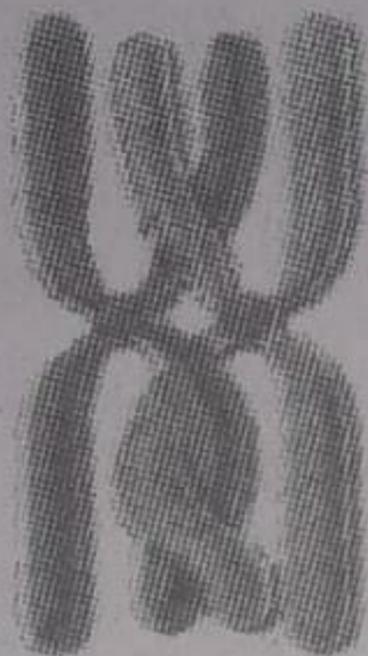


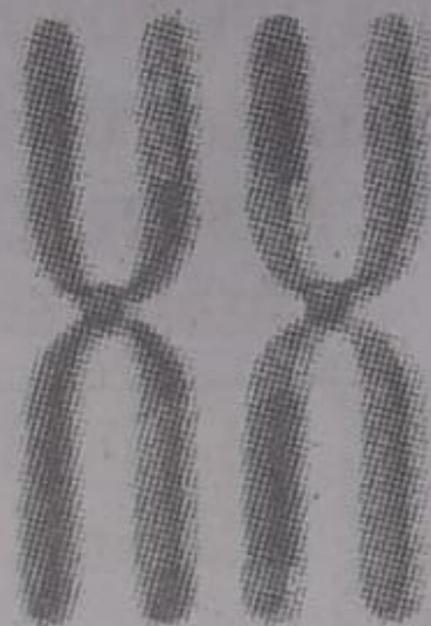
## Crossing over in chromosomes: A source of variation



Stage 1



Stage 2



Stage 3

During the initial phase of meiosis, chromosomes pair and exchange their parts. This process is called crossing over. As a result of this, part of a DNA crosses over to become the part of another DNA. This causes a difference in the distribution of genes. When these chromosomes are transferred to the next generation, it causes the expression of new characters in offsprings.

### Combination of Allele during fertilization

When gametes undergo fusion, the combination of allele changes. This causes the expression of characteristics in offsprings that are different from parents. Thus fertilization causes variations in the next generation.