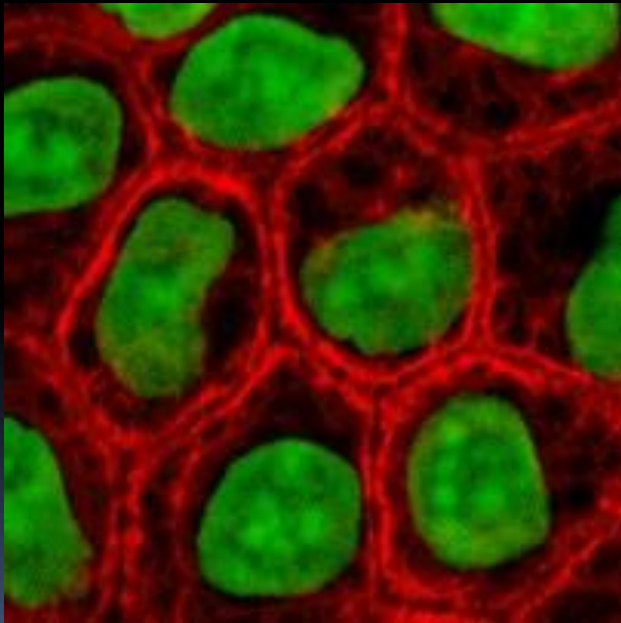


# DNA



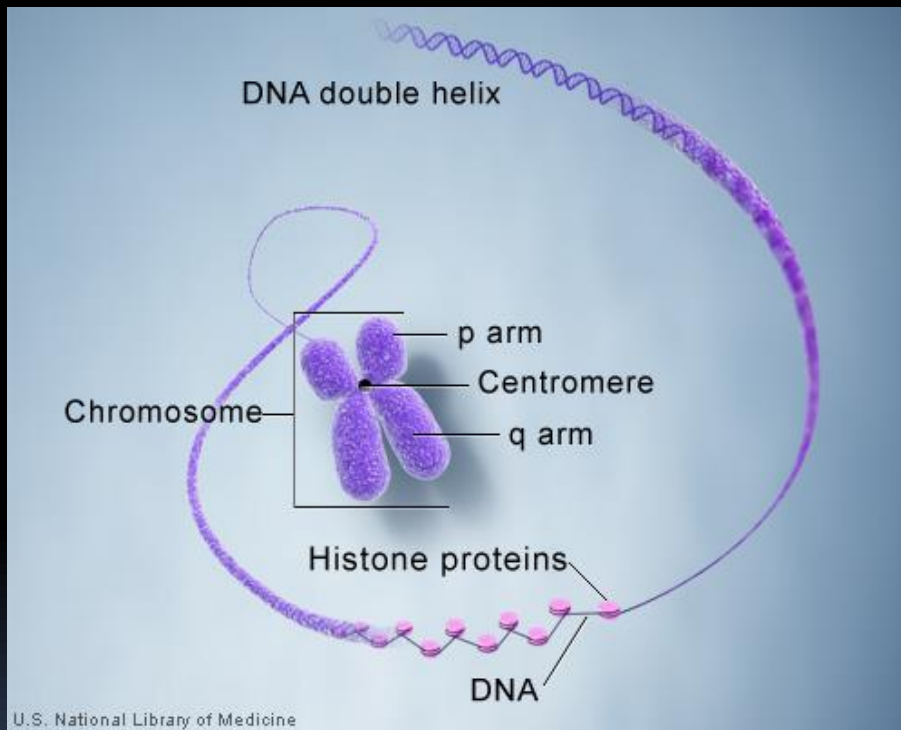
# Nucleus

- Contains cell's genetic info (DNA) – controls cell functions



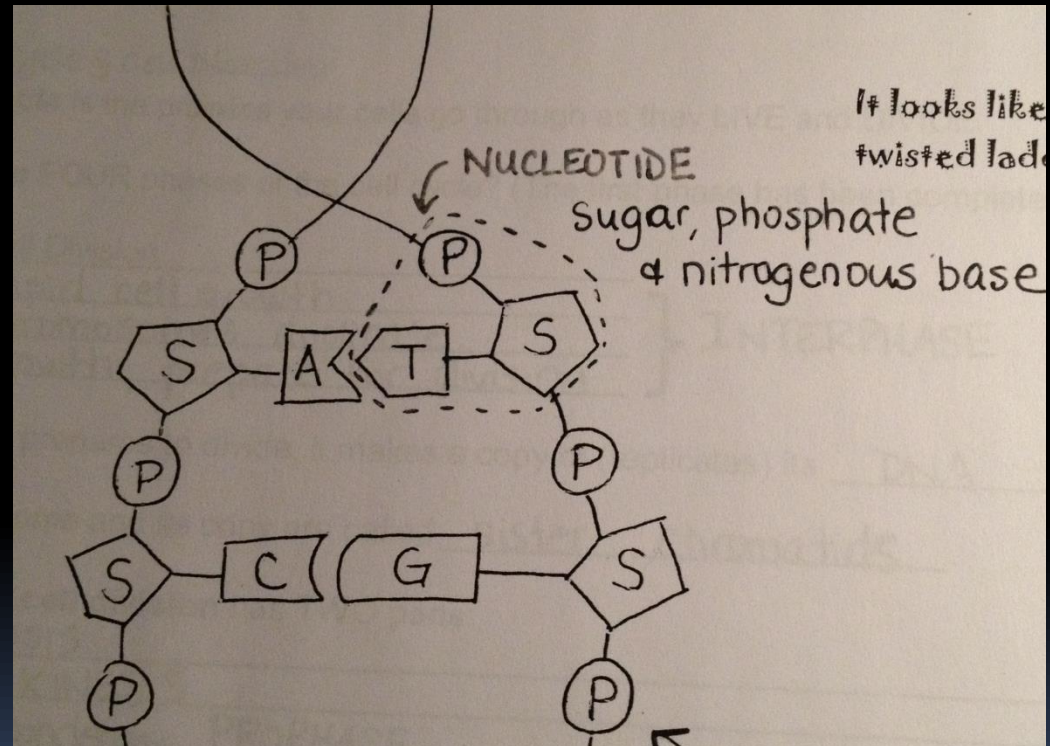
# DNA Structure

- **DOUBLE HELIX:**  
Like a twisted ladder

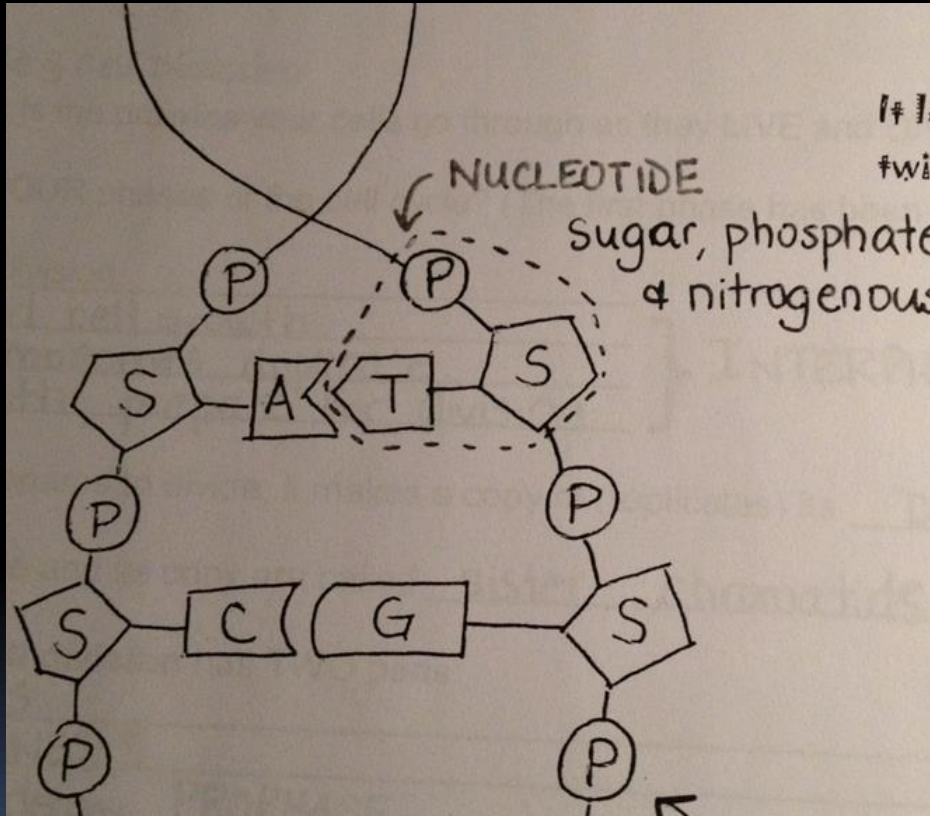


# DNA

- DNA molecule is made up of two NUCLEOTIDES
