

DNA Replication Worksheet

DNA replication occurs in a _____ manner. This is when two new DNA molecules are created by reusing one of the _____ strands of DNA and creating a _____ strand of DNA.

1. The enzyme, _____ breaks the _____ between the base pairs.
2. _____ attach to the DNA strands to prevent them from _____ or joining together.

Define Gyrase:

3. _____ is added to the strands by _____.
4. It occurs in the _____ direction.
5. _____ adds complementary nucleotides.

The _____ is built towards the replication fork.

The _____ is built away from the replication fork in short

_____.

This process is _____.

6. _____ are joined by _____. It creates a _____ to form a continuous strand of DNA.
7. _____ removes _____ and replaces them with nucleotides.
8. _____ also checks for errors, and replaces bad nucleotides.
9. DNA does not replicate as a whole, but in small fragments called _____. By doing this, the process is greatly accelerated.

List the four reasons for DNA replication.

- 1.
- 2.
- 3.
- 4.