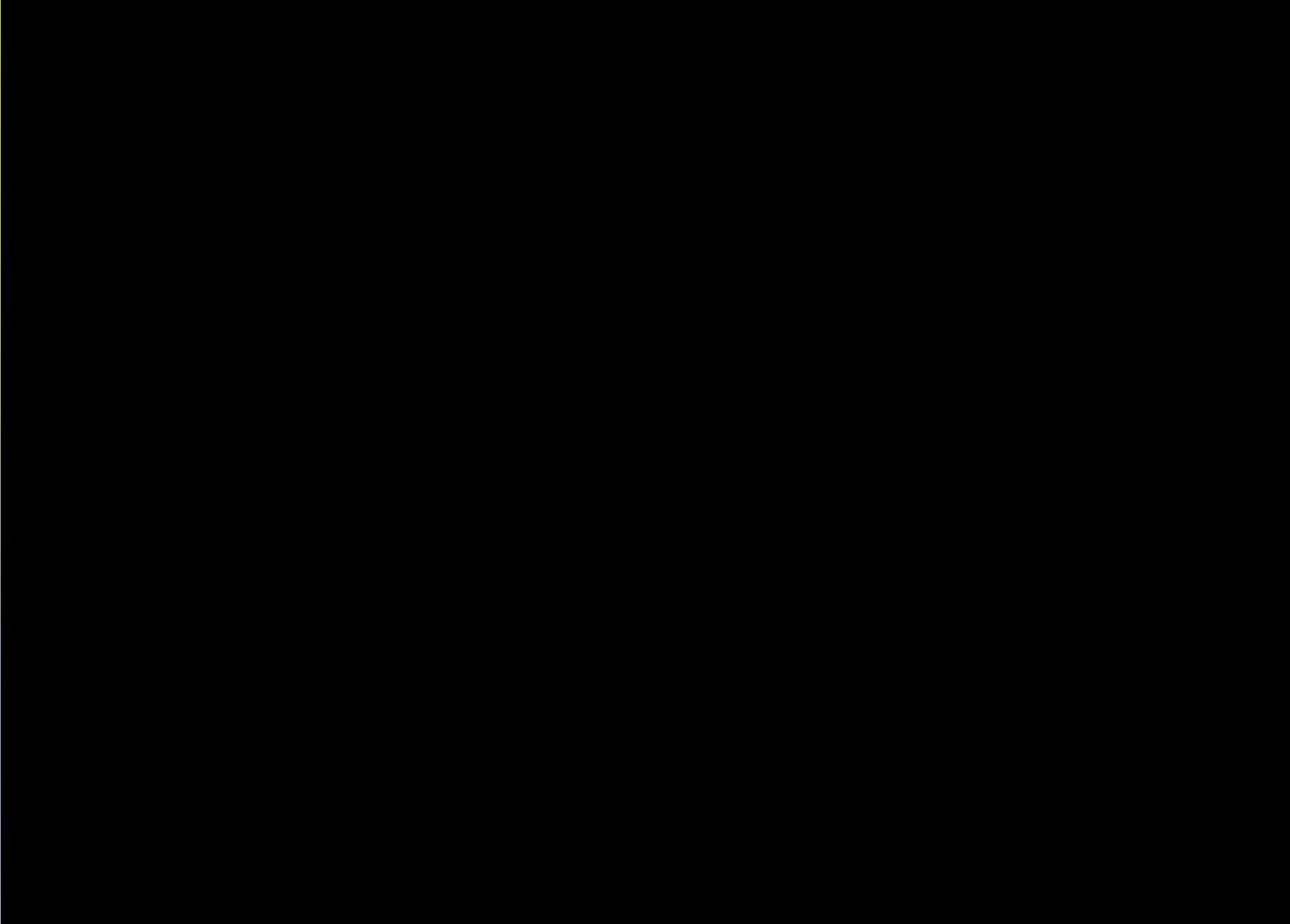
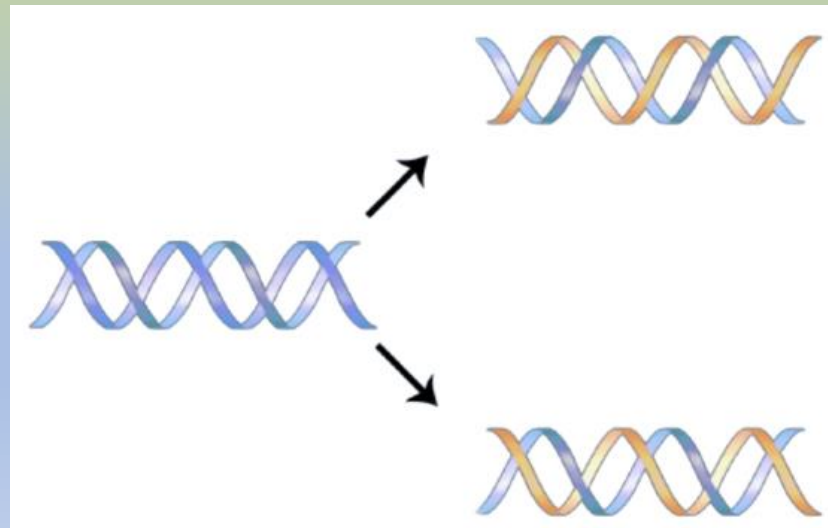


