

TxCETP Course Component: Protein Folding and Shape

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III. Assessment & Evaluation

Pre- and Post-Test Questions

Inquiry A Evaluation

1. What is the primary type of chemical bonding that allows for the helical and plaited sheet structures found in proteins?
 - A) covalent.
 - B) disulfide bonds.
 - C) ionic bonds.
 - D) hydrogen bonds.
 - E) none of the above are correct.
2. The level of protein folding which involves combining different subunits is
 - A) primary.
 - B) secondary.
 - C) tertiary.
 - D) quaternary.
 - E) none of the above are correct.
3. **Choose all that apply.** The pieces of tape on the pipe cleaners used in the model of protein folding represented
 - A) sulfhydryl groups.
 - B) hydrogen bonding R-groups.
 - C) non-hydrogen bonding R-groups.
 - D) amino acids.
 - E) covalent bonds.

Inquiry B Evaluation

1. After students have attempted to explain how a home hair permanent works, participated in guided discussion, and observed a model of the process, have them write a paragraph that explains the process.

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Inquiry C Evaluation

1. Which of the following proteins are functional at the tertiary level?
 - A) catalase
 - B) hemoglobin
 - C) insulin
 - D) ribosome
 - E) no proteins are functional at the tertiary level.
2. When enzymes fold and form particular shapes with regions that fit substrates, these regions are called
 - A) A-sites.
 - B) P-sites.
 - C) allosteric sites.
 - D) active sites.
 - E) none of the above are correct.
3. Chickens have proteins in their eggs that function as enzymes. Are these enzymes functional after cooking? Why or why not?