

Study guide for chapter 12

From page: (295)

What cell reproduction accomplishes:

- What is reproduction, cell division?
- What are the important roles of cell division?
- What are the types of reproduction?
- What is asexual reproduction? Which division is responsible for this type?
- What are the different kinds of asexual reproduction? In single-celled and multi-celled organisms.
- What is sexual reproduction? Which division is responsible for this type?
- What is a chromatin, nucleosome, histone?

Chromosome duplication:

- What is sister chromatid, centromere?

The cell cycle:

- What is the cell cycle? What are the stages or phases in cell cycle?
- Interphase phase: importance (G1, S, G2 phases) the importance of each phase.
- Mitotic phase:
- What is Mitosis?
- What is cytokinesis? How is it differ in animal cell and plant cell?

Meiosis, The basis of sexual reproduction:

- What is karyotype, homologues chromosome, autosome, and sex chromosome?

Gametes and the life cycle of a sexual organism:

- What is difference between haploid and diploid cell?
- What is fertilization and zygote?

The process of Meiosis:

- How many divisions are in the meiosis?

Comparing Mitosis and Meiosis:

- What are the similarities and differences between Mitosis and Meiosis?

Genetics and Heredity:

- Define genetics and heredity?
- What was Mendel's accomplishment?
- What is the difference between a character and trait? Give example
- Define the following: locus, allele, punnet square, homozygous, heterozygous, phenotype, and genotype.
- What is a family pedigree, wildtype traits?
- Give examples of inherited human traits that thought to be determined by simple (dominant/recessive) inheritance of one gene

ABO Blood group:

- How many alleles are involved in blood grouping? What are the four phenotypes?
How many genotypes?

Sex determination in human:

- How gender is determined in human?
- What is sex-linked gene?