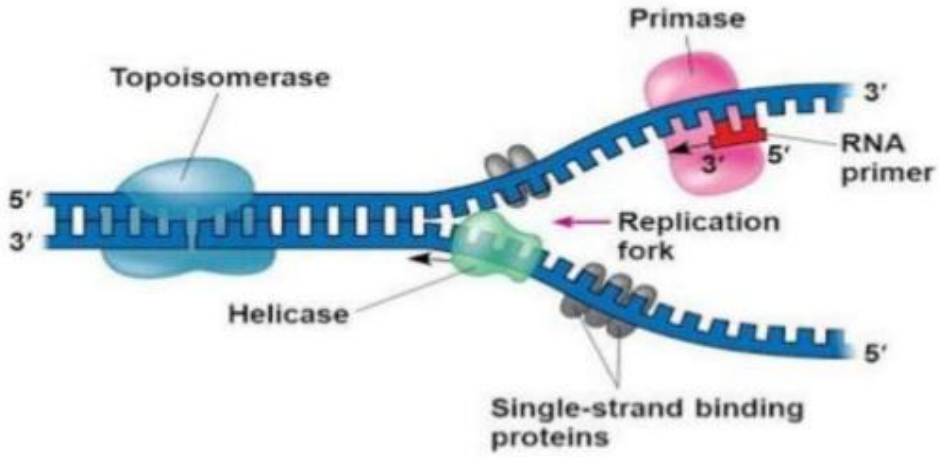
Step 2 :- Primer binding

- The leding strands is the simplest to replicated .
- once the DNA strands have been separated , a short piece of RNA called a primer binds to the 3' end of the strand .
- The primer always binds as the starting point for replication .
- Primers are generated by the enzyme DNA primase .
- DNA polymerase 3' can only nucleotides to existing strands of DNA .



Step 3 :- Elongation

- Enzymes known as DNA polymerases are responsible creating the new strands by a process called elongation .

- In eukaryotic cells polymerases alpha , delta and epsilon are the primary polymerases involved in DNA replication . Because replication proceeds in the 5' to 3' direction on the leading strand , the newly formed strands is continuous .

- The lagging strands begins replication by binding with multiple primer .

- Each primer is only several bases apart .

- DNA polymerase then adds pieces of DNA , called Okazaki fragments , to the strand between primers .

- This process of replication is discontinuous as the newly created fragments are disjointed .

- Involves the addition of new nucleotides based on complementarity of the templated strands .

- The daughter strands is elongated with the binding of more DNA nucleotides .