Odukoya Treasure

18/MHS05/010

Physiology

BCH 204

1. Highlight the steps of DNA replication.
2. Initiation
* Proteins bind to DNA and open up double helix
* Prepare DNA for complimentary base pairing
1. Elongation
* Proteins connect the correct sequences of nucleotides into a continuous new strand of DNA
1. Termination
* Proteins release the replication complex
1. Outline the functions of DNA replication enzymes.
* Topoisomerase: Relaxes the super-coiled DNA
* DNA helicase: Unwinds the double helix at the replication fork
* Primase: Provides the starting point for DNA polymerase to begin synthesis of the new strand
* DNA polymerase: Synthesizes the new DNA strand; also proofreads and corrects some errors
* DNA ligase: Re-joins the two DNA strands into a double helix and joins Okazaki fragments of the lagging strand