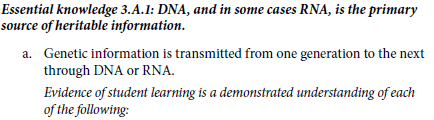
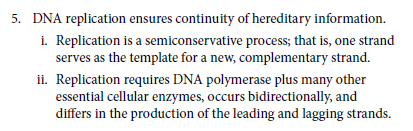
**AP Biology – DNA Replication**





**How is DNA able to replicate itself?**

Using paperclips and Post-it paper develop a model that shows the process of DNA replication.  Be able to explain the process and how the following terms/concepts relate to your model. Use two different colors to differentiate parent and daughter strand.

|  |  |
| --- | --- |
| 3’ end |  |
| 5’ end |  |
| antiparallel | |
| Base pairing rule | |
| Complementary | |
| daughter DNA strand  single-strand binding proteins | |
| DNA ligase | |
| DNA polymerases | |
| Helicases | |
| lagging strand | |
| leading strand | |
| Okazaki fragments | |
| origins of replication | |
| Parental DNA strand | |
| Primase | |
| Primer | |
| replication bubble | |
| replication fork | |
| semiconservative replication model  conservative replication model  dispersive replication model | |
| Topoisomerase | |
|  |  |
| * Be able to relate the process of DNA replication to steps in the cell cycle. | |
| * What mechanism is there to reduce the number of mistakes when copying DNA? | |
|  | |
| * What is the biological function of telomeres? | |