

STUDY GUIDE: MEIOSIS

KEY TERMS

meiosis
chromosome
chromatid
centromere
diploid
haploid
gamete
homologous chromosomes
synapsis
tetrad

prophase I
metaphase I
anaphase I
telophase I
prophase II
metaphase II
anaphase II
telophase II
crossing over
chiasmata

QUESTIONS

1. List the stages of meiosis and describe the principle events in each phase; indicate when and how synapsis and separation of homologous chromosomes occur.
2. Define haploid, diploid, homologous chromosomes, somatic and sex chromosomes, synapsis.
3. Discuss the significance of meiosis. (i.e. What is the significance of meiosis to genetics?)
4. How is meiosis related to gametogenesis?
5. How does meiosis contribute to variation during sexual reproduction.