

Name \_\_\_\_\_ Period \_\_\_\_\_ Date \_\_\_\_\_

### **Envisioning DNA: The Nature of Science and the Search for the Double Helix**

The Natural Selection, Spring 2003

1. How is science distinguished from other ways of knowing?
2. How old were Watson and Crick when they first met?
3. Why were proteins (and not DNA) thought to be the molecule of heredity?
4. What is the “transforming principle” (based on Fredrick Griffith’s experiment)?
5. Who discovered that the “transforming principle” was DNA?
6. What information was “at hand” for Watson and Crick when they began to decipher the structure of DNA?
7. What is “Chargaff’s Ratios”?
8. Who were Watson and Crick’s most notable collaborators?
9. Who was Linus Pauling and how was his model for the structure of DNA incorrect?

### **Collaboration and Competition – Rosalind Franklin’s Story**

The Natural Selection, spring 2003

1. Where did Rosalind Franklin work before joining King’s College?
2. Why might Wilkins and Franklin been manipulated into disliking each other?
3. How was Watson and Crick’s method of determining the structure of DNA different than that of Franklins’?
4. How might Franklin’s education and training limited her ability for creative thought?