

DNA and RNA Base Pairing Rules

DNA to DNA

- *Possible Bases:* Adenine, Thymine, Cytosine, Guanine
- $G \leftrightarrow C, A \leftrightarrow T$
- A and G are purines (double-ring), C and T are pyrimidines (single-ring)

DNA to mRNA

- *Possible Bases:* Adenine, Thymine, Cytosine, Guanine, Uracil (RNA only)
- $G \leftrightarrow C, A \rightarrow U, T \rightarrow A$
- A and G are purines (double-ring), C, T, and U are pyrimidines (single-ring)

mRNA to tRNA

- *Possible Bases:* Adenine, Cytosine, Guanine, Uracil
- $G \leftrightarrow C, A \leftrightarrow U$
- A and G are purines (double-ring), C, T, and U are pyrimidines (single-ring)