

Name _____ Date _____

Cracking the DNA Code

Use the following website, <http://www.dnai.org> , to complete this activity about the research that lead to the discovery of DNA's structure.

Click on "Code" from the menu on the website first page, then click on "Finding the Structure".

Part 1: Using the "Problem" Section, answer the following questions.

1. How did Miescher's contribute to our knowledge of DNA?
2. Which tool of science assisted Miescher in his discovery? How was the tool useful?
3. After Miescher, other scientists determined the "nuclein" contained lots of ...
4. Eventually DNA was determined to be a long chain that contained ...
5. Which molecule, DNA or protein, carries the information of hereditary? Who and how was this determined?

Part 2: Using the "Players" and "Pieces of the Puzzle" Sections, provide a short summary of the contribution of each of the following scientists to the structure of DNA.

1. Erwin Chargaff
2. Rosalind Franklin
3. Linus Pauling
4. James Watson and Francis Crick
5. Maurice Wilkins

Part 3: Using the putting it together section, click on the base pairing interactive section and follow the instruction on the screen to determine the structure of DNA. Provide a diagram of DNA, which shows the general shape of the DNA molecule with the nitrogen bases (A, T, C and G), sugar and phosphate in the correct location. How can the 3D structure of DNA be described?