

Concept 11.3

DNA replication is the molecular mechanism of inheritance.

DNA replication - enzymes link the nucleotides together to form two new DNA strands, called daughter strands.

Template mechanism - like a photographic negative the cell uses a “negative” of the DNA to make more DNA.

Pairing rules - complementary bases: A pairs with T, and G pairs with C.

Replication of the Double Helix:

DNA polymerases - make the covalent bonds between the nucleotides of the new DNA strand.

- DNA starts replication at sites called **origins of replication**.
- The copying proceeds outward in both directions, creating **replication bubbles**.
- DNA replication occurs before a cell divides.