# Crashcourse: DNA and Replication



# DNA Replication

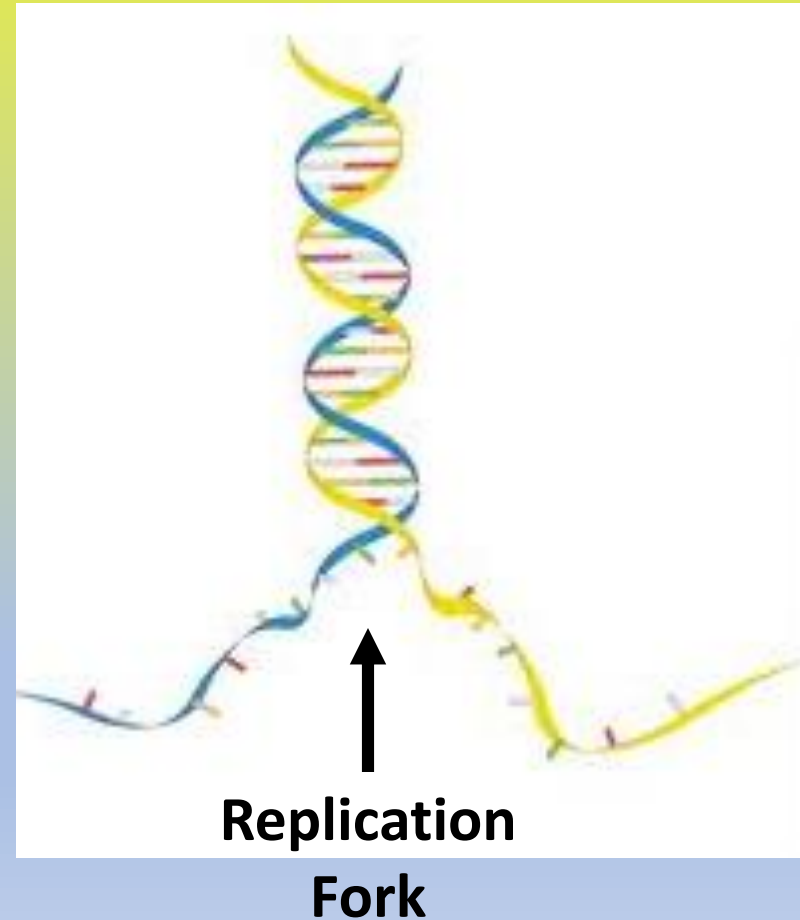
- DNA is copied in a process called “replication”.
- DNA must undergo replication to ensure that during cell division each new cell gets a full copy of identical DNA



