

Assessment

Quiz**Section: The Structure of DNA**

In the space provided, write the letter of the term or phrase that best completes each statement or best answers each question.

- _____ 1. In 1928, the experiments of Griffith demonstrated transformation of
- harmless bacteria into disease-causing bacteria.
 - disease-causing bacteria into harmless bacteria.
 - heat-killed S bacteria into R bacteria.
 - S bacteria into heat-killed R bacteria.
- _____ 2. In 1952, Hershey and Chase used a bacteriophage to determine that genetic material is made of which of the following?
- protein
 - RNA
 - DNA
 - ^{35}S
- _____ 3. Avery's experiments showed that
- DNA is responsible for transformation.
 - proteins are responsible for transformation.
 - bacteriophages are responsible for transformation.
 - infectious bacteria are responsible for transformation.
- _____ 4. Each nucleotide in a DNA molecule consists of a
- sulfur group, a five-carbon sugar molecule, and a nitrogen base.
 - phosphate group, a six-carbon sugar molecule, and a nitrogen base.
 - phosphate group, a five-carbon sugar molecule, and an oxygen base.
 - phosphate group, a five-carbon sugar molecule, and a nitrogenous base.
- _____ 5. In 1953, Watson and Crick built a model of DNA with the configuration of a
- single helix.
 - double helix.
 - triple helix.
 - circle.

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

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| _____ 6. radioactive sulfur | a. forms hydrogen bonds with thymine |
| _____ 7. adenine | b. showed that A = T and C = G in DNA |
| _____ 8. Chargaff | c. used in the Hershey and Chase experiments |
| _____ 9. cytosine | d. pyrimidine found in DNA |