- **Nucleotides** are made up of a sugar, phosphate & nitrogenous base



# DNA



- The “sides” of the ladder are the sugar and the phosphate molecules
- The “rungs” of the ladder are made up of nitrogenous bases

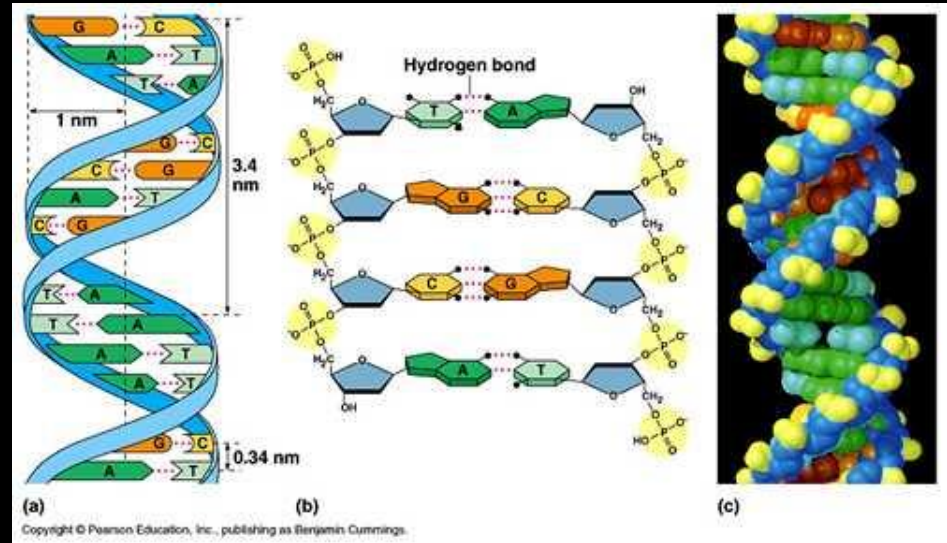
# Nitrogenous Bases

- There are **FOUR** different bases:

- Adenine (A)
- Guanine (G)
- Cytosine (C)
- Thymine (T)

