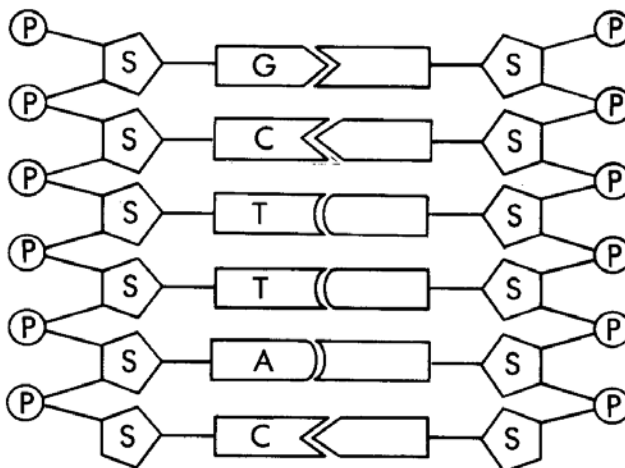


Name: _____

1. What are the three parts of a nucleotide?
2. What are the four nitrogen-containing bases?

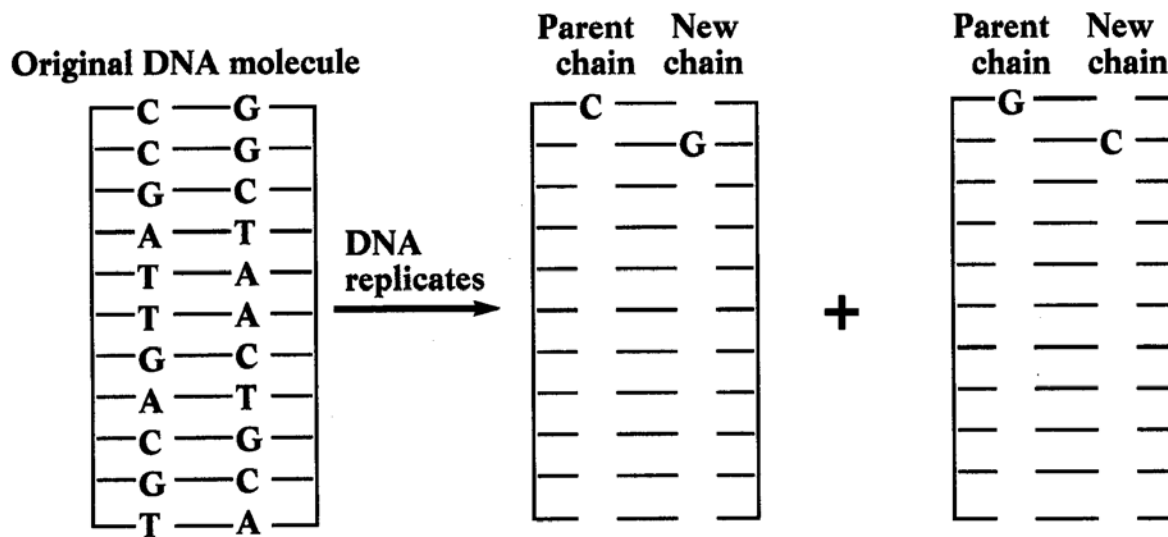
3. Complete the diagram of this part of a DNA molecule by writing the letter of each missing base. Use these choices:

- C = Cytosine
- A = Adenine
- G = Guanine
- T = Thymine



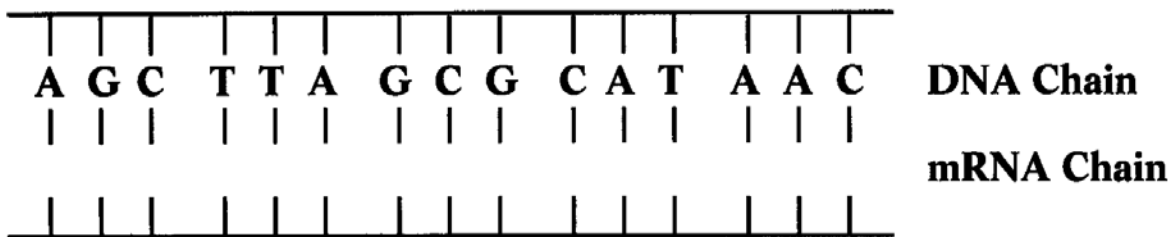
4. What does DNA replication make?

5. Label the diagram by completing the sequence of nitrogen base pairs in the new DNA molecules. Use these letters: A, T, C, G.



Name: _____

6. Label the diagram by completing the sequence of nitrogen bases in the mRNA. Use these letters: A, U, C, G, T.



7. Complete the table by checking the correct column for each statement.

Statement	True for DNA	True for RNA
Contains ribose		
Composed of a double chain of nucleotides		
Contains deoxyribose		
Contains uracil		
Contains thymine		
Composed of a single chain of nucleotides		

8. Use the following key to identify the codons for each amino acid. Then, in the table, write the name of the amino acid for each codon. The first one has been completed for you.

	DNA	mRNA Codon	Amino Acid	Amino Acid	Codon
1	AGC	UCG	serine	phenylalanine	UUU, UUC
2	AAA			leucine	UUA, UUG, CUC
3	ACG			serine	UCU, UCC, UCA, UCG
4	GAG			histidine	CAU, CAC
5	GTC			glutamine	CAA, CAG
6	GTA			cysteine	UGU, UGC
7	ATT			stop	UAA

9. What are three types of RNA?

10. A gene is a segment of a DNA molecule that carries a code for making a particular _____.