# Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_Date:\_\_\_\_\_\_\_\_\_\_\_\_\_\_Period:\_\_\_\_\_\_\_\_\_\_\_\_\_\_

1. What is DNA?

2. A \_\_\_\_\_\_\_\_\_\_\_\_\_ is a set of rules and symbols used to carry information.

3. How was DNA discovered?

4. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ made images of DNA using X-rays

5. \_\_\_\_\_\_\_\_\_\_\_\_\_\_ and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ perform experiments with viruses to confirm that DNA, not \_\_\_\_\_\_\_\_, carries genetic information.

6. \_\_\_\_\_\_\_\_\_\_\_\_\_\_and \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ use Chargaffs rules and the X-ray images of DNA to conclude that \_\_\_\_\_\_\_\_\_\_\_\_ looks like a long, \_\_\_\_\_\_\_\_\_\_ \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

7. What does DNA look like? Describe it and draw an example.

8. DNA is made up of \_\_\_\_\_\_\_\_\_\_\_\_\_\_.

9. What are the three components of a nucleotide? Draw an example of a nucleotide.

10 What are the four types of nucleotides found in DNA?

11. Of the four bases adenine always pairs with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and vice versa.

12. Of the four bases cytosine always pairs with \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, and vice versa.

13. How are copies of DNA made?

14. If one strand of DNA has this code below what would the other strand’s code be?

TAC GGG CGA AGC TTT ATG CGA TCG GCA

15. Changes in the number, type, or order of bases on a piece of DNA are known as \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_.

16. How do mutations happen?

17. How are DNA and RNA different?

1

2.

3.

18. What role does DNA have in making proteins?

19. What role does RNA have in making proteins?

20. A \_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_ is a cell organelle made of rRNA and Protein. It is the site in a cell where proteins are made.