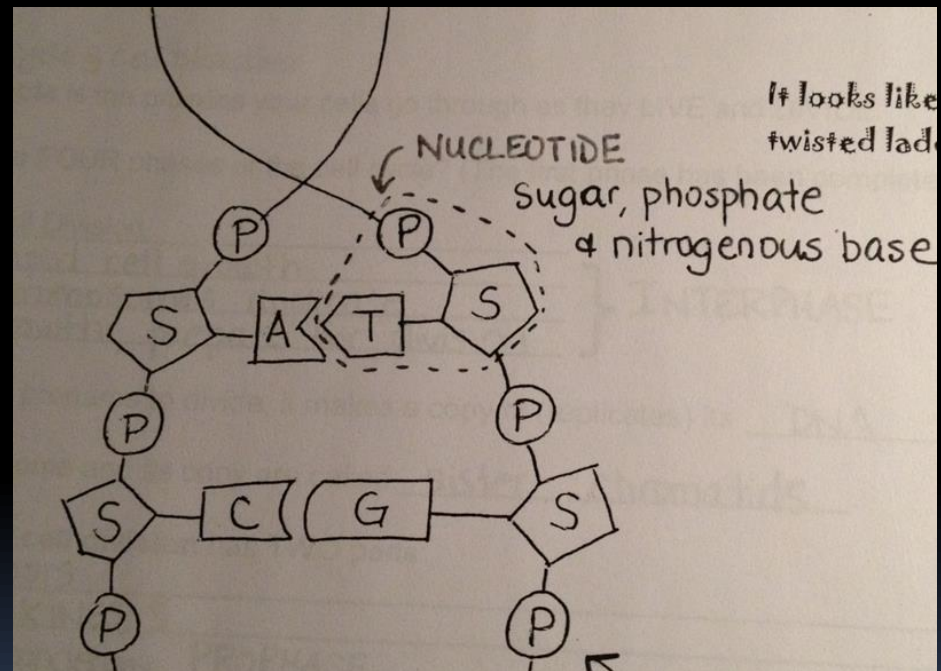
Purines (two rings)

Pyrimidines (1 ring)

