ASSIGNMENT

At the top of your assignment, please print **"T12 – Periodic Trends 5: 1st Ionization Energy", your LAST then First name, block and date**. Complete these questions in the order given here. *[Marks indicated in italicized brackets.]*

USE POINT OR BULLIT FORM WHEN EXPLAINING PERIODIC TRENDS.

1. State then provide a theoretical explanation for each of the two first ionization energy trends within the periodic table. *[10]*

2. Use your knowledge of the periodic trends to list the elements below in increasing order of first ionization energy. Provide a theoretical explanation for your arrangement. *[5]*

   S, Al, K, Mg, Sr

3. A chemistry student makes this hypothesis: The first ionization energies of two isotopes of oxygen are different. State whether you agree or disagree with this hypothesis? Justify your answer using your knowledge of atomic structure. *[3]*

4. Describe the relationship between atomic radius, chemical reactivity and first ionization energy and within a group of metals. *[3]*

5. Describe how the periodic trends for atomic radius, chemical reactivity and first ionization energy and within a period of non-metals are similar. ***Not the explanations***. *[3]*

[24 marks in total]

BRING GRID PAPER NEXT CLASS!!

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