Name: **Date:** **Period:**

DNA Unit: DNA Webquest

Part 1 – History, DNA Structure, DNA Replication

DNA History

http://www.dnaftb.org/dnaftb/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 make 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? _____