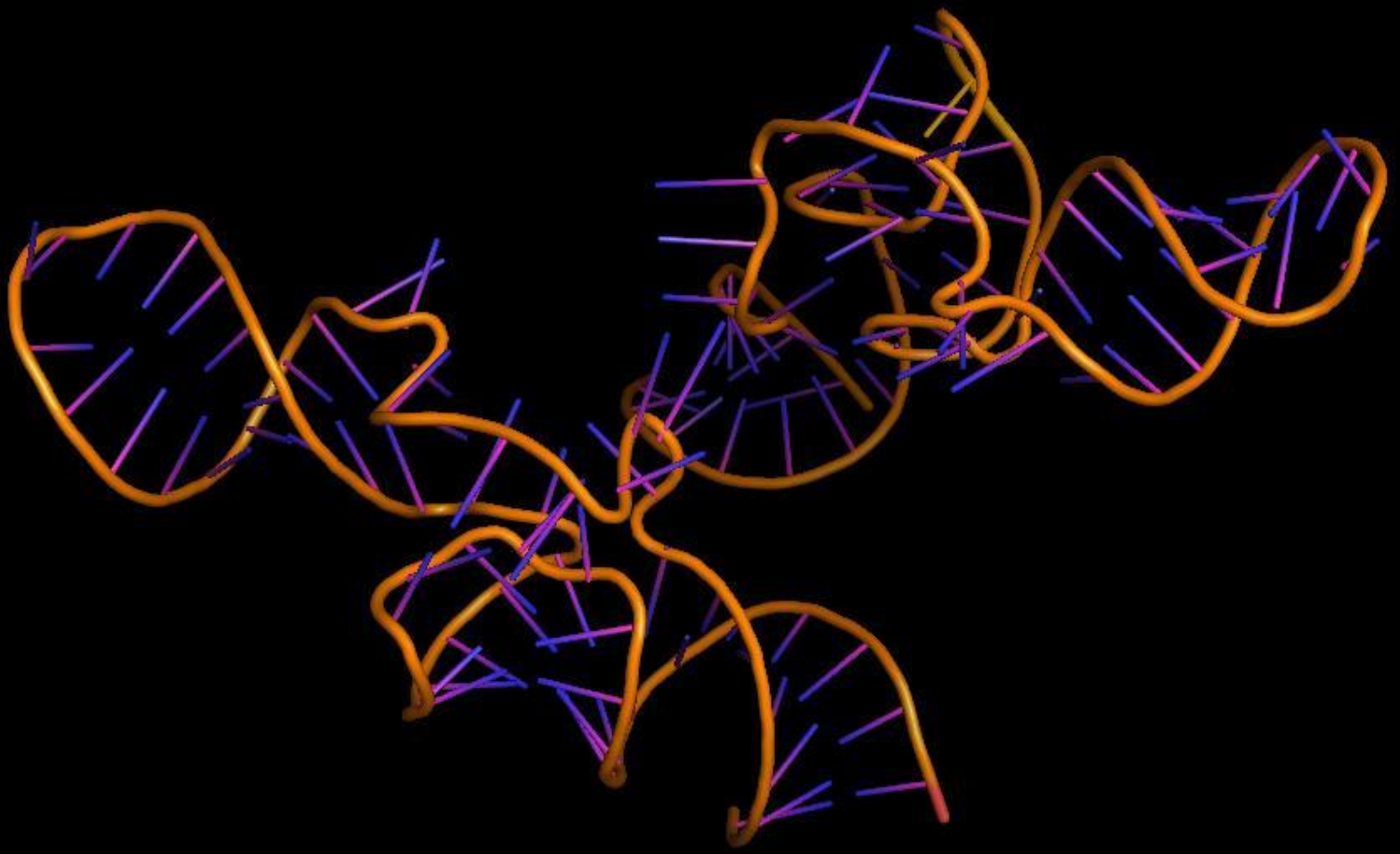
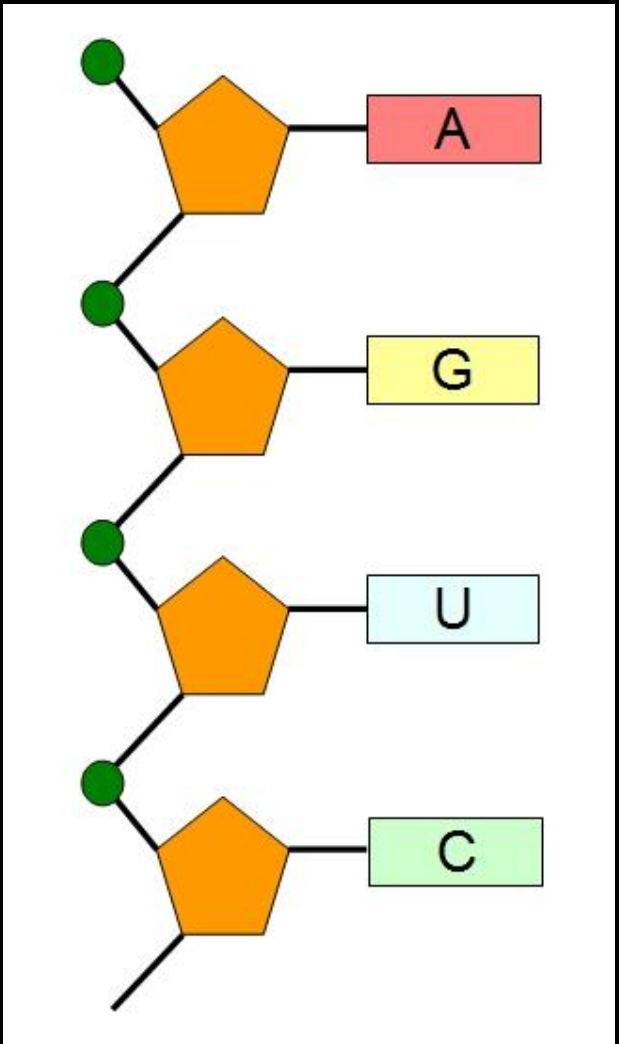
Types of RNA



