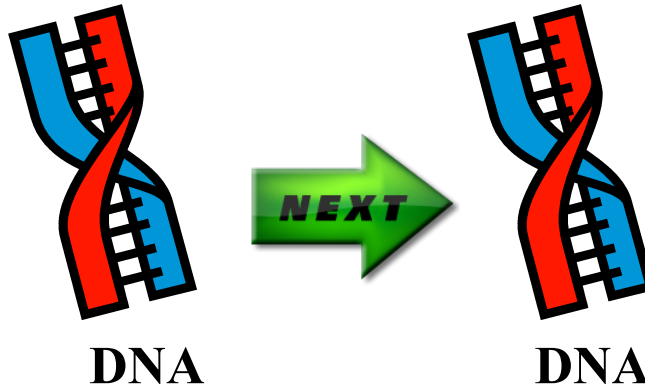


The Two Processes You Need to Know

Process 1: DNA Replication

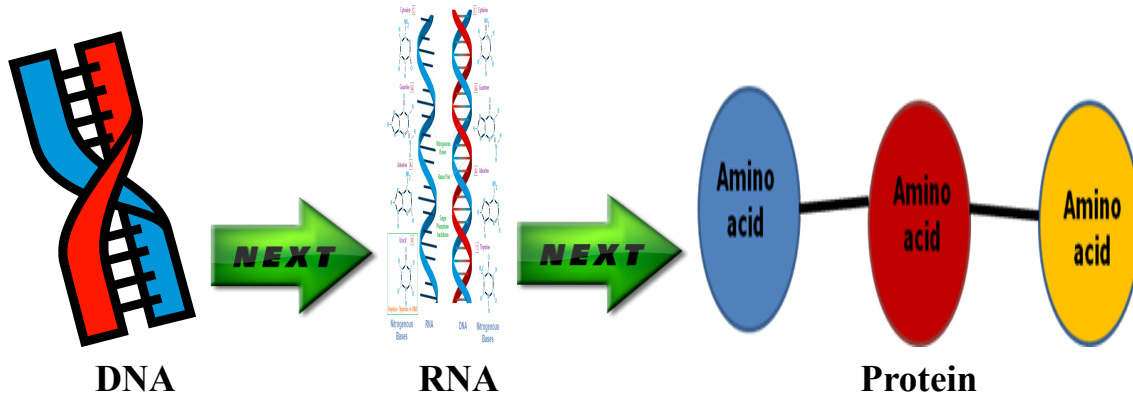


In DNA replication the bases of importance are A,T,G,C.

Practice: Replicate the following single DNA strand.

ATTGACGTACGCTAAATCGTACGATACGCCTATCGCATAGCC

Process 2: Transcription & Translation

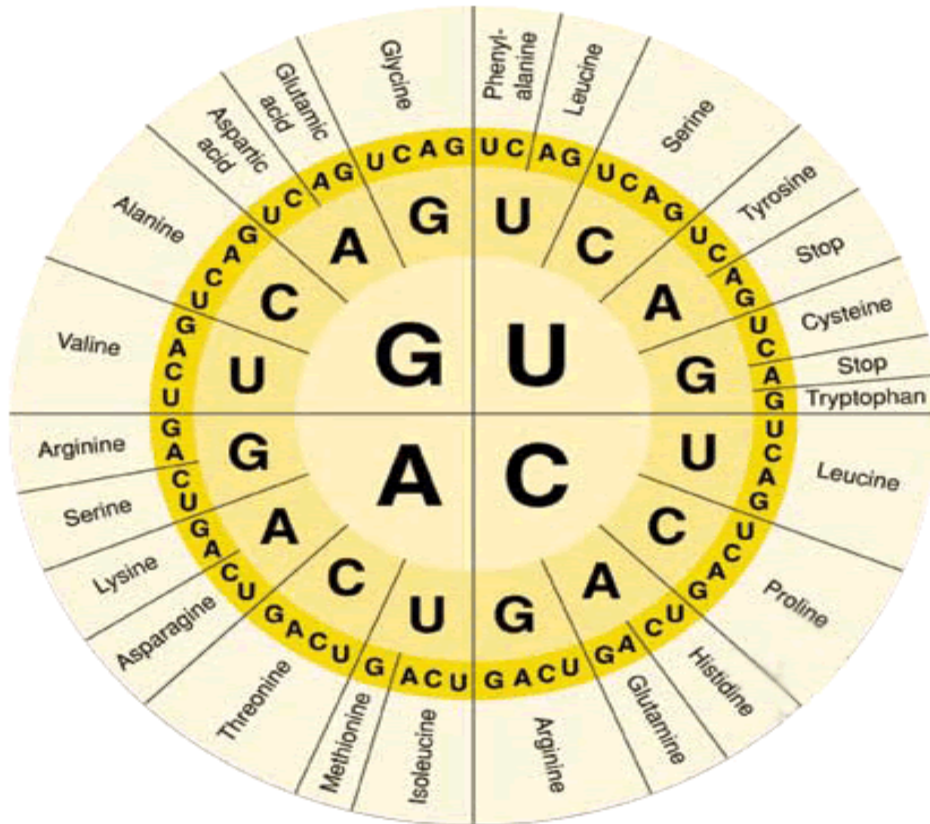


In DNA transcription the bases of importance are A,U,G,C.

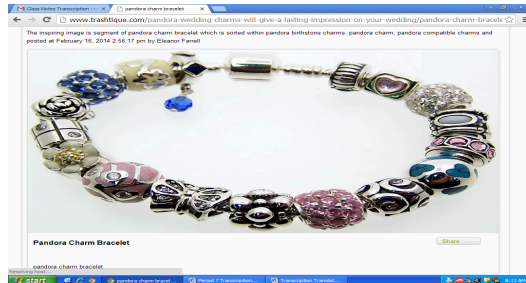
Practice: Transcribe the following single DNA strand into mRNA.

GTCGGATCGGATCTATCAGCTAGGATCATGTGACTAGCTAGT

Translation



In translation mRNA is being used to create an amino acid chain. Amino acid chains are also known as proteins. Think of amino acid chains as beads on a string or as charms on a bracelet. You need three bases to determine which amino acid (charm) to add to your chain.



Practice: Below are two mRNA strands. Translate the mRNA strands below into an amino acid chain. Use the chart above.

CGAUCGAUCGAGGCUAUUAGCUACGAUCGAUCGAUGA

UGCUAGCUAUGCGCUGAUCGUAAUGUGAAGCUACGGAUCC