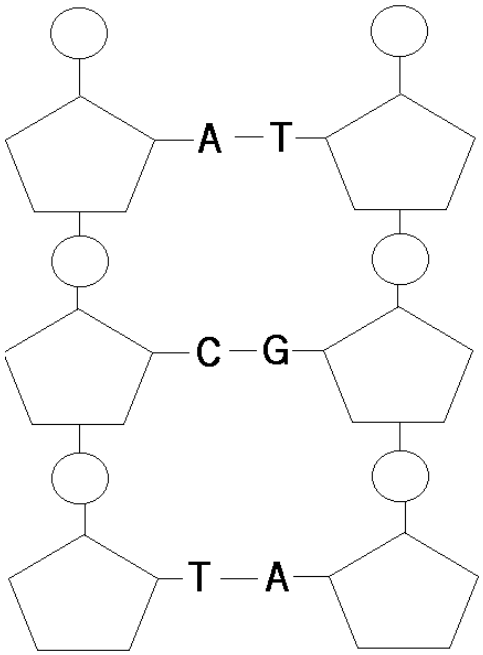
Name: _____ Date: _____ Period: _____

Biology: DNA and RNA Review

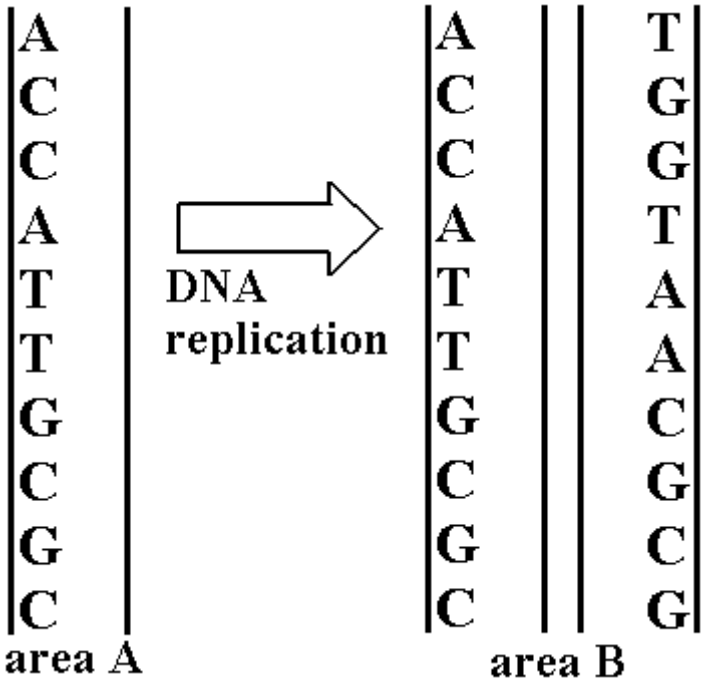
DNA Basic Information



1. How many nucleotides are shown in the DNA segment pictured?_____
2. Circle any **nucleotide** on the DNA segment.
3. Name the **three parts** of a nucleotide.
   a. _____
   b. _____
   c. _____
4. Use the letters P and S to label the sugar (deoxyribose) and phosphate of the DNA molecule.
5. Which part does the **phosphate** molecule connect with?_____

DNA Replication: Use your understanding of DNA replication to solve the questions below.

6. The diagram below shows DNA replication.
   a. In area A, match the missing DNA bases from the strand given.
   b. In area B, perform replication and fill in the two new strand of DNA.
   c. After filling in the correct DNA bases in area B, are the two strand of DNA identical?
      YES NO



Transcription: Use your understanding of transcription to answer the questions below.

7. Define TRANSCRIPTION: _____

_____

_____

8. Name the four **RNA** bases.

a. _____ c. _____

b. _____ d. _____

9. Fill in the **RNA** bases from the given DNA bases.

DNA strand A A T C C G C T A G

RNA strand _____

10. Fill in the **DNA** bases from the given RNA bases.

RNA strand U C G U A C C A U U

DNA strand _____

11. Fill in the missing bases from the strands of DNA and RNA.

A T C G T

G U U A U

12. Examine #11. Is the top strand a piece of DNA or RNA? Explain your answer.

_____

_____

_____

_____