Learning Objectives

- Name the three types of RNA and describe the purpose of each

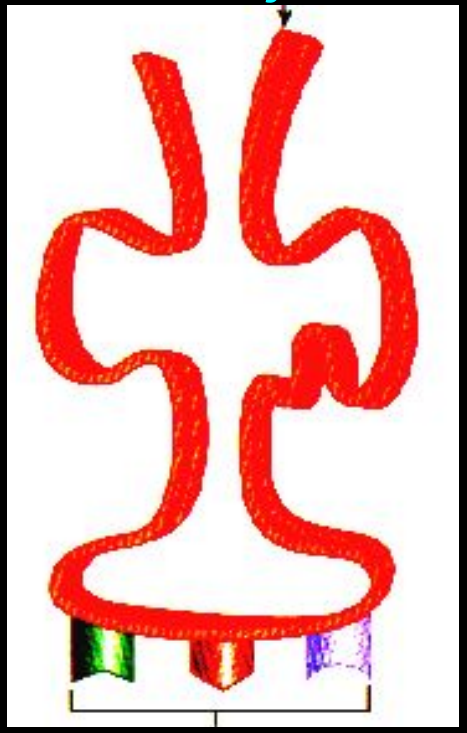
RiboNucleic Acid - RNA



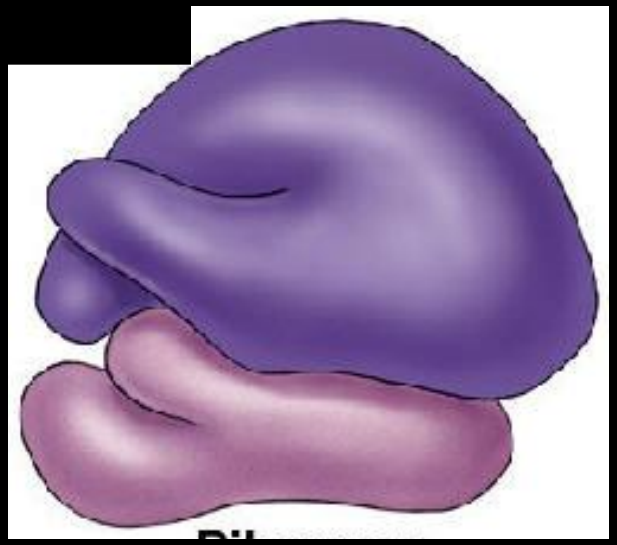
- RNA is a chain of nucleotides containing a nitrogenous base, ribose sugar and a phosphate.
- RNA has uracil instead of thymine

