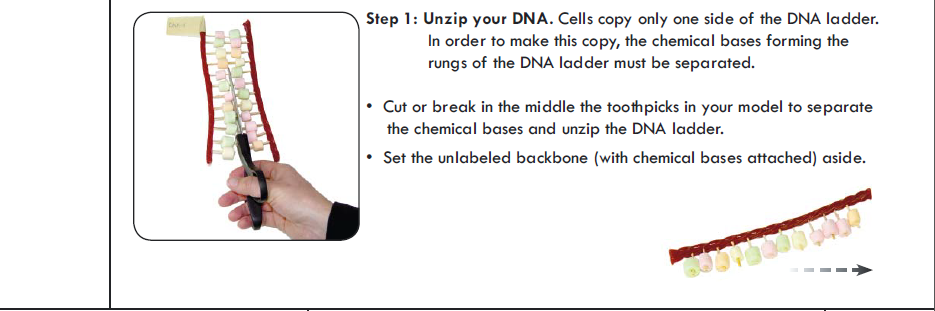
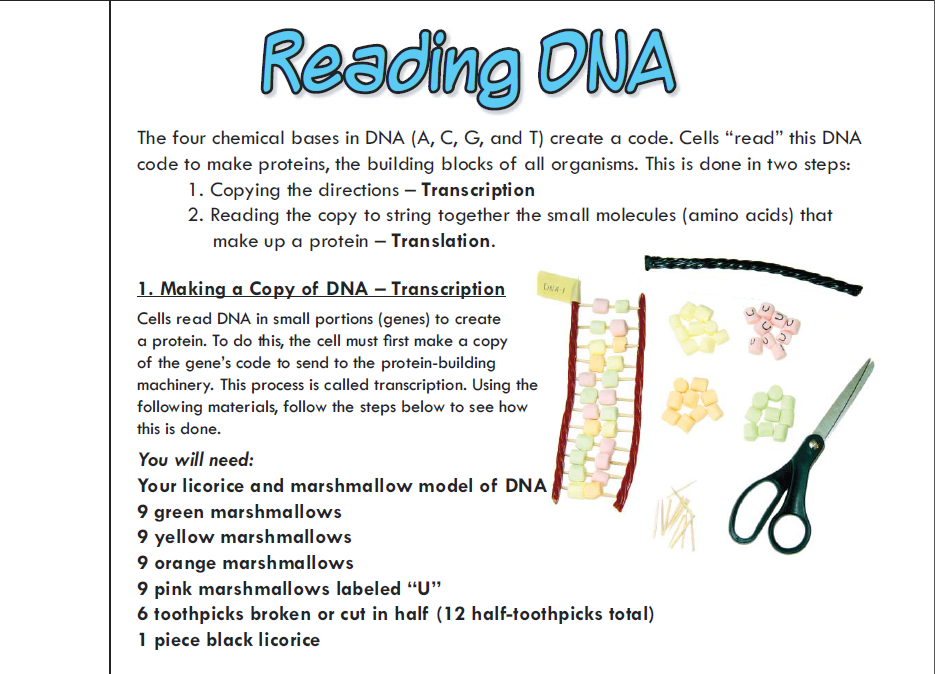
**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ Date:\_\_\_\_\_\_\_\_ Hour:\_\_\_\_\_**

