Name _____

Unraveling the Mystery of DNA Replication

Short Answer Key

1. DNA polymerase adds new nucleotides to the growing DNA strands during replication.
2. The complementary base pairing rule states that adenine (A) pairs with thymine (T), and cytosine (C) pairs with guanine (G). It applies to DNA replication by ensuring that each new DNA strand is complementary to the original strand.
3. Accuracy is important in DNA replication to prevent errors or mutations in the DNA sequence, which could lead to genetic disorders or diseases.
4. Semi-conservative replication means that each new DNA molecule contains one strand from the original molecule and one newly synthesized strand.
5. Understanding DNA replication contributes to medical research by providing insights into the mechanisms of genetic diseases and potential targets for treatment.

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