1. Describe the process of crossing over and link that to the chromosomal basis of inheritance. Specifically, address the issues of chromosomes and the laws of segregation and independent assortment.

One aspect of life is the ability to replicate itself. DNA replication and the central dogma of molecular biology (DNA-RNA-protein).

1. Describe the basic structure of DNA. Be sure to include a discussion of the major components that make up a DNA molecule, and also the differences between DNA and RNA.
2. Describe the locations, reactants, and the products of transcription.
3. Describe the locations, reactants and products of translation.
4. Define mutation and describe the major types of mutations, possible causes of mutations, and potential consequences of a mutation event.