

DNA Replication and Recombination

What are the 3 modes of DNA replication? Draw/describe each. Which one did Watson and crick say was the most likely scenario?

Where does replication begin? What direction does it proceed?

What is a replicon?

Describe bacterial replication.

What 4 things are required for DNA replication?

Describe chain elongation.

What is the role of DNA poly I, II, and III? Which one is the only capable of doing exonuclease activity from 5-3?

What is the role of DNA poly I, II, IV, and V?

Describe DNA poly II and its active form.

What are the 7 key issues to be resolved during DNA replication?

What does DNAa do?

Describe DNA helicase and its job.

What do SSBPs do?

What is the role of DNA gyrase and Topoisomerase?

What are Okazaki fragments?

What does DNA poly I do to primers? What does DNA ligase do after?

Describe DNAs ability to proofread and do error corrections.

How is Eukaryal DNA synthesis different than bacterial?