Various RNAs

Don't write, just listen



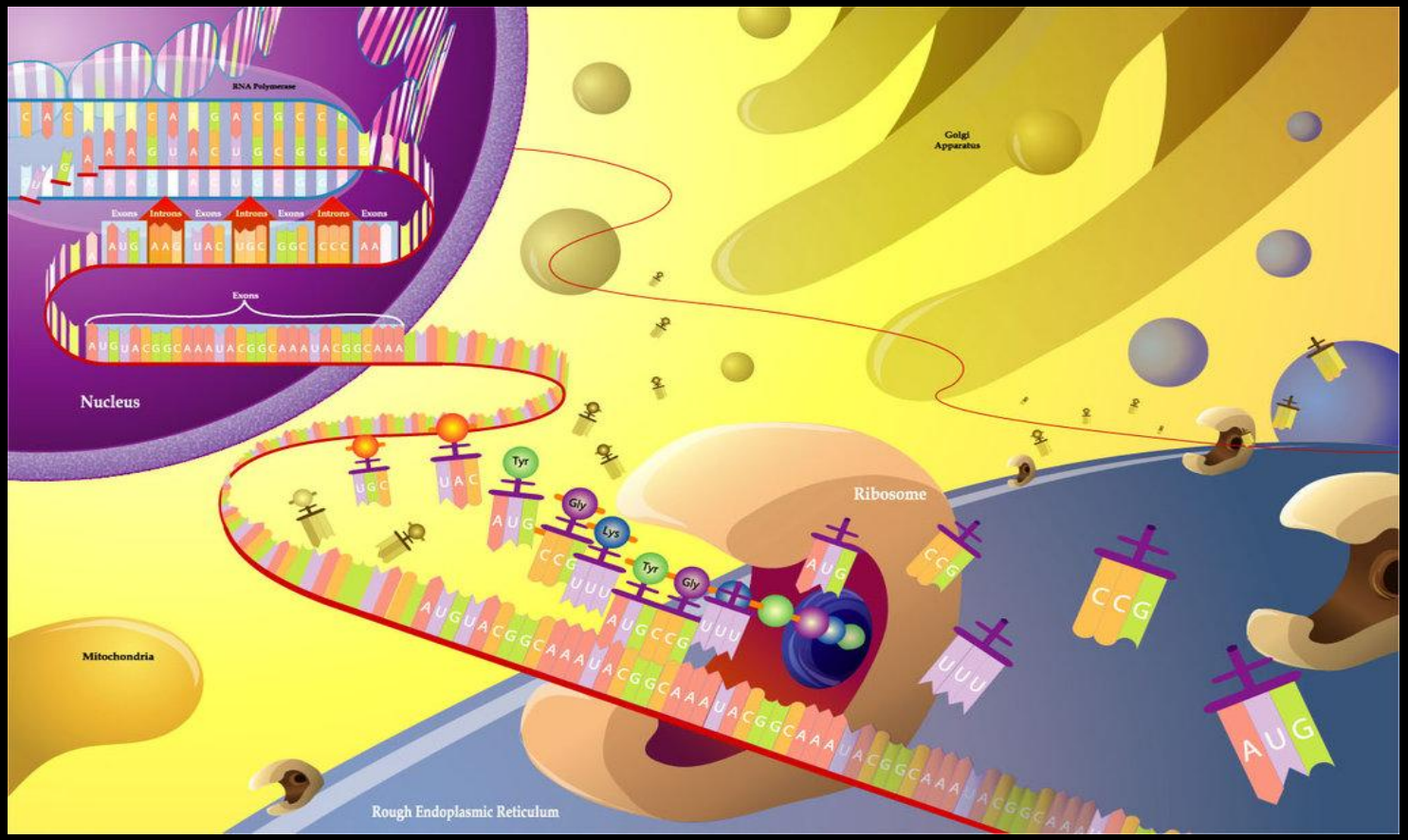
tRNA



rRNA

