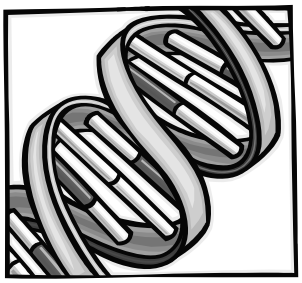
BIOLOGY 8923 v3
Describe mechanisms for the transfer of genetic information

Genetics

Level 1, 3 credits



Describe mechanisms for the transfer of genetic information

You will be able to:

- ❑ describe
  - o a simple cell: cell wall (plants), cell membrane, cytoplasm, nucleus, nuclear membrane
  - o the relationship between chromosomes and genes

- ❑ describe mitosis
  - o sequence diagrams showing the process of mitosis
  - o describe what is happening during the events of mitosis using appropriate scientific terms (names of stages are NOT required)
  - o relate the process of mitosis to growth

- ❑ describe meiosis
  - o sequence diagrams showing the process of meiosis
  - o describe what is happening during the events of meiosis using appropriate scientific terms (names of stages are NOT required)
  - o relate the process of meiosis to reproduction

- ❑ determine simple monohybrid inheritance patterns
  - o explain and use the terms genotype and phenotype
  - o explain what dominant and recessive alleles are
  - o use the terms homozygous and heterozygous
  - o draw and use Punnett squares for simple monohybrid crosses involving only one pair of alleles showing
    - complete dominance, or
    - sex linkage.
  - o predict genotype ratios in offspring over two generations
  - o predict phenotype ratios in offspring over two generations
  - o explain observed phenotype ratios in terms of dominant and recessive alleles