

Name \_\_\_\_\_

Date \_\_\_\_\_

# DNA Replication

## Worksheet

### How DNA Is Copied

1. What does it mean that the two strands of DNA are complementary?  
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2. What is DNA replication?  
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3. Using your notes , book, and this assignment, place the steps of DNA replication in the correct order.
  - ..... a. The enzyme DNA polymerase moves along the exposed strands and adds complementary nucleotides to each nucleotide in each existing strand.
  - ..... b. The DNA double helix breaks or unzips down the middle between the base pairs.
  - ..... c. A complementary strand is created for each of the two strands of the original double helix.
  - ..... d. Two new identical DNA molecules have been produced.
4. (True or False) The process of DNA replication results in a copy of the original DNA molecule.
5. (True or False) DNA does not have to break apart to be copied.
6. (True or False) After DNA replication is complete, there are two new DNA molecules; one molecule has both of the original strands and one molecule has two new strands of DNA.

7. Where does DNA replication happen?  
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8. When does DNA replication happen?  
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9. Below are DNA strands. Make the complementary DNA strand:

Original Strand: A T G C A A A T T G C T C A C C G G G G A T C A G C A C C G G

Complementary Strand:  
.....  
.....

Original Strand: A G G G G A T C A G C A C C G G A T T T C A T G A G C C C T A

Complementary Strand:  
.....  
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Original Strand: A A G T A C G A T C G A T G C A C A T G C A T G G C T A C G C

Complementary Strand:  
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