

## Chapter 11: DNA: The Molecule of Heredity

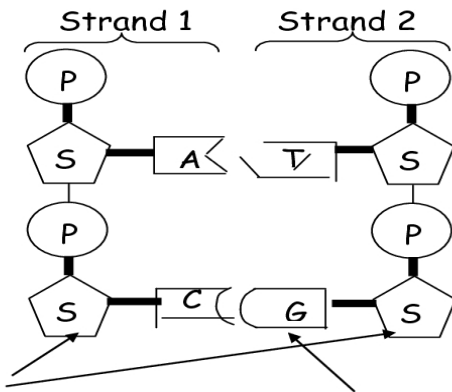
### What is DNA?

- Deoxyribonucleic acid
- Is a type of nucleic acid
- What chromosomes (and genes) are made of
- Made up of repeating nucleotide subunits
- 1 nucleotide looks like:



- 4 types:
- Adenine (A) - Purine Ring
  - Guanine (G) - Purine Ring
  - Cytosine (C) - Pyrimidine
  - Thymine (T) - Pyrimidine

- 2 strands so bases can pair up



#### Chargaff's Rule

- In DNA, A = T
- C = G

#### DNA is complementary

- **Complementary:** bases on one strand match up with the bases on the other strand (A-T and G-C)

▪ **Example:** Strand 1- ATG GGC  
Strand 2- TAC CCG

Codon: Group of 3 bases

Phosphates + sugars  
on the outside

Bases on the inside (Bases fit  
like puzzle pieces)