

Skills Worksheet

# Directed Reading

## Section: The Structure of DNA

In the space provided, write the letter of the description that best matches the term or phrase.

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|------------------------|---|
| _____ 1. double helix  | a. a five-carbon sugar  |
| _____ 2. nucleotides   | b. type of bond that holds the double helix together  |
| _____ 3. deoxyribose   | c. one of three parts of a nucleotide made of one or two rings of carbon and nitrogen atoms |
| _____ 4. DNA           | d. subunits that make up DNA  |
| _____ 5. hydrogen bond | e. one of two pyrimidines used as a nitrogen base in nucleotides                            |
| _____ 6. nitrogen base | f. one of two purines used as a nitrogen base in nucleotides                                |
| _____ 7. adenine       | g. abbreviation for deoxyribonucleic acid   |
| _____ 8. cytosine      | h. two strands of nucleotides twisted around each other                                     |

In the space provided, explain how the terms in each pair are related to each other.

9. base-pairing rules, complementary

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10. adenine, thymine

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11. cytosine, guanine

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**Directed Reading** *continued*

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**Read each question, and write your answer in the space provided.**

**12.** What was Chargaff's observation about the nitrogen bases in DNA?

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**13.** What role did the photographs of Wilkins and Franklin play in the discovery of the structure of DNA?

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**14.** What did Watson and Crick deduce about the structure of DNA?

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