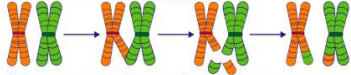




Name \_\_\_\_\_ Class \_\_\_\_\_ Date \_\_\_\_\_

1

The diagram below shows a process that can occur during **meiosis**.



The most likely result of this process is

- A a new combination of inheritable traits that can appear in the offspring
- B an inability to inherit these chromosomes
- C a loss of genetic information
- D an increase in the chromosome number

2

A sudden change in the **DNA** of a **chromosome** can usually be passed on to future generations if the change occurs in a

- A skin cell
- B liver cell
- C sex cell
- D brain cell



3

A change in the order of **DNA bases** that code for a **respiratory protein** will most likely cause

- A the production of a starch that has a similar function
- B the digestion of the altered gene by

4

During meiosis, **crossing-over** (gene exchange between chromosomes) may occur. **Crossing-over** usually results in



5



## PREVIEW

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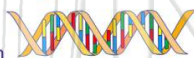
7

- C result in different genetic sequences
- D occur to meet the needs of a species

- sunlight is present
- B a different species of corn that is produced in sunlight
- C the effect of sunlight on the number of chromosomes inherited
- D the effect of environment on gene expression

9

What determines the kind of **genes** an organism possesses?



- A type of amino acids in the cells of the organism
- B sequence of the subunits A, T, C, and G in the DNA of the organism
- C size of simple sugar molecules in the organs of the organism
- D shape of the protein molecules in the organelles of the organism

10

If a set of instructions that determines all of the characteristics of an organism is compared to a book, and a chromosome is compared to a chapter in the book, then what might be compared to a **paragraph** in the book?

- A a starch molecule
- B an egg
- C an amino acid
- D a DNA molecule

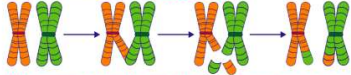




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