# DNA Replication

## Steps of Replication:

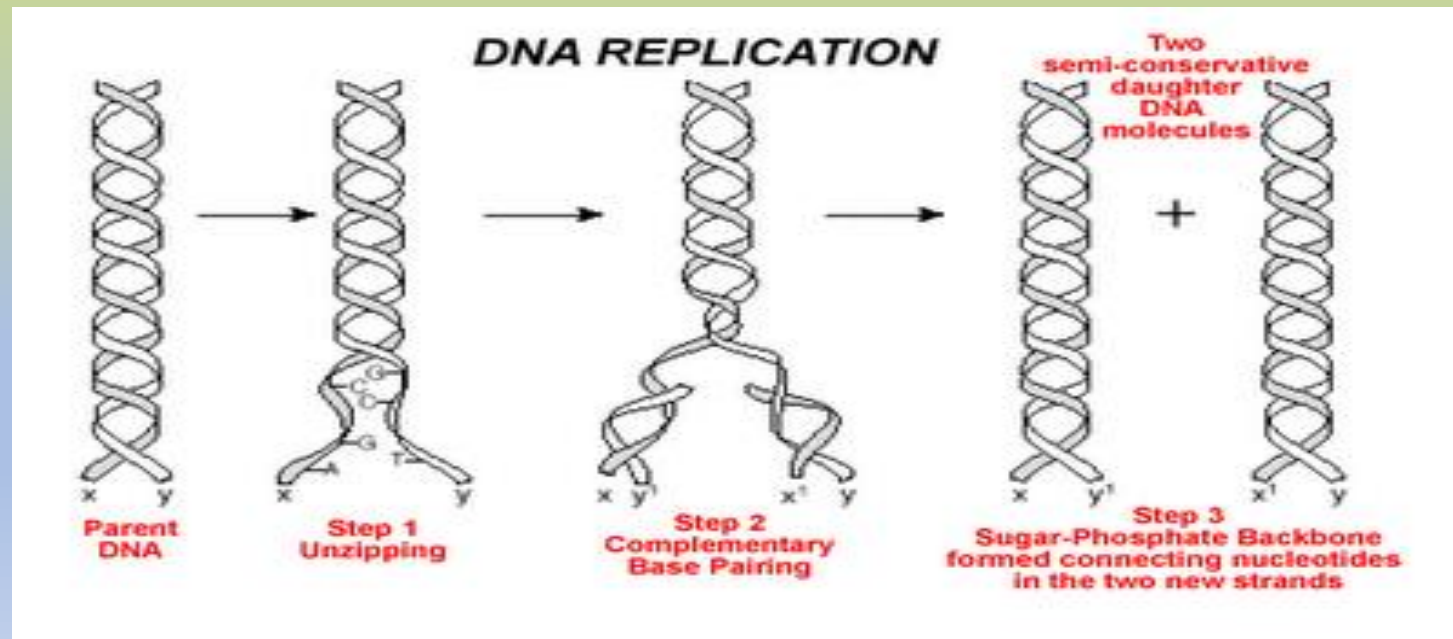
1. DNA “unzips” down its weak H-bonds using an enzyme called *helicase*
2. The two half strands then act as a template for the production of two new strands