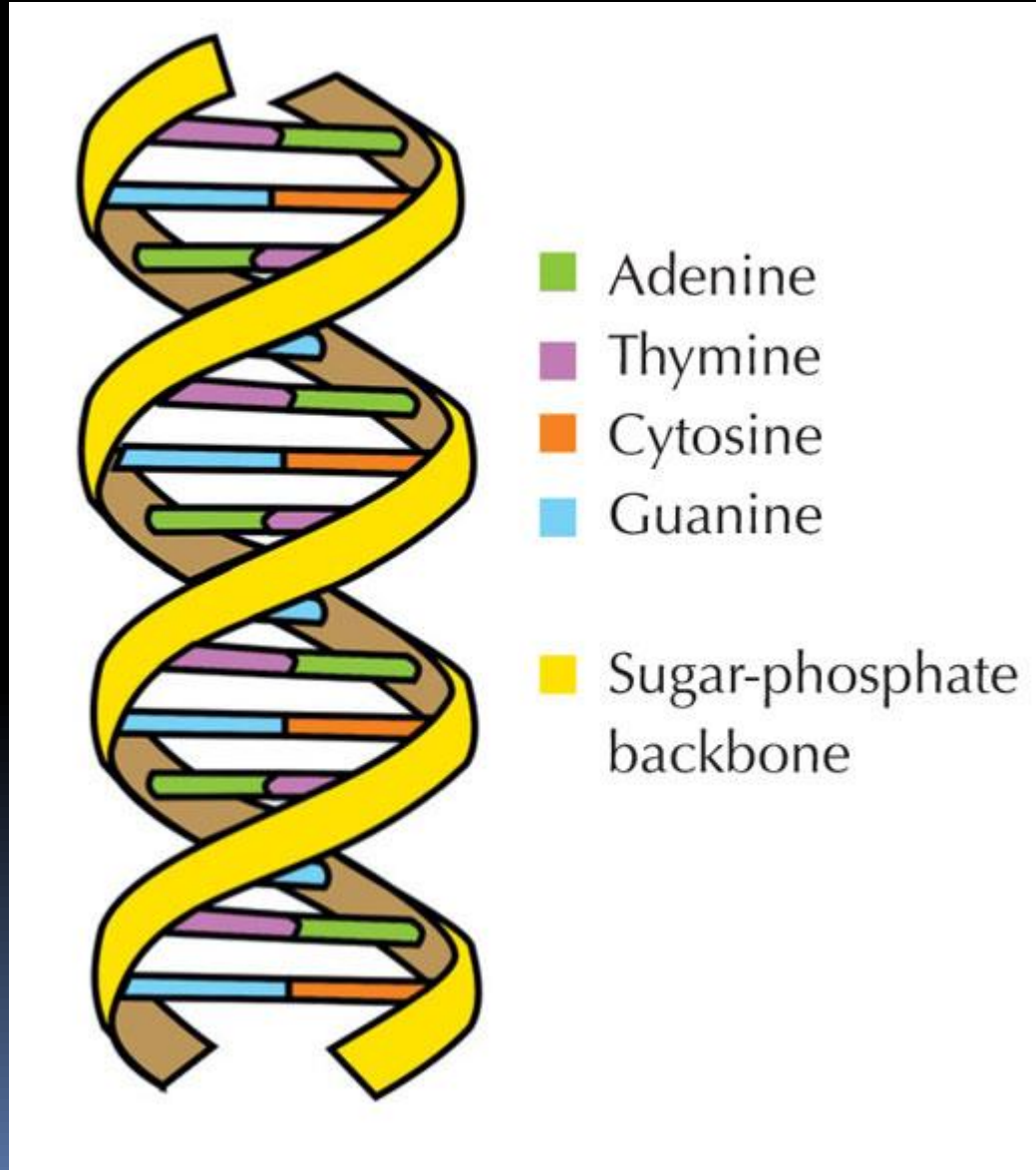


# THE BASES - ALWAYS pair together like this

- Adenine → Thymine
- Cytosine → Guanine
