

- **Crossing over of chromosomes**
During the initial phase of meiosis, chromosomes pair and exchange their parts. This process is called crossing over of chromosomes.
- Crossing over has a role in the formation of variations. During crossing over one part of DNA breaks and 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.

17. How does fertilization become a cause of variation?

When gametes undergo fusion, the combination of alleles changes. This causes the expression of characteristics in offspring that are different from parents.

18. What is meant by mutation?

A sudden heritable change in the genetic constitution of an organism is called mutation.