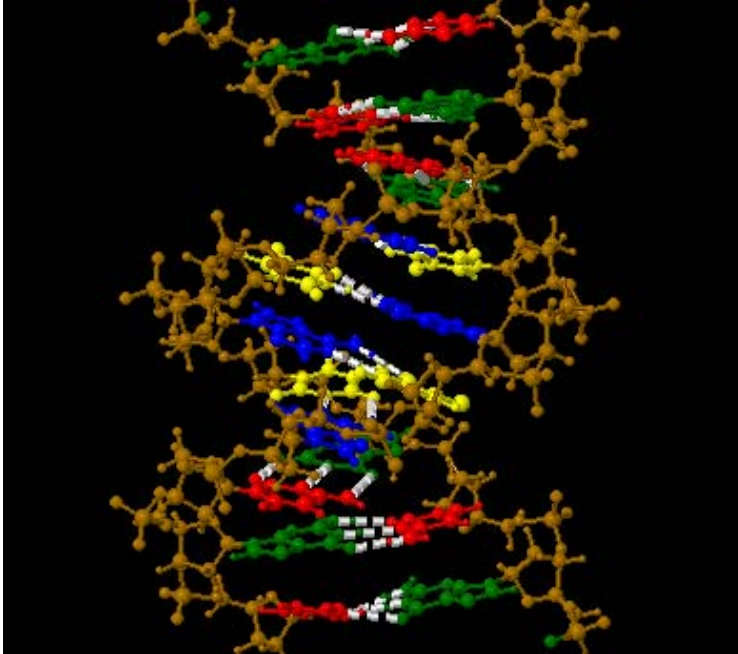


**Test for DNA Hybridization: Southern Blot activity**

Name \_\_\_\_\_ Teacher \_\_\_\_\_

Date \_\_\_\_\_ Class \_\_\_\_\_



1. In this model of DNA (above), the white dashed lines represent:  
(Circle the answer below.)

- a. Phosphorous groups
- b. Paired C-G nucleotides
- c. Hydrogen Bonds
- d. Covalent bonds

2. Southern Blot is one way to analyze the genetic patterns that appear in a person's DNA. Performing Southern Blot involves denaturing the DNA. What does denaturing do to the DNA?

3. DNA fingerprinting involves identifying the presence of DNA segments with specific sequences of DNA bases. Explain why it is important to think carefully about the design of your radioactive DNA probe and what issues you have to consider when designing this DNA sequence of this probe.



4a. Given the DNA strand depicted above, circle the strand below that would best hybridize to it?



4b. Would any sequence above partially hybridize? Why?

4c. Explain what happens as you raise and lower the temperature of a solution of double-stranded DNA.