DNA Replication Web Quest

Use notes and watch the animations to answer these questions as you go along

<http://www.wiley.com/college/pratt/0471393878/student/animations/dna_replication/index.html>

**Introduction –Section 2**

1. What is DNA replication?

2. Why do we need to replicate our DNA?

3. How does DNA replicate? (Circle one correct answer below)

A.Conservatively

B. Semi-conservatively

C. Dispersively

D. None of the above

4. In your own words, what does semi-conservative mean?

**This animation covers a lot of proteins, only pay attention to the three proteins from notes that are listed in the table below.**

5. Watch **section 3** in its entirety. Then **describe** the purpose and **draw** a picture of the enzyme performing its job. If needed, go back and watch it again and this time take notes.

|  |  |  |
| --- | --- | --- |
| **Enzyme** | **Job Description (Purpose)** | **Drawing** |
| **A. Polymerase** |  |  |
| **B. Helicase** |  |  |
| **C. Ligase** |  |  |

**Section 4**

6. Summarize the first step of DNA replication.

7. How does the DNA get unwound and stay unwound?

8. What is the replication fork?

9. Draw and label a replication fork in the space below.

**Section 5**

10 . Contrast the replication process that occurs in the leading and lagging strands of DNA.

**Summary**

11. If you start with one double stranded piece of DNA, how many double stranded pieces of DNA exist at the end of DNA replication?

12. **Model and Describe** the two pieces of DNA created at the end of DNA replication.