

# Genetics

Name:

## DNA Benchmark Review

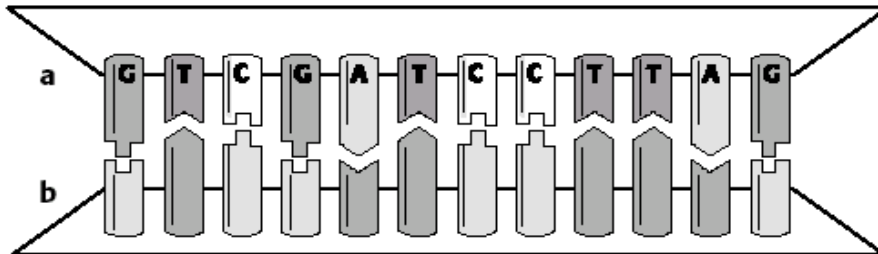
Period:

Use your brain to answer the following questions, then check your work using Chapter 7.

- \_\_\_\_\_ 1. A gene can be all of the following EXCEPT
- a. a set of instructions for a trait.
  - b. a complete chromosome.
  - c. instructions for making a protein.
  - d. a portion of a strand of DNA
- \_\_\_\_\_ 2. Which of the following statements about DNA is NOT true?
- a. DNA is found in all organisms.
  - b. DNA is made up of five subunits.
  - c. DNA has a structure like a twisted ladder.
  - d. Mistakes can be made when DNA is copied.

Use the illustration below to answer the next question.

3. What is the order of bases on strand B? Write the letter code for the base on the rung.



The illustration shows the process of replication of a DNA strand. Use the illustration below to answer the next two questions.

4. Circle the letters that identify the two new strands that are being added to the original strands.



5. You are using a microscope to observe a cell that is ready to divide. What does the DNA look like?
6. What does the DNA look like in a cell that is not ready to divide?