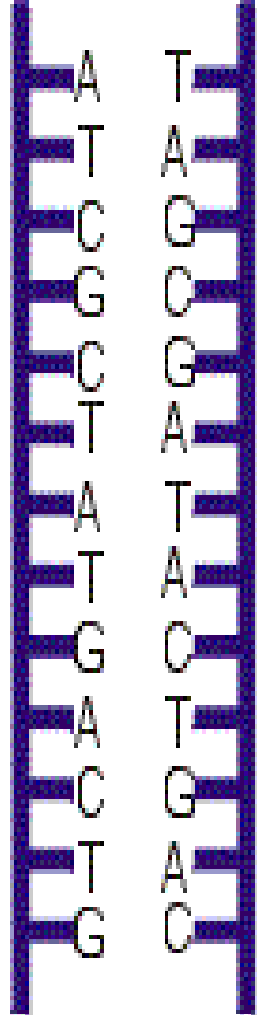


3. Another enzyme, ([\*DNA Polymerase\*](#)) uses base pairing rules match new base pairs onto each strand.

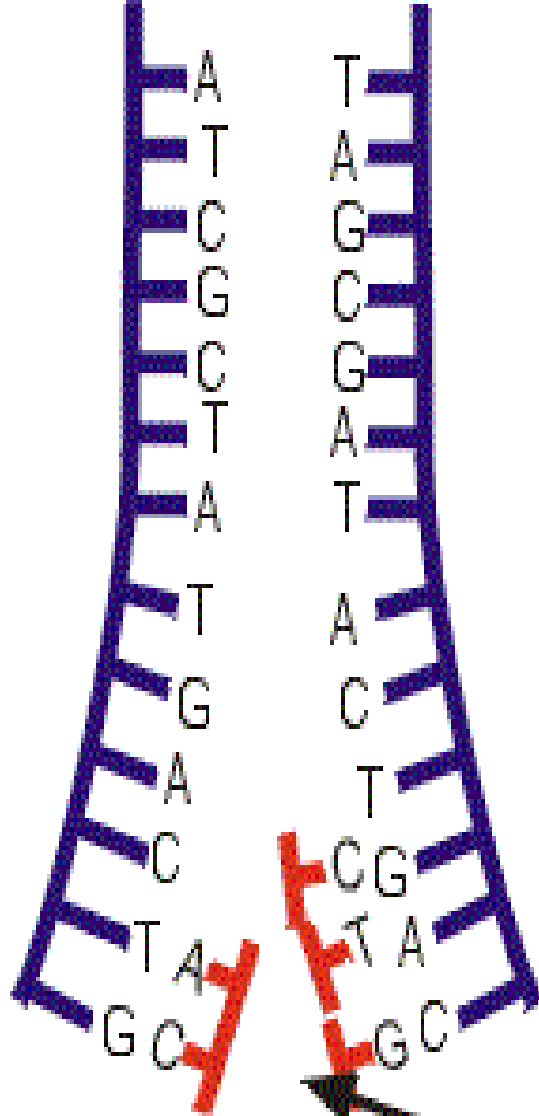
**A→T      C→G**

- Now, each new DNA molecule has one old strand of nucleotides and one new strand.
- You end up with two identical copies of the original DNA

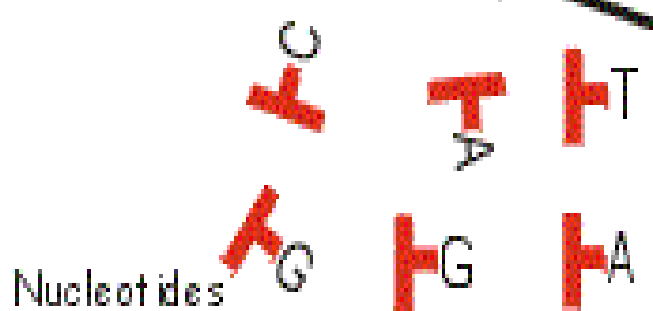




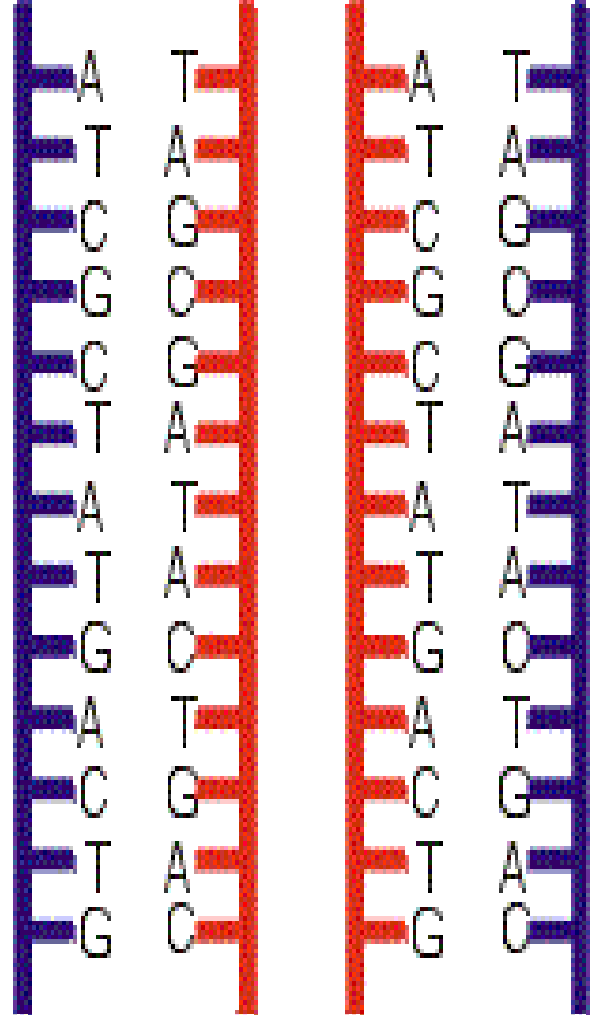
Two strands of DNA



Strands separate



Nucleotides



Two exact copies

If this is a template strand, what complementary strand would it make?

-A C T G G-

-T G A C C-