- *THIS IS CALLED COMPLEMENTARY BASE PAIRING*



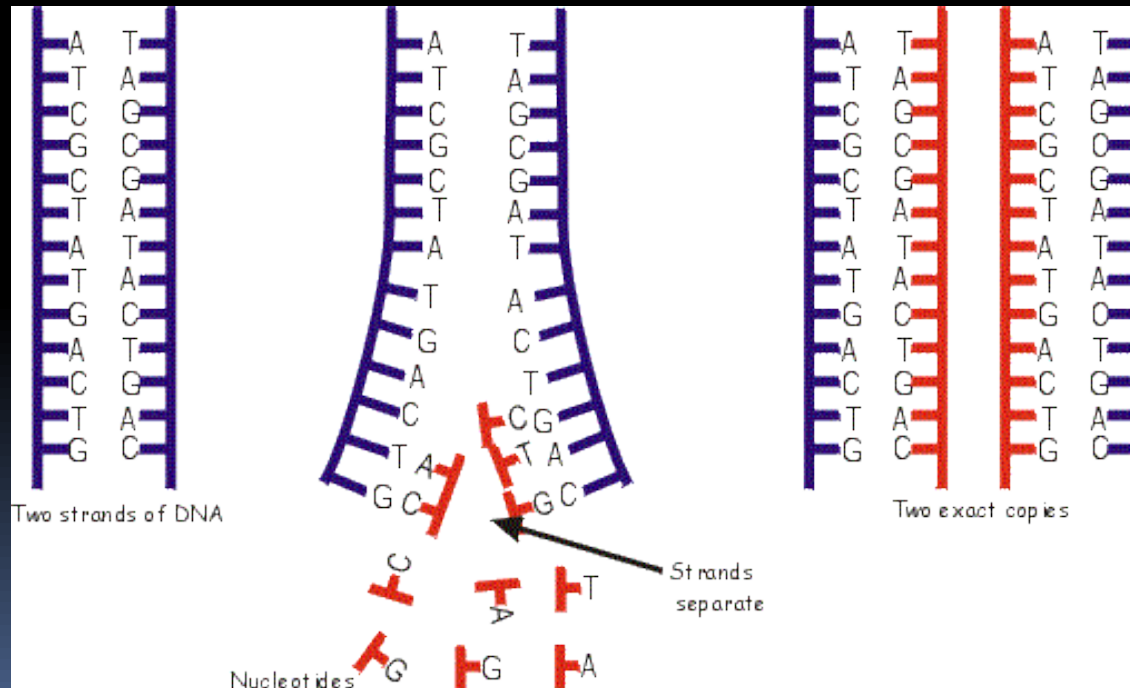
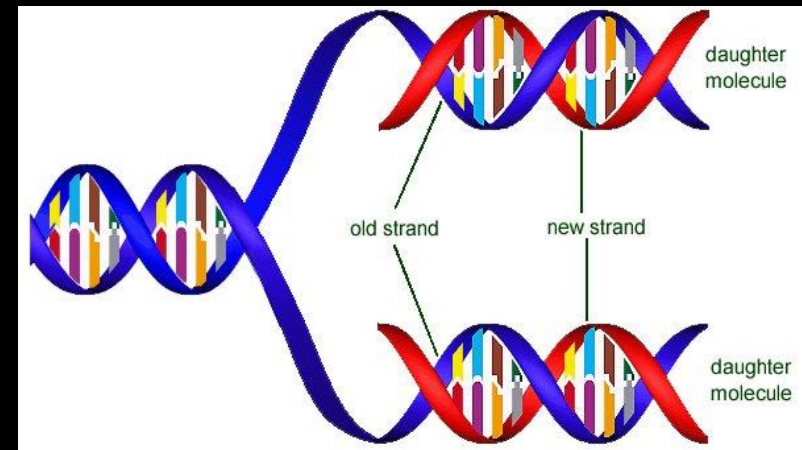
# Colour your DNA molecule

