

Name: \_\_\_\_\_ Date: \_\_\_\_\_ Period: \_\_\_\_\_

**DNA Unit: DNA Webquest**

**Part 1 – History, DNA Structure, DNA Replication**

**DNA History**

<http://www.dnafb.org/dnafb/1/concept/index.html>

Read the text and answer the following questions.

1. What have people wondered since the beginning of human history? \_\_\_\_\_
2. Who discovered that individual traits are passed on from one generation to the next? In what year? \_\_\_\_\_

**On the menu at the right click on number 15 "DNA & proteins are key ...."**

3. When was DNA discovered as a major chemical of the nucleus of cells? \_\_\_\_\_
4. In the early 1900s what molecule was considered to be a better candidate to transmit hereditary information from one generation to the next? \_\_\_\_\_
5. Why was protein considered to be a better candidate as the hereditary molecule than DNA? \_\_\_\_\_

**On the menu at the right click on number 16 "one gene makes one protein"**

6. What was the conclusion made by Beadle & Tatum? What year was this? \_\_\_\_\_

**On the menu at the right click on number 17 "a gene is made of DNA"**

7. What did Oswald Avery's team of scientists conclude from their experiments? In what years? \_\_\_\_\_

**On the menu at the right click on number 19 "The DNA is shaped like a twisted ladder"**

8. What did earlier work on DNA show? \_\_\_\_\_
9. Who won the race to show the 3-dimensional structure of DNA? \_\_\_\_\_
10. What year was this? \_\_\_\_\_

**Click on animation at the bottom of your screen (step through the animation and answer the following questions)**

11. What makes up a nucleotide? \_\_\_\_\_
12. How could DNA be an "intelligent molecule" (carry hereditary information)? \_\_\_\_\_
13. What was Erwin Chargaff's contribution to the DNA puzzle? \_\_\_\_\_
14. What important tool did Linus Pauling use to determine the structure (shape) of proteins? \_\_\_\_\_
15. How was this tool used to help discover the shape of DNA? \_\_\_\_\_
16. Name the two scientists that made the x-ray diffraction patterns that Watson & Crick used? \_\_\_\_\_
17. The distinctive "X" meant the DNA had what pattern? \_\_\_\_\_