Biology, Castle View High School Name: \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_  
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**Drawing Organic Molecules**

1. Complete the chart below for the four organic molecules.

|  |  |  |  |
| --- | --- | --- | --- |
| **Class of Organic Molecule** | **Monomer (If it doesn’t form polymers indicate as much)** | **Examples of different types of the class of organic molecule** | **Functions in a Cell** |
| Protein |  |  |  |
| Nucleic Acids |  |  |  |
| Carbohydrates |  |  |  |
| Lipid |  |  |  |

1. Draw each of the following using the ***generalized structures*** learned in class. Below each molecule indicate if it is hydrophilic or hydrophobic.
   1. Deoxyribonucleotide (just one monomer)
   2. Double Stranded DNA (at least 4 nucleotides) demonstrating the following:
      1. Appropriate structure and bonding between individual nucleotides.
      2. Complementarity between bases on opposite strands
      3. Antiparallel nature of 2nd strand
      4. The Bonding between adjacent bases
   3. ATP
   4. Two Ribonucleotides bound together covalently as in an RNA strand
   5. One Hydrophilic amino acid
   6. One Hydrophobic amino acids
   7. Three amino acids joined together in a chain (label each as Hydrophilic or Hydrophobic)
   8. Glucose (in the ring form)
   9. A polysaccharide made of 3 or more monosaccharides.
   10. A Triglyceride
   11. A Phospholipid