**B4.2C** *Describe the structure and function of DNA.*

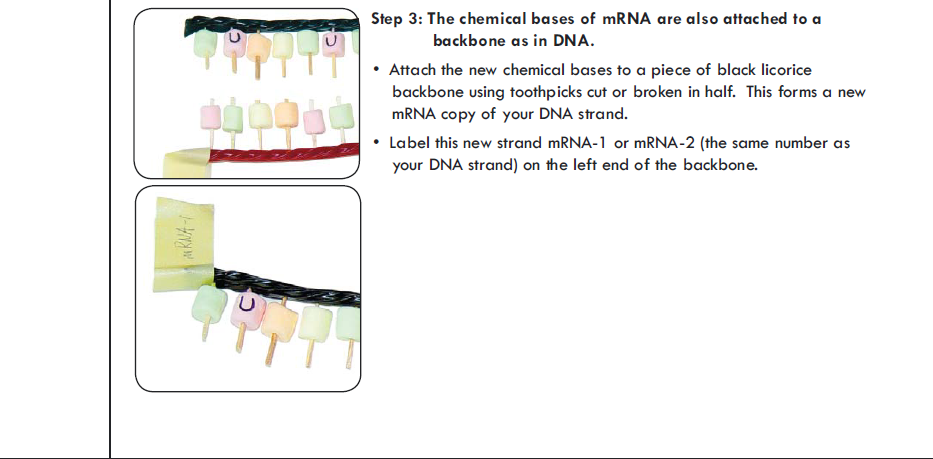
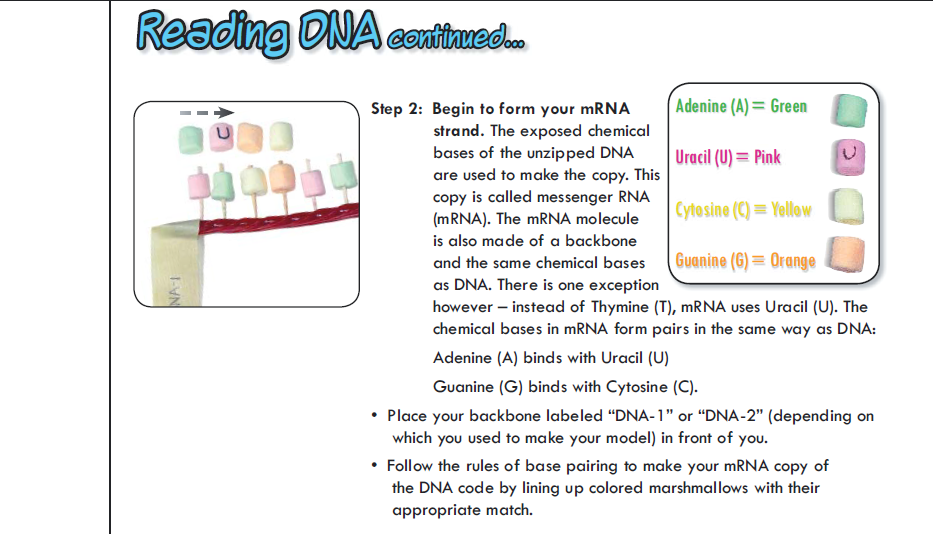
**B4.2f** *Demonstrate how the genetic information in DNA molecules provides instructions for assembling protein molecules and that this is virtually the same mechanism for all life forms.*

**B4.2g** *Describe the processes of replication, transcription, and translation and how they relate to each other in molecular biology.*

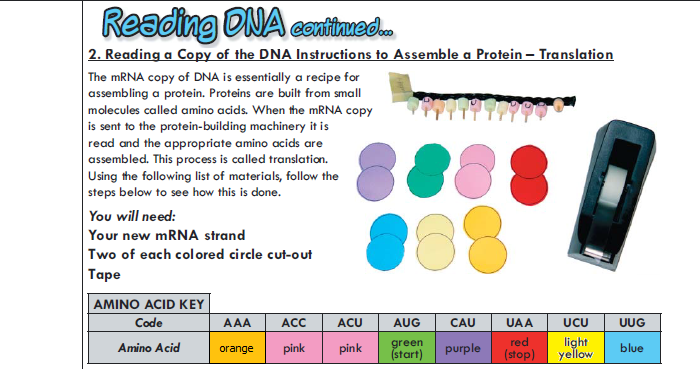


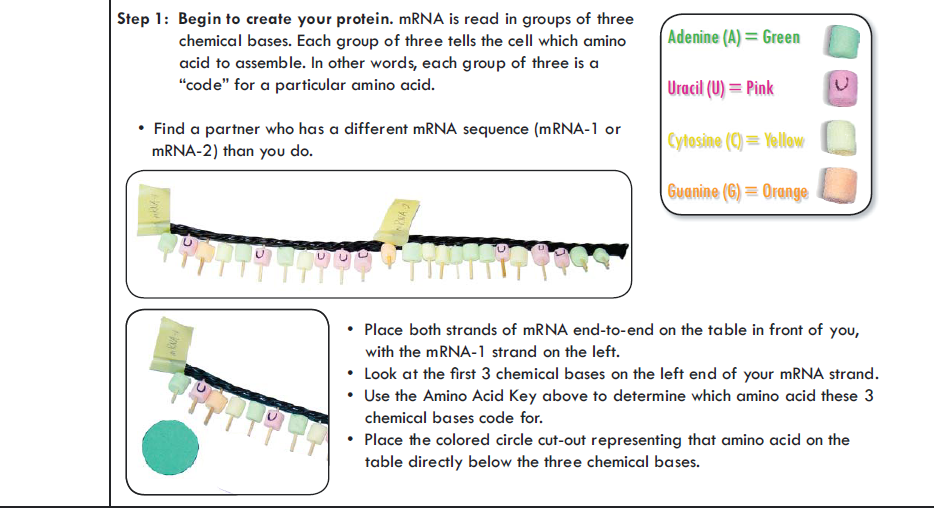
1. What is your DNA sequence?

