**AP Biology Study Guide for Chapters 2-4 Quiz**

**Chapter 2: Basic Chemistry**

* Know what elements are most commonly found in living organisms.
* Using information from the periodic table, determine:
	+ Number of protons, neutrons and electrons
	+ Atomic Mass
* Be able to interpret/draw the Bohr model of an atom for an element
* Know what role valence electrons play in the bonding of atoms
* Be able to differentiate between the types of bonds we discussed
	+ Covalent- Polar and Nonpolar
	+ Ionic
	+ Hydrogen
	+ Van der Waals

**Chapter 3: Water and pH**

* Be able to describe the properties of water
* Be able to describe why water is a polar molecule
* Understand what pH is a measure of and be able to determine if one substance is more/less acidic than another
	+ Remember that differences in pH are 10X
* Be able to interpret a pH as acidic, basic or neutral
* Be able to explain what a buffer is and how it functions in a living system

**Chapter 4: Organic Compounds**

* Be able to differentiate between organic and inorganic compounds
* Understand why carbon is essential to living organisms
* Be able to explain what hydrocarbons are and what properties result as from their structure
* Be able to differentiate between enantiomers, structural isomers and geometric isomers
* Know each of the functional groups we discussed and the properties of each
	+ Also know the group’s name