

CHEMISTRY QUIZ REVIEW SHEET – IPS HONORS

This is a closed notebook quiz. You will be provided with a basic periodic table to use.

- Anatomy of an atom: subatomic particles, where are they located, charges, relative masses
- Understand and be able to identify physical and chemical properties of elements.
- Periodic trends: periods/electron shells, groups(families)/valence electrons, metals/nonmetals/metalloids, atomic radius
- How to interpret an element key: atomic #, # protons, atomic mass, # neutrons, # electrons, element symbol
- Be able to explain how a mass number is different from an atomic number. Be able to determine an atom's mass number.
- Be able to explain what an isotope is. Be able to determine whether two atoms are isotopes or are different elements.
- How are periods and groups different?
- Know the physical characteristics of metals, nonmetals, metalloids.
- Be able to draw Bohr models of elements in the first 3 periods.
- Know the three major forms of radiation: alpha, beta, and gamma. What is each particle/ray, what are the dangers of each particle/ray?
- Be able to predict the product after alpha and beta decay when given the original radioactive element.
- Be able to write a nuclear equation when told if a radioactive atom will alpha or beta decay.
- What makes some elements radioactive? (strong force vs. EM force; lone neutrons).
- Distinguish between nuclear fission and fusion.
- Be able to explain a nuclear fission reaction in terms of how it starts, what products are given off, and the resulting chain reaction.