a.\_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_



1. What is your complimentary RNA sequence?
2. \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_ \_

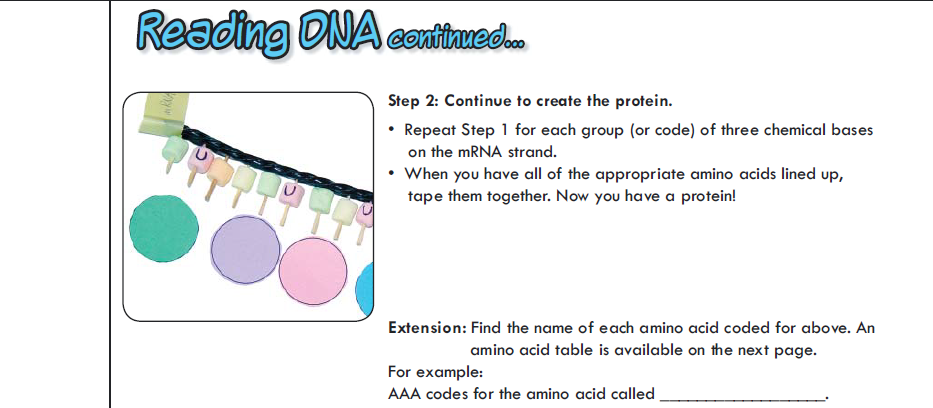


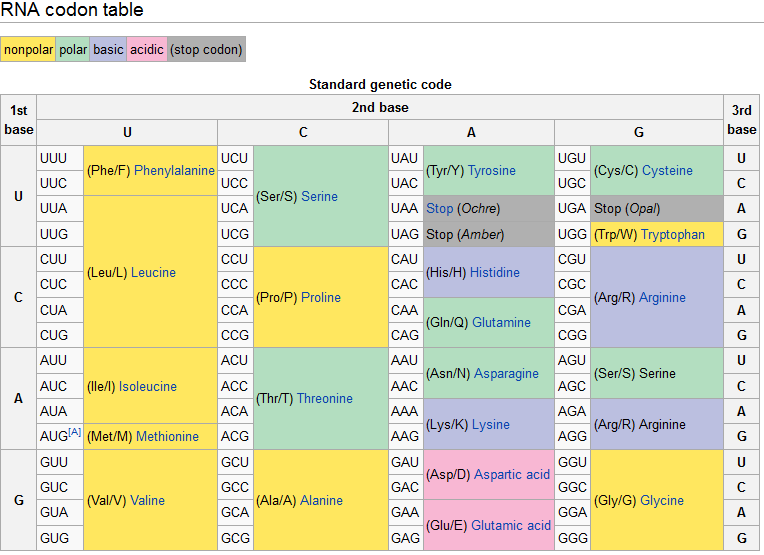




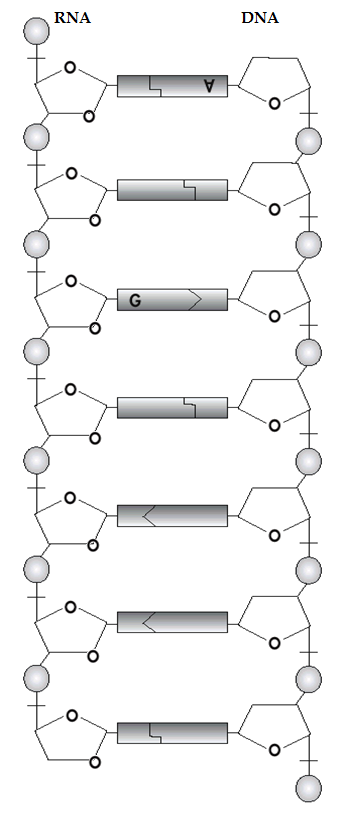
Have an instructor check your progress and have them initial below.

\_\_\_\_\_\_\_





1. Using the 3 letter abbreviation, what is your amino acid sequence (protein)?
2. \_\_-\_\_-\_\_-\_\_-\_\_-\_\_-\_\_-\_\_



1. The nitrogenous base A = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. The nitrogenous base C = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. The nitrogenous base G = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
4. The nitrogenous base U = \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
5. Label each sugar group on the diagram with a letter S.
6. Label each phosphate group with a letter P.
7. One adenine (A) and one guanine (G) have already been labeled. Label the rest of the nitrogenous bases.

1. Circle one nucleotide. What 3 things go together to make one nucleotide?
   1. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   2. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
   3. \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
2. What is the term for a 3-nucleotide sequence on mRNA that codes for an amino acid? \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_
3. In RNA, A is always paired with \_\_\_\_\_\_
4. In RNA, G is always paired with\_\_\_\_\_\_
5. With RNA, the shape of the molecule is called a \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_

Refer to the picture at the bottom.

1. What are the differences between DNA and RNA?