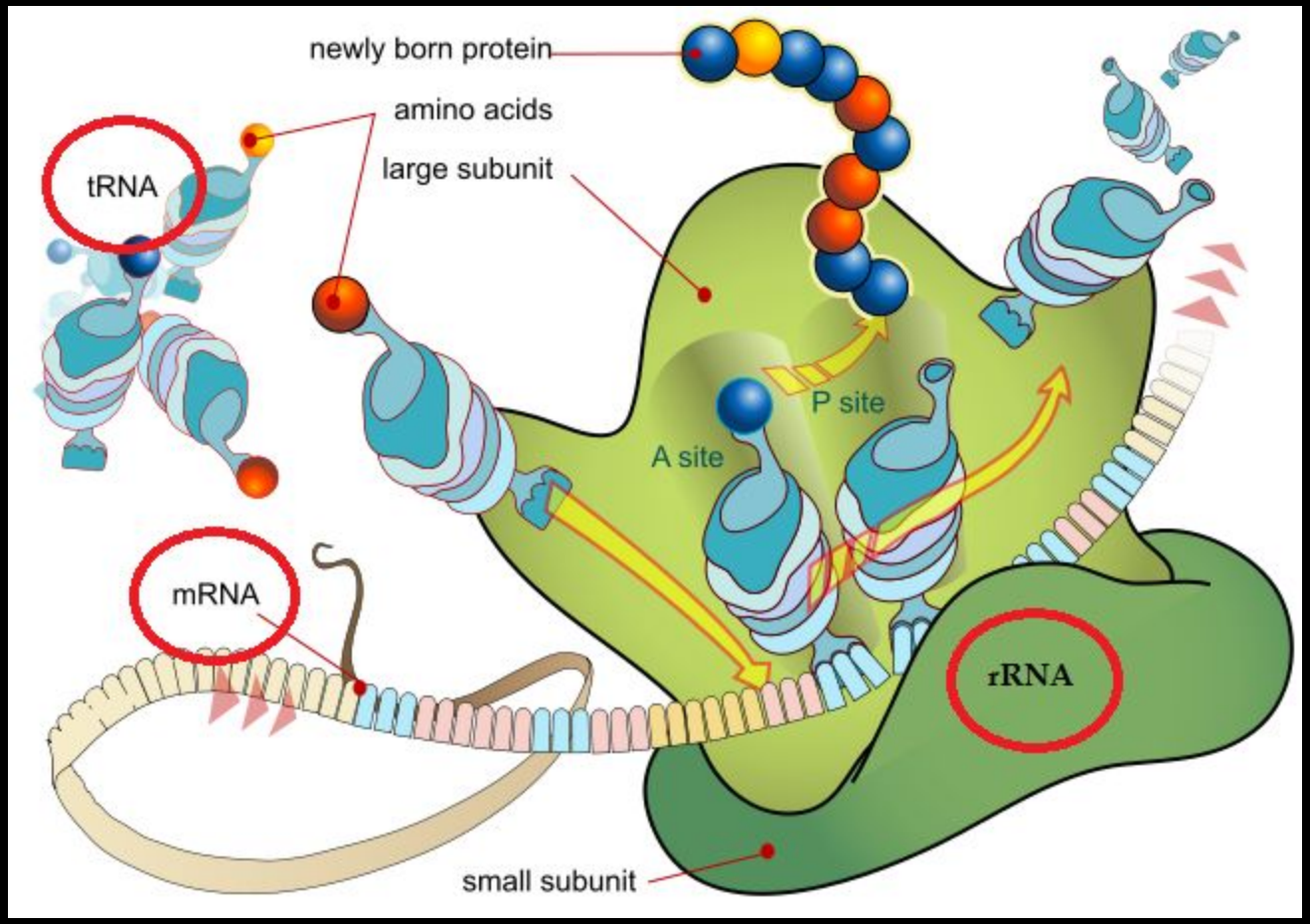
RNA comes in a variety of different shapes and types.

