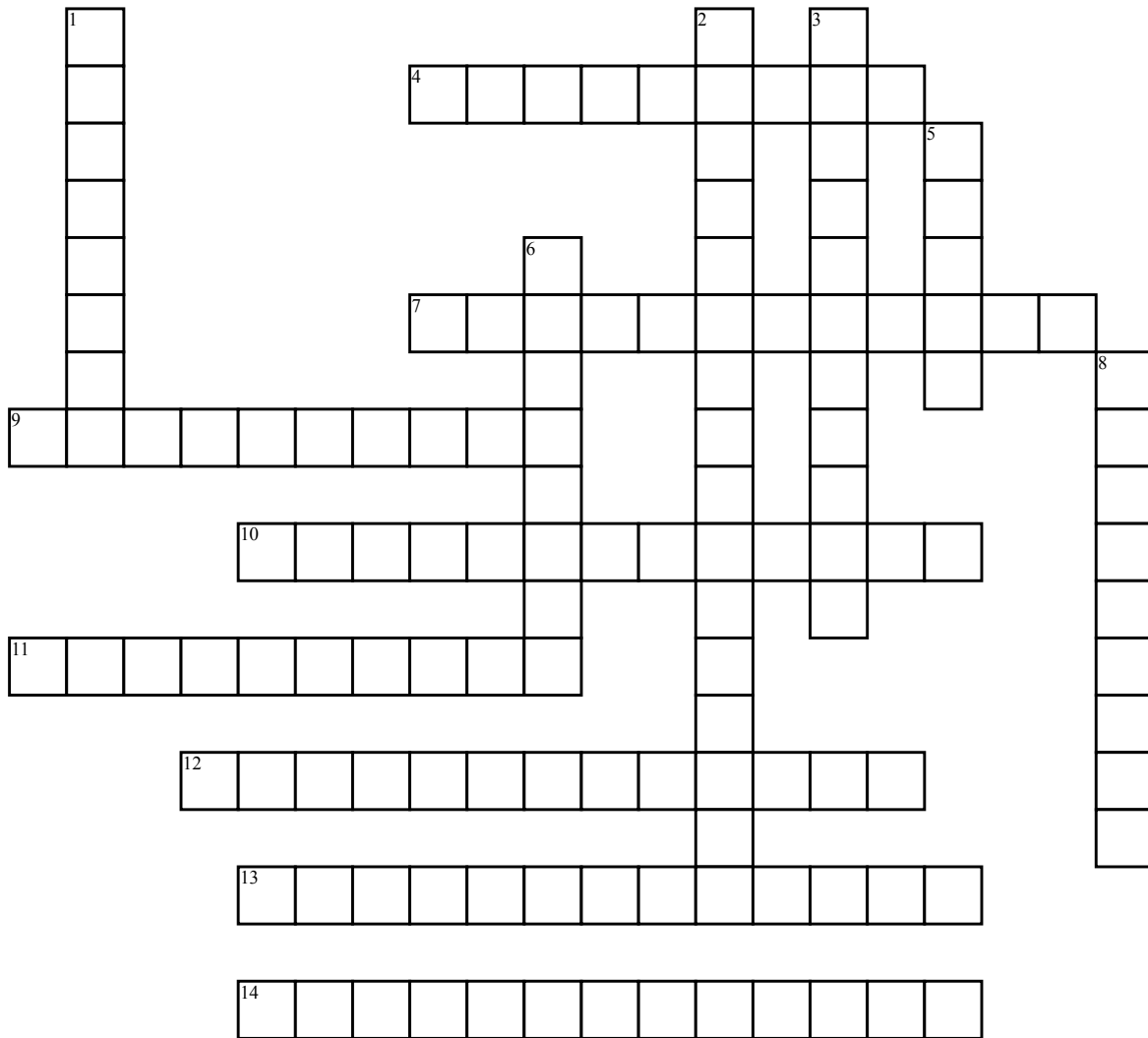


History of the Structure of DNA



Across

4. Watson and Crick were able to identify that the base pairs, A, G, T, and C were pairs that could be fitted between two helical sugar phosphate ____ of DNA (U.S. National Library of Medicine).
7. James Watson and ____ are credited for identifying the structure of a DNA strand.
9. Due to the discovery of the structure of DNA many ____ like genetic engineering, rapid gene sequencing, and monoclonal antibodies have been invented (U.S. National Library of Medicine).
10. Scientist ____ is credited for determining that the backbone of a DNA molecule is a phosphate and deoxyribose sugar (U.S. National Library of Medicine).
11. Without the discoveries made by _____, inspiration and knowledge to research gene mapping, forensics, and genetic fingerprints wouldn't have happened.

12. The discovery of the structure of DNA developed the multi billion dollar _____ industry.

13. Due to the ____ base pairing of the A and T, and G and C, it was determined that the strands could be separated (U.S. National Library of Medicine).

14. Scientist ____ determined that adenine (A) and thymine(T) appeared in one to one ratio, as well as guanine (G) and cytosine(C) (U.S. National Library of Medicine).

Down

1. Watson and Crick were able to identify that DNA backbones traveled in ____ directions.
2. _____ was credited for determining that DNA was shaped like a corkscrew (U.S. National Library of Medicine).
3. Each strand of DNA serves as a template to form a new strand during DNA _____.

5. The discovery of DNA being a double stranded _____ molecule that can copy itself was a remarkable discovery for the world because it allowed scientists to understand how genes control the chemical processes within a cell.

6. With Crick's background in physics and X-ray crystallography and _____ background in viral and bacterial genetics; they were able to identify the structure of DNA using pre-existing experiments (U.S. National Library of Medicine).

8. It was quickly discovered by scientists that without the knowledge of the _____ of DNA many other biological questions could not be answered.