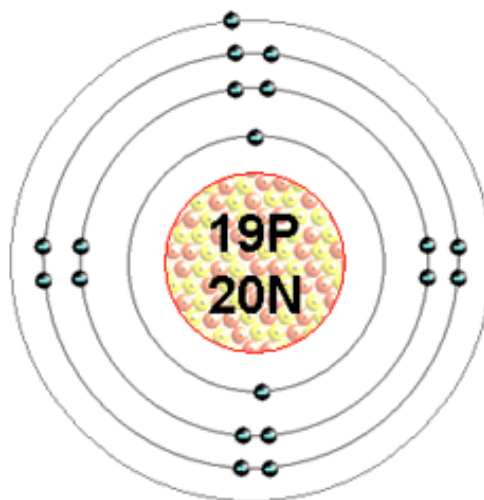
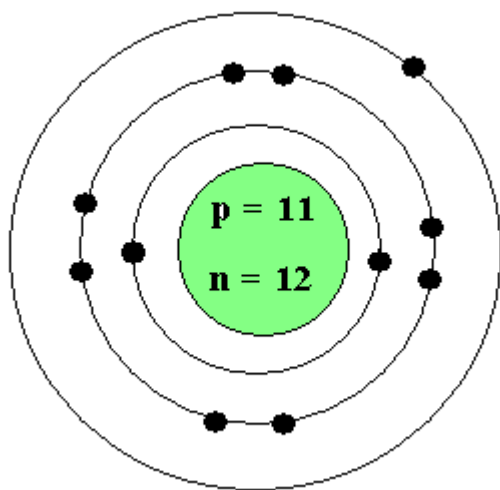


Date: _____

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Periodic Table Trends in Reactivity

Recall: Draw Bohr models for Na and K. Write the electron configuration.



Which is more reactive with water: Na or K? Why?

P Potassium is more reactive	E See explanation below
O Potassium – makes a bigger flame than Na	E See explanation below

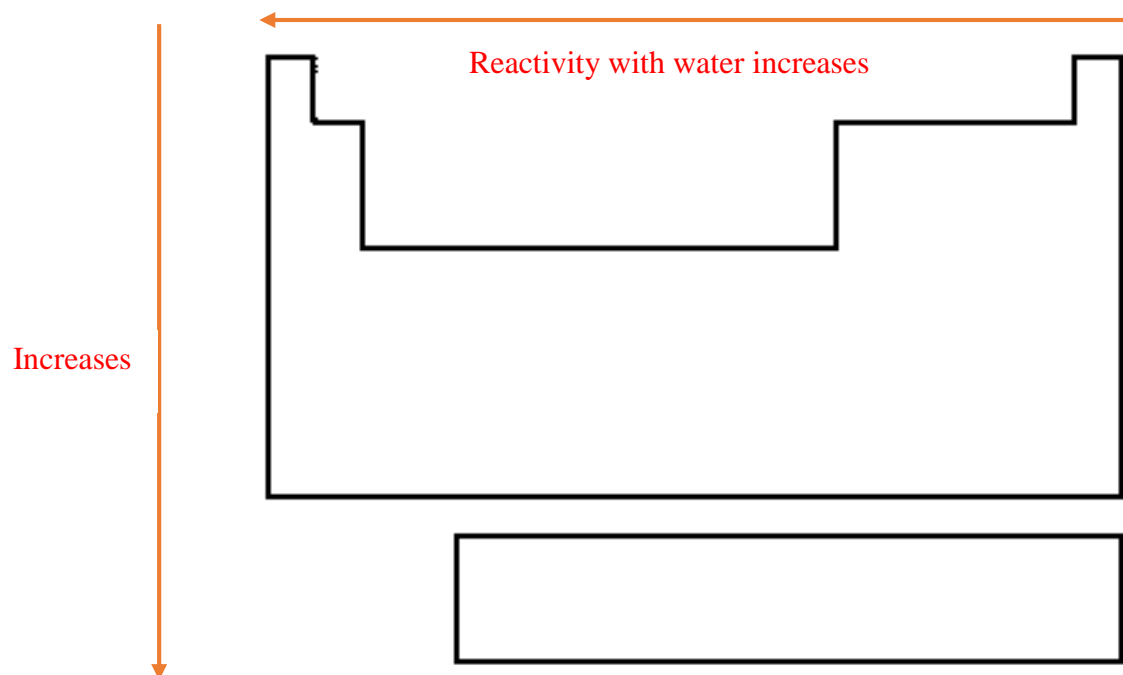
Explanation: Valence electrons are located in the outermost energy level of an atom. The elements properties because they have valence electrons in similar configurations. The one valence electron in K is lost more easily than the one valence electron in Na because it is located further from the positively charged nucleus (making it more reactive than Na).

Similarly, Ca is more reactive than Mg for the same reason. Ca and Mg are both less reactive than Na and K.

Date: _____

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Reactivity of metals with water decreases across a period, and increases down a family.



An atom is more **stable** when it has a full valence shell. Noble gases are stable (unreactive) due to their **full** valence shells.