

Mendelian and Human Genetics

Objectives

1. Know Mendel's laws for genetics.
2. Analyze genetic probability problems using a variety of mathematical techniques.
3. Understand the relationship between genotype and phenotype.
4. Compare and contrast the following different types of inheritance: dominant/recessive, co-dominance, multiple alleles, sex linkage, polygenic inheritance.
5. Describe different types of genetic disorders.
6. Describe Morgan's contribution to genetics.
7. Understand how recombination data is used to map chromosomes.
8. Describe the role of the sex chromosomes in genetics.
9. Describe different disorders based on chromosomal abnormalities.

Key Terms

Chapter 14

alleles
consanguineous
cystic fibrosis
epistasis
F1 generation
F2 generation
genotype
Gregor Mendel
heterozygous
homozygous
Huntington's disease
Mendel's law of segregation
P generation
phenotype
pleiotrophy
sickle-cell disease
Tay-Sachs disease

Chapter 15

aneuploidy
barr body
chromosome theory of inheritance
cytological maps
deletion
Drosophila melanogaster
Duchenne muscular dystrophy
duplication
genetic recombination
hemophilia
inversion
linkage map
monosomic
nondisjunction
polyploidy
sex linked genes
Thomas Hunt Morgan
translocation
trisomic