**Chemistry 1 Final Exam Topics**

**Students should be able to:**

* **distinguish between physical and chemical changes.**
* **classify matter as an element, compound, or mixture and interpret a model or statement to conclude if it represents an element, compound, or mixture.**
* **determine the atomic number, mass number, number of protons, neutrons, electrons of an element using the periodic table.**
* **identify an isotope, use isotope notation, and explain how the number of neutrons can be different in an atom.**
* **determine the number of valence electrons and use them to draw a Lewis dot structure/diagram.**
* **predict the properties of elements on the periodic table based on location.**
* **define an ion and predict how one is formed, and apply the octet rule to an element to predict the ion it will form.**
* **predict how elements will form an ionic bond based on their position on the periodic table.**
* **write formulas for ionic compounds based on their valence electrons, position on the periodic table, and charges.**
* **interpret evidence from a heating curve.**
* **identify the system vs. surroundings in a situation or model.**
* **model the exchange of energy between the system & surroundings.**