

Name \_\_\_\_\_

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

## 3 *The Double Helix*

### A Personal Account of the Discovery of the Structure of DNA

—James D. Watson

#### Correlation to Subject Matter

The *Double Helix* is James D. Watson's personal account of his discovery of the molecular structure of DNA, for which he won the Nobel Prize, along with Maurice Wilkins and Francis Crick. Watson and Crick, who worked together as research scientists in the new field of molecular biology during the 1950s, returned again and again to the problem of understanding the structure of the DNA molecule.

The progress and success of other scientists—including Linus Pauling and his model of the alpha-helix, and other associates who were using X-ray photographs to look at the DNA structure—contributed to the DNA research of many scientists.

Watson became curious about the structure of DNA while still an undergraduate, but his lack of interest in chemistry or physics hindered his work on the problem. The collaboration of the two scientists enabled them to understand the nature of DNA and figure out its structure. Watson and Crick created a model based on special X-ray photographs that indicated the helical structure. Their model proved the molecular nature of DNA and therefore confirmed its two-stranded, helical structure.

#### Student Focus

In this book you will experience the literary nonfiction elements of narrative and biography. Focus on the topics of scientific inquiry and method as well. How did Watson develop his original hypotheses about the structure of DNA despite his reluctance to learn the essential chemistry and physics? Describe the collaborative work of Watson and Crick, along with other scientists.

#### Correlation to Subject Matter

Biochemistry, Molecular Biology, Physics, and Genetics