**STUDY GUIDE UNIT 1 AP BIOLOGY 2019**

Know differences between DNA and RNA, know the base pairing rules for each

Be able to describe the four levels of protein structure in order, and which kinds of bonds/interactions are primarily involved in each level of protein structure

Know the six most common elements in macromolecules in living organisms, also know that sulfur is primarily found in proteins, phosphorus primarily in nucleic acids. Be able to recognize a carb, a lipid, a peptide and a nucleic acid, know the different purposes of glycogen and starch. You do not need to recognize nor draw isomers for this exam

Describe the differences between saturated and unsaturated fats. Which one is more likely solid at room temperature?

Be able to describe why hydrogen bonds form between water molecules, be able to diagram hydrogen bonds between water molecules

Recognize the differences between dehydration synthesis and hydrolysis reactions, know which kind of linkages are formed by dehydration synthesis in each of the four major types of macromolecules

Draw an amino acid. Which part of an amino acid makes it unique?

Know the most common functions of the major types of macromolecules

Describe what chaperonins do

Explain how the properties of water support life on earth as we know it

38 multiple choice questions. There will also be one free response question which will involve a graph with 95% confidence intervals.