Name: Period:

|  |  |
| --- | --- |
| **Unit 1 Chemistry of Life. Campbell Ch. 1-5.**  Your task is to create a quick study card for the Exam. **MUST** be handwritten. Use the front and back of one sheet of paper. **Accuracy, Neatness – Use ruler to draw charts, tables, etc. and appropriate use of color.** Color needs to be embedded and used appropriately (**DO NOT just color large sections different colors.)** Title of the Quick Study Card in the Top Center of the page First and Last Name in upper right. | **checklist** |
| **1.** Diagram 5 water molecules, showing polarity and hydrogen bonding. Define and give an example of: cohesion, adhesion, surface tension. |  |
| **2.**  Make a chart of the most important atoms used to build macromolecules and which macromolecules contain which atoms. |  |
| **3.** Diagram and define: hydrolysis and dehydration synthesis. |  |
| **4.** Make a chart of the 4 categories of macromolecules. Include the names of their monomers or subunits, an example, general shape (draw), directionality of molecule – ie, are the ends different? How? (if applicable), and important subtypes. |  |
| **5.** Diagram the parts of an amino acid. List the different categories of R groups and explain how they affect ultimate protein structure. |  |
| **5**. List the 4 levels of protein structure and identify what determines each level. |  |
| **6.** Make a Venn diagram comparing DNA and RNA. |  |
| **7**. Science skills: claim, evidence, reasoning. Imagine a world based on a small nonpolar lipid, instead of based on water. What would be the result in macromolecule structure and function? Write a brief CER. |  |
| **8.**  Science skills: Sketch a line graph and a bar graph, showing proper scaling of both axes. Label the dependent and independent variables. When should a bar graph be used instead of a line graph? How are error bars drawn and what do they indicate? |  |
| **9.** Science skills: What is the difference between the null and alternative hypotheses? Give an example of each. How would you support or fail to support each? |  |
| **10.** Exam skills: Define the following task verbs (look on AP central): identify, describe, evaluate, explain, justify. Using data from one of our labs, give an example of each type of task – use the same data set for each term. |  |
| **TOTAL** |  |