

Name: \_\_\_\_\_

Blk: \_\_\_\_\_ Date: \_\_\_\_\_

## Science 9 Notes on Meiosis Continued

### **Chromosome mutations sometimes occur spontaneously:**

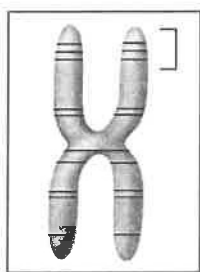
Chromosome changes during meiosis can cause changes in the \_\_\_\_\_ . Parts of chromosomes can be:

1. \_\_\_\_\_

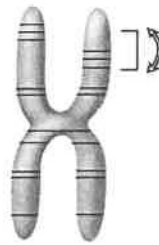
3. \_\_\_\_\_

2. \_\_\_\_\_

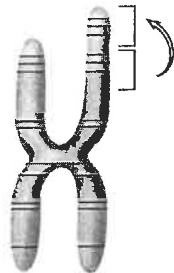
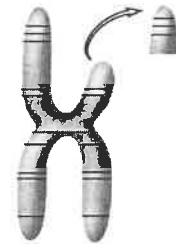
4. \_\_\_\_\_



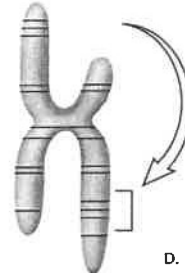
A. Part of the chromosome can be inverted.



C. Part of the chromosome can be lost or deleted.



B. Part of the chromosome can be duplicated.



D. Part of the chromosome can move to a different region in the chromosome.

Figure 6.8 Several types of chromosome mutations

### **Chromosome mutations can occur because of mutagens:**

Chromosome changes, sometimes leading to genetic disease or death, can be caused by \_\_\_\_\_ such as \_\_\_\_\_ or \_\_\_\_\_ .

### **Failed separation of chromosomes in meiosis has serious consequences:**

Failed separation means that a gamete may end up with \_\_\_\_\_ chromosome or \_\_\_\_\_ of a chromosome. Zygotes that result from these gametes rarely survive, and if they do, they will have \_\_\_\_\_ genetic disorders.

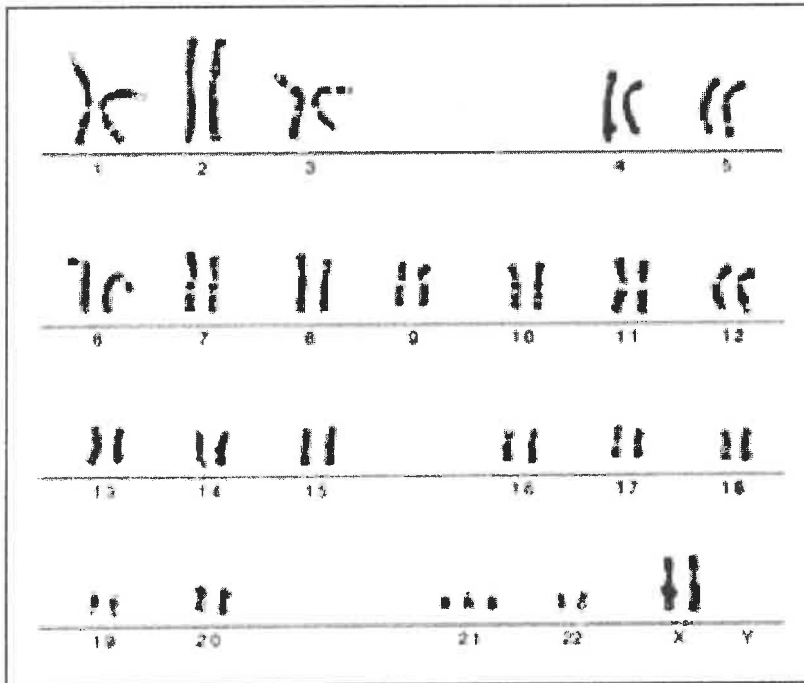
**Genetic Disorders:**

**The chromosomes of an individual can be studied**

By using a \_\_\_\_\_, geneticists can view an individual's chromosomes.

Certain genetic disorders or syndromes occur when there are specific chromosomes extra or missing

\_\_\_\_\_ usually occurs when there is an extra \_\_\_\_\_ chromosome.



**Ex.** \_\_\_\_\_