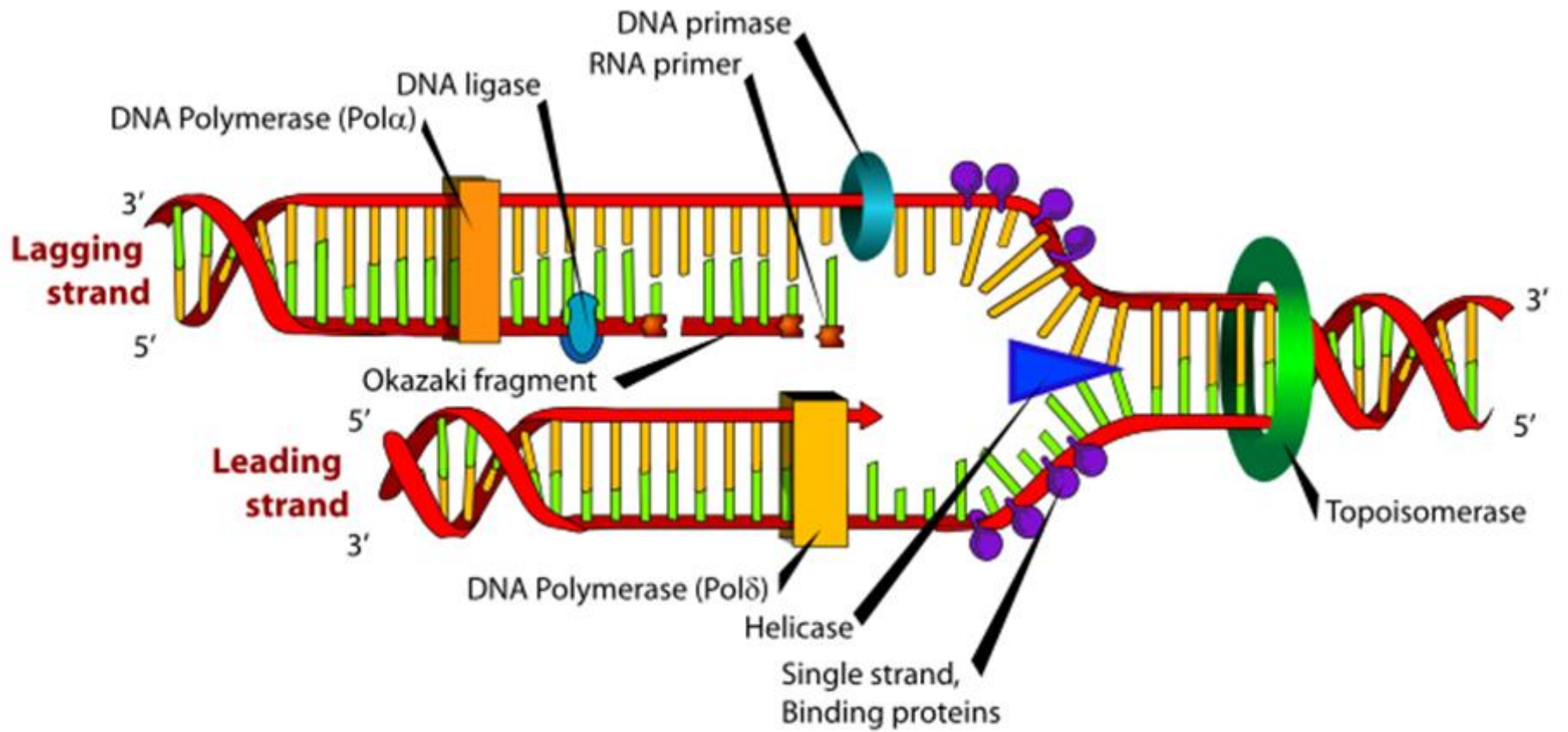




# DNA Replication

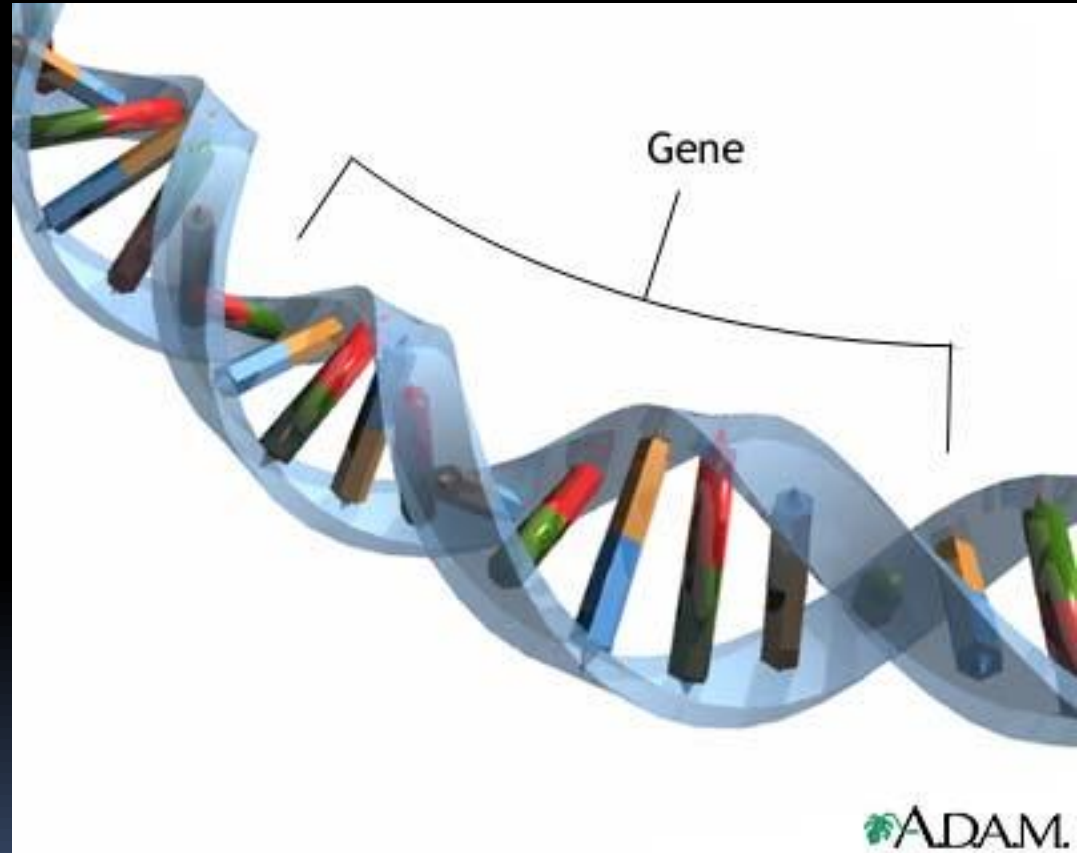
- DNA molecule opens up
  - Enzyme: DNA Helicase
- New nucleotides join opened sides
  - Enzyme: DNA Polymerase
- Backbone of sugar – phosphate is sealed
  - Enzyme : DNA Ligase
- New DNA
  - One parent strand
  - One daughter strand





