**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 strandsingle-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 modelconservative replication modeldispersive replication model |
| Topoisomerase |
|  |  |
| * Be able to relate the process of DNA replication to steps in the cell cycle.
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| * What mechanism is there to reduce the number of mistakes when copying DNA?
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|  |
| * What is the biological function of telomeres?
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