Function of RNA



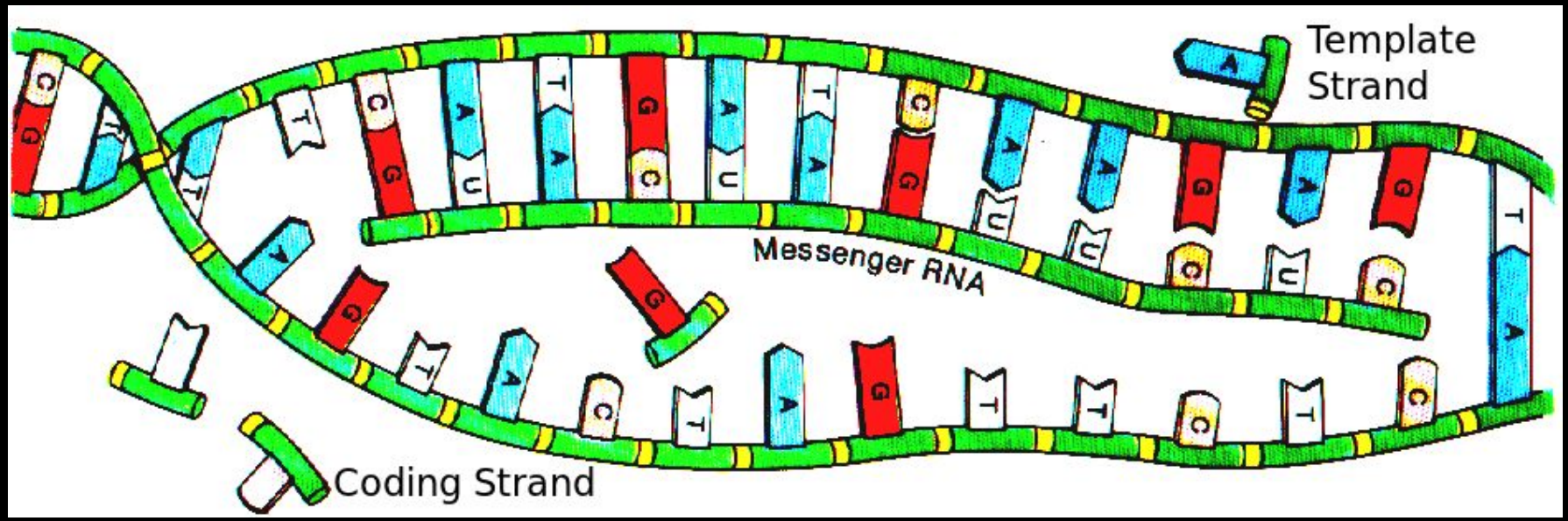
Convert the information stored in DNA to make proteins.