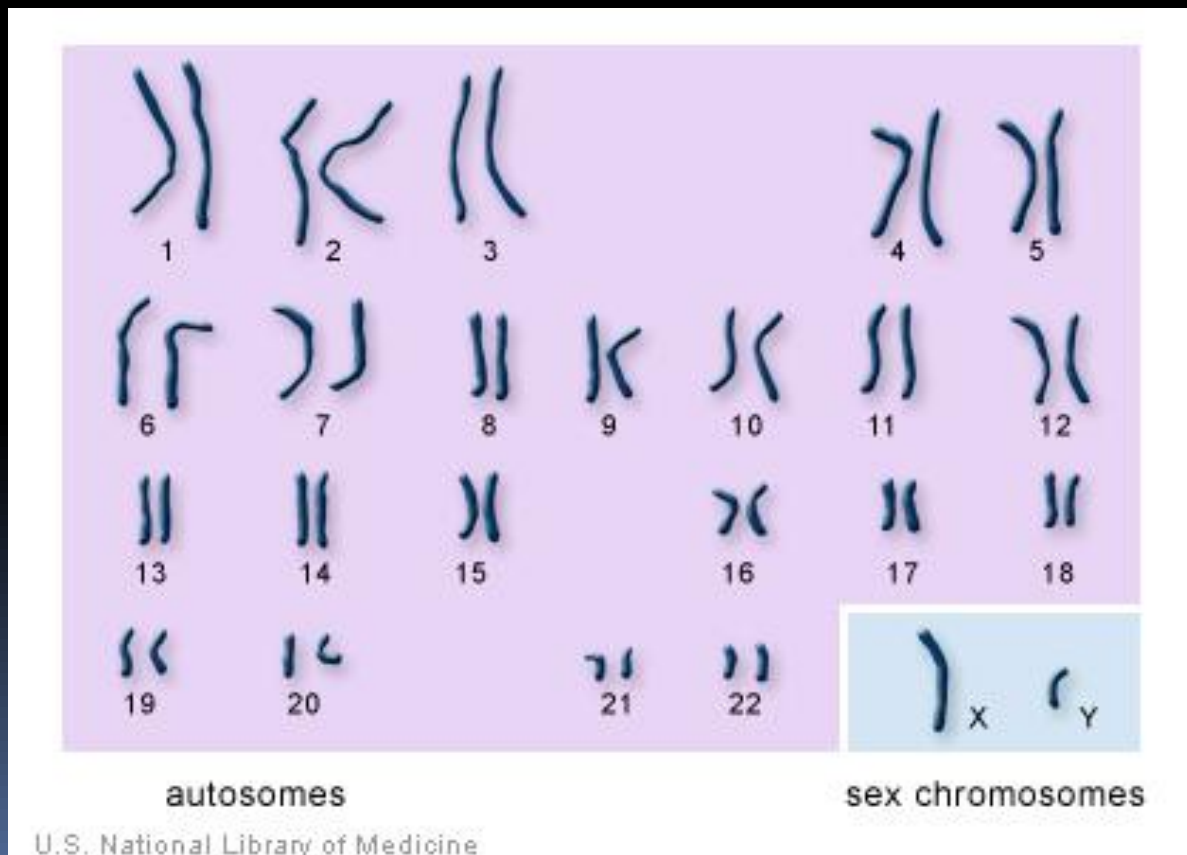
# Gene

- Short section of DNA that “codes” for a specific protein (instructions for making it)



# Genome

- All of an organisms genes



# DNA worksheet