

## Meiosis Objectives

Define these key terms:

reproduction zygote gonads fertilization gametes somatic cells meiosis ova  
sperm cell ovaries testes haploid (monoploid-n) number diploid (2n) number  
homologous chromosome synapsis tetrad polar bodies crossing-over disjunction

- Define reproduction.
- Differentiate between sexual and asexual reproduction.
- Explain the advantages for sexual reproduction.
- Recognize that meiosis takes place in the gametes located in gonads and mitosis in somatic cells.
- Explain how meiosis maintains the diploid number in humans.
- Explain the importance of chromosomes forming a tetrad and crossing-over during the first meiotic division.
- Describe the second meiotic division.
- Explain how meiosis allows for variations in organisms.
- Memorize the sequenced events for meiotic cell division.
- Examine the processes of oogenesis and spermatogenesis using a diagram.
- Define karyotyping.
- Provide two examples where nondisjunction can occur.