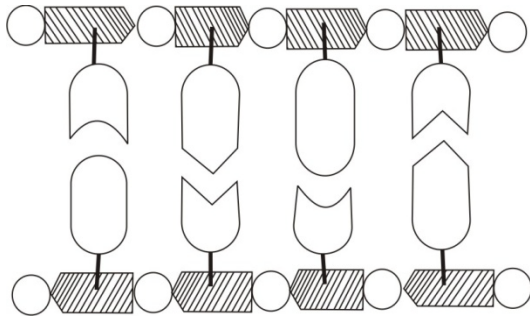


Name _____

Date ____ / ____ / ____

STRUCTURE OF DNA

DNA molecules consist of a sequence of nucleotides, each of which consists of a phosphate, a deoxyribose sugar and a nitrogenous base. In the diagram, label these three nitrogenous bases are shown in the nucleotides at the right. On the blanks below, write the name of the nitrogenous base corresponding to the letter symbol.



A = _____ adenine _____

C = _____ cytosine _____

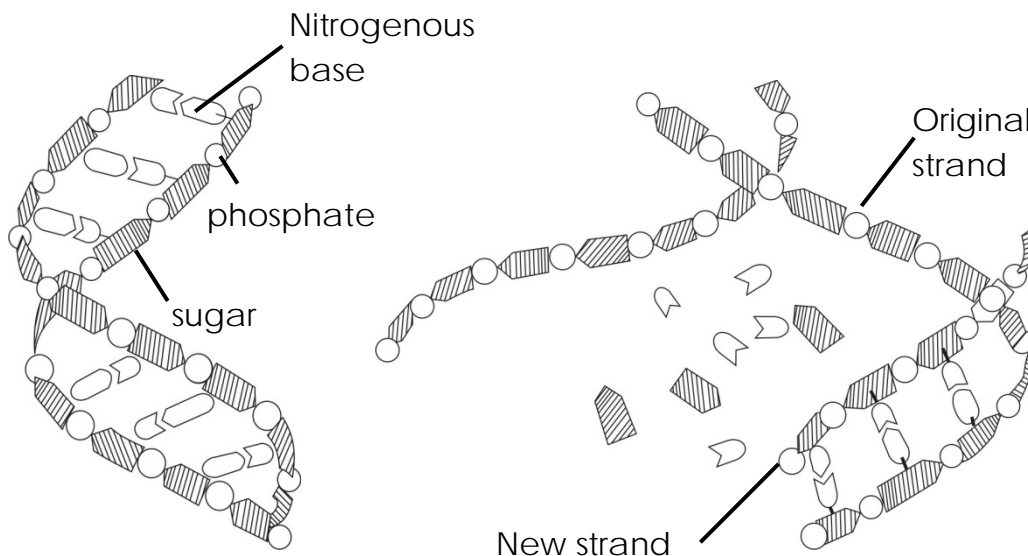
G = _____ guanine _____

T = _____ thymine _____

DNA molecules have a double helix shape. Two strands of DNA twist around one another and are attached by hydrogen bonds between the matching bases on each chain. Adenine always pairs with thymine, and cytosine always pairs with guanine.

In the illustration at the left below, label a phosphate, a deoxyribose sugar, and a nitrogenous base.

The diagram at the right shows the replication of DNA. Label the original strand and the new strand.



Provide the missing terms in the blanks below.

The three-dimensional structure of DNA was determined by two scientists named _____ and _____. They determined that the DNA molecule was shaped like a _____. During replication, _____ identical strands of _____ are produced. These strands contains sequences of _____ and some of these code for proteins and are called _____.