Lesson: DNA	Name:
Teacher:	Date:

DNA Worksheet

Multiple Choice (Choose the best answer)

1. What does DNA stand for?
A. Deoxyribonucleic Acid
B. Deoxyribose Nucleic Amino
C. Double Nucleotide Acid
D. Deoxyribose Nitrogen Array

2. Which part of a nucleotide forms the "rungs" of the DNA ladder?
A. Sugar
B. Phosphate
C. Nitrogen Base
D. Hydrogen

3. Adenine (A) always pairs with:
A. Cytosine (C)
B. Guanine (G)
C. Thymine (T)
D. Uracil (U)

4. What is the shape of DNA?
A. Single strand
B. Double helix
C. Circle
D. Sheet

5. Which component forms the **backbone** of DNA?
A. Nitrogen bases only
B. Sugar and phosphate
C. Proteins
D. Hydrogen bonds

True or False

6. DNA stores the instructions to make proteins. _____

7. Cytosine always pairs with Adenine. _____

8. DNA is found only in the nucleus of all cells. _____

9. A mutation is a change in the DNA sequence. _____

10. The sequence of nitrogen bases determines traits in an organism. _____

Matching (Match the term with the correct definition)

11. Match the terms with the correct definitions:

Column A
A. Nucleotide
B. Base Pair
C. Replication
D. Double Helix
E. Mutation

Column B

1. A change in the DNA sequence _____
2. Two complementary nitrogen bases connected together _____
3. The twisted ladder shape of DNA _____
4. The building block of DNA (sugar, phosphate, base) _____
5. The process of making an identical copy of DNA _____

Short Answer

12. List the four nitrogen bases of DNA.

13. Explain why base pairing rules are important for DNA.

14. What is the function of DNA in the cell?

15. Describe what a DNA double helix looks like.

Answer Key

Multiple Choice

1. A
2. C
3. C
4. B
5. B

True or False

6. True
7. False
8. False
9. True
10. True

Matching

A – 4
B – 2
C – 5
D – 3
E – 1

Short Answer (Sample responses)

12. Adenine (A), Thymine (T), Cytosine (C), Guanine (G)
13. Base pairing rules ensure DNA can be copied accurately, maintaining genetic information.
14. DNA stores the instructions for making proteins and controlling cell functions.
15. The DNA double helix looks like a twisted ladder, with sugar-phosphate backbones as the sides and base pairs as the rungs.