON FORMATIVE ASSESSMENT | Unit 1

Standard) Learning Target 	Exceeds Expectations (100%)	Meets Expectations  (85%)	Approaching Expectations (75%)	Does Not Meet Expectations (0%)	Feedback
Introduction	I have met expectations AND have provided a vivid title slide with extra information, diagrams, etc. (5 pts)	I'll know I've got it when I have included an introduction slide with my name and the element's square from the periodic table. (Should at least contain the symbol, atomic mass, and atomic number.) (4.25 pts)	I have not included my name on the introduction slide OR I have not included the element's square from the periodic table. (3.75 pts)	I have not included an introduction slide with my name and the element's square from the periodic table. (0 pts)	Score: _____ / 4
1.b) I can identify and locate the three subatomic particles.	I have met expectations AND stated the number of protons, neutrons, and electrons in a common ion of my element. (19 pts)	I'll know I've got it when I have stated the number of protons, neutrons, and electrons in a neutral atom of my element. (16.15 pts)	I have incorrectly stated the number of protons, neutrons and/or electrons in a neutral atom of my element OR some info is missing. (14.25 pts)	I have not included a description of the number of protons, neutrons, and electrons in a neutral atom of my element. (0 pts)	Score: _____ / 19
1.d) I can construct an explanation of how the relative abundance of the isotopes of an element will affect its atomic mass.	I have met expectations AND explained how the relative abundances (percentages) of different isotopes affect the weighted average (atomic mass). (19 pts)	I'll know I've got it when I have listed the common isotopes of my element, their relative abundances, and their masses AND have shown my calculations for how they yield the atomic mass in the periodic table. (16.15 pts)	I have listed the isotopes' masses and relative abundances, BUT have not properly calculated the atomic mass of the element seen on the periodic table. (14.25 pts)	I have NEITHER included the masses and abundances of the isotopes NOR have I calculated the average atomic mass. (0 pts)	Score: _____ / 19
1.e) I can use patterns in light emission spectra and the movement of electrons to identify elements.	I have met expectations AND included in my explanation specific wavelengths that make up the emissions spectrum fingerprint. (19 pts)	I'll know I've got it when I have identified patterns within the emissions spectrum of my element and described how these patterns are the fingerprint for identifying my element in various circumstances. (16.15 pts)	I have included a picture of the emissions spectrum BUT have not described how it can be used to identify my element. (14.25 pts)	I have NEITHER included a picture of the emissions spectrum NOR have I described how it can be used to identify my element. (0 pts)	Score: _____ / 19

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COMMON FORMATIVE ASSESSMENT | Unit 1

Standard) Learning Target 	Exceeds Expectations (100%)	Meets Expectations  (85%)	Approaching Expectations (75%)	Does Not Meet Expectations (0%)	Feedback
1.f) I can identify trends in valency, define a periodic group, and describe the properties of the main group elements.	I have met expectations AND related its reactivity to its chemical properties. (9.5 pts)	I'll know I've got it when I have shown which group on the periodic table my element is in AND described how this relates to its # of valence electrons and how reactive it is. (8.08 pts)	I have shown which group on the periodic table my element is in BUT have not described how this relates to its # of valence electrons and how reactive it is. (7.12 pts)	I have NEITHER shown which group on the periodic table my element is in NOR have not described how the group relates to its # of valence electrons and how reactive it is. (0 pts)	Score: _____ / 9.5
1.f) I can use the periodic table as a model to identify general patterns in atomic radii (AR), ionization energy (IE) and electronegativity (EN)* of atoms.	I have met expectations AND have related how element's number of shells and effective nuclear charge cause the AR, IE, and EN to be higher or lower than other elements in the table (i.e., explained how it fits into the periodic trends). (9.5 pts)	I'll know I've got it when I have used the periodic table as a model to identify patterns in AR, IE, and EN. The description included the AR, IE, and EN* values for my element, described what these terms mean, AND explained how the number of shells and the effective nuclear charge (proton pull) affect these values. (8.08 pts)	I have given the AR, IE, and EN values for my element BUT have not adequately described what these terms mean AND/OR have not explained how the number of shells and effective nuclear charge (proton pull) affect these values. (7.12 pts)	I have NEITHER given the AR, IE, and EN values for my element NOR have I explained these terms NOR have I explained how the number of shells and effective nuclear charge affect these values. (0 pts)	Score: _____ / 9.5
1.g) I can develop and use models of electron configuration to determine the chemical properties of an element.	I have met expectations AND have given examples of elements it will/will not easily react with AND explained why using these models. (9.5 pts)	I'll know I've got it when I have developed labeled Bohr AND Lewis dot diagrams for a neutral atom of my element and used these models to explain how reactive my element is (gaining or losing # of electrons). (8.08 pts)	I have shown a labeled Bohr OR Lewis dot diagram for a neutral atom of my element. (7.12 pts)	I have shown NEITHER a Bohr diagram NOR a Lewis dot diagram for a neutral atom of my element. (0 pts)	Score: _____ / 9.5
1.g) I can develop and use models of electron configuration to determine the chemical properties of an element.	I have met expectations AND described how my Aufbau diagram follows the Aufbau and Pauli Exclusion Principles and does not violate Hund's Rule. (9.5 pts)	I'll know I've got it when I have provided an Aufbau Diagram AND the full electron configuration AND the abbreviated shorthand electron configuration for a neutral atom of my element. (8.08 pts)	I have provided 2/3 or 1/3 of the following: an Aufbau Diagram; the full shorthand electron configuration; the abbreviated shorthand electron configuration of my element. (7.12 pts)	I have provided NEITHER an Aufbau Diagram NOR a full shorthand electron configuration NOR an abbreviated shorthand electron configuration of my element. (0 pts)	Score: _____ / 9.5
					Score: _____ / 100