AP Biology Homework

Due Monday 11/24 or Tuesday 11/25 of this week.

1. Fill out the following table regarding the levels of structural organization of proteins. See page 80 of your textbook.

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| --- | --- | --- |
| **Structural Level** | **Description** | **Supporting Bonds and Molecular Interactions** |
| Primary (1st) Structure |  |  |
| Secondary (2nd) Structure |  |  |
| Tertiary (3rd) Structure |  |  |
| Quarternary (4th) Structure |  |  |

2. On the back of this page or on a separate sheet of paper model dehydration synthesis between glycine, phenylalanine, and serine. Label each amino acid in your diagram with its three letter and single code above. Mark below each amino acid whether it is polar or nonpolar. Also label the N-terminus end of the tripeptide and the C-terminus end. Circle each peptide bond in the chain.

3. Answer question 10 from page 91 of your textbook.

4. On a separate sheet of paper draw a section of cell membrane that includes phospholipid molecules (you can show these as little balls with two tails), cholesterol, a channel protein, an aquaporin, and a receptor protein. Be sure to label clearly everything on your diagram.

5. Answer question 12 from page 123 of your textbook.

6. Make a table that lists the evidence for endosymbiosis theory of cell evolution for mitochondria and chloroplasts.

7. Study advice: Be sure you can recognize a carbohydrate, protein, nucleic Acid, a fat, and cholesterol when you see them.