

Genetics

Name:

Changes in Genes

Period:

Use Chapter 7, Section 2 of your textbook to answer the questions below.

Changes in Genes (p.216)

1. Changing just one _____ in a sentence can change the meaning of the sentence.
2. A _____ is a change in how the bases in a DNA sequence are arranged.

How Do Mutations Happen? (p.216)

3. Mutations can happen when DNA is _____ before the cell divides.
4. Lots of mutations are the result of _____ errors that happen during DNA copying.
5. DNA can also be damaged by things in the _____ around the organism.

_____ 6. What are things in the environment that can cause mutations called?
a. DNA b. proteins c. nucleotides d. mutagens

_____ 7. Which of the following is NOT a mutagen?
a. asbestos b. cigarette smoke c. protein d. sunlight

Do Mutations Matter? (p.217)

Match the correct description with the correct term. Write the letter in the space provided.

- _____ 8. kind of mutation that makes it easier to survive a drought a. harmful trait
- _____ 9. kind of mutation that does not change the protein a gene codes for b. improved trait
- _____ 10. kind of mutation that makes it easier to be found by a predator c. no change

base sequence in original cell with original DNA	base sequence in cell with mutated DNA
C G	C G
T A	T A
A T	A T
C G	A T
G C	G C
A T	T A
T A	T A

Look at the table to the left. Circle the two mutations that happened when the original cell duplicated its DNA to prepare for mitosis.



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