Protein Synthesis Requires Three Types of RNA



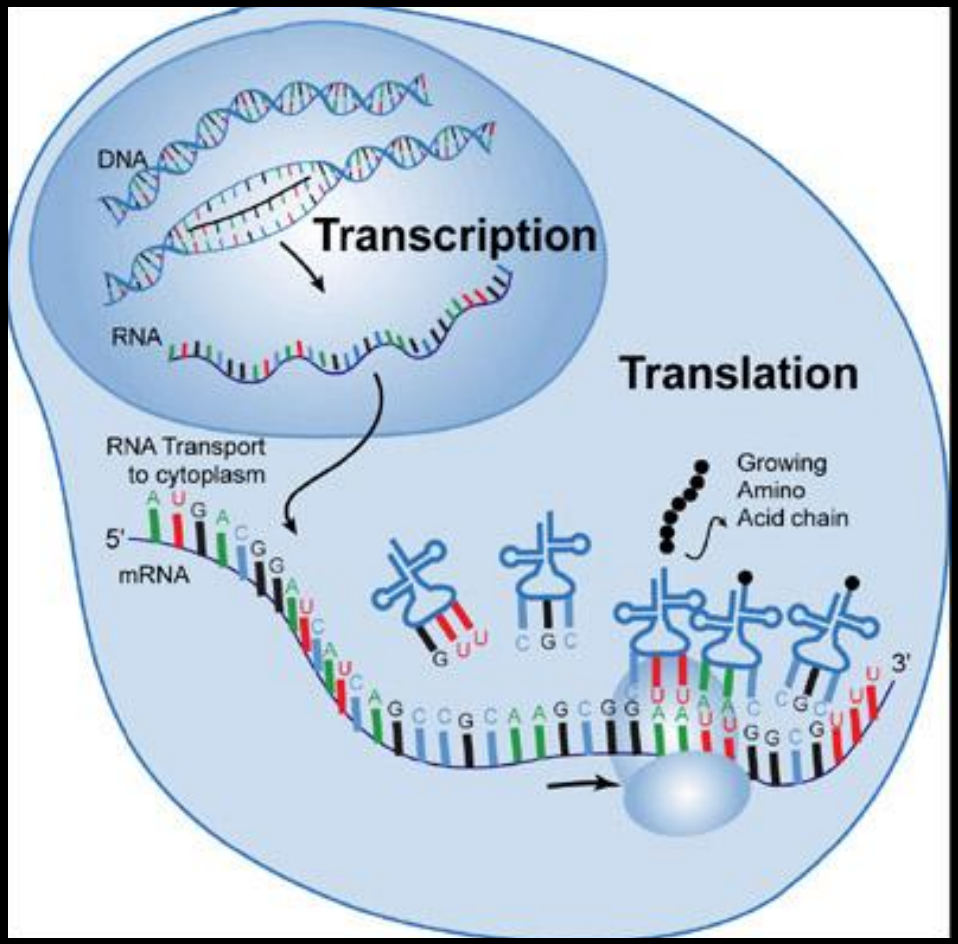
1. mRNA - Messenger RNA
2. tRNA - Transfer RNA
3. rRNA - Ribosomal RNA

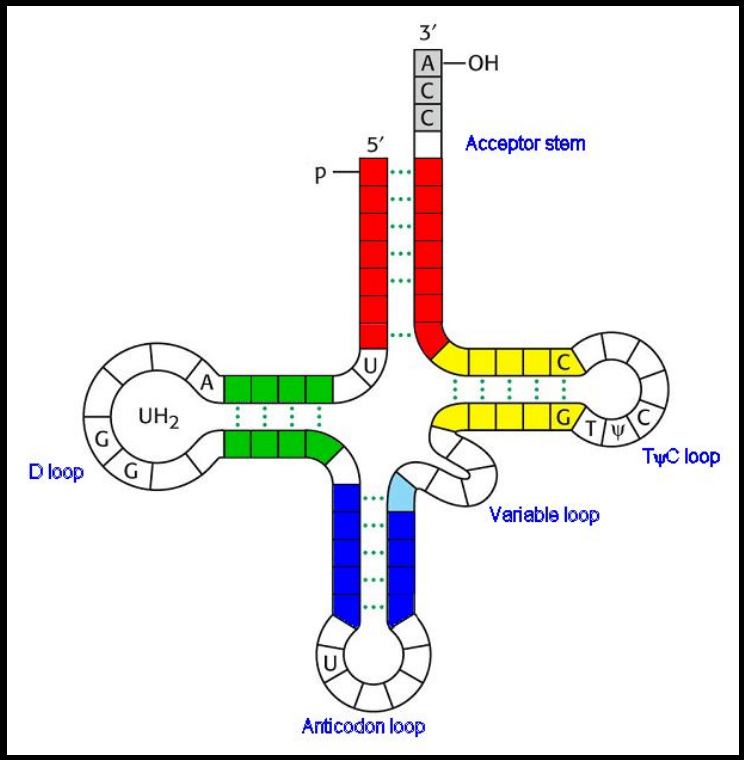
Messenger RNA (mRNA)



mRNA molecules carry copies of instructions for making proteins from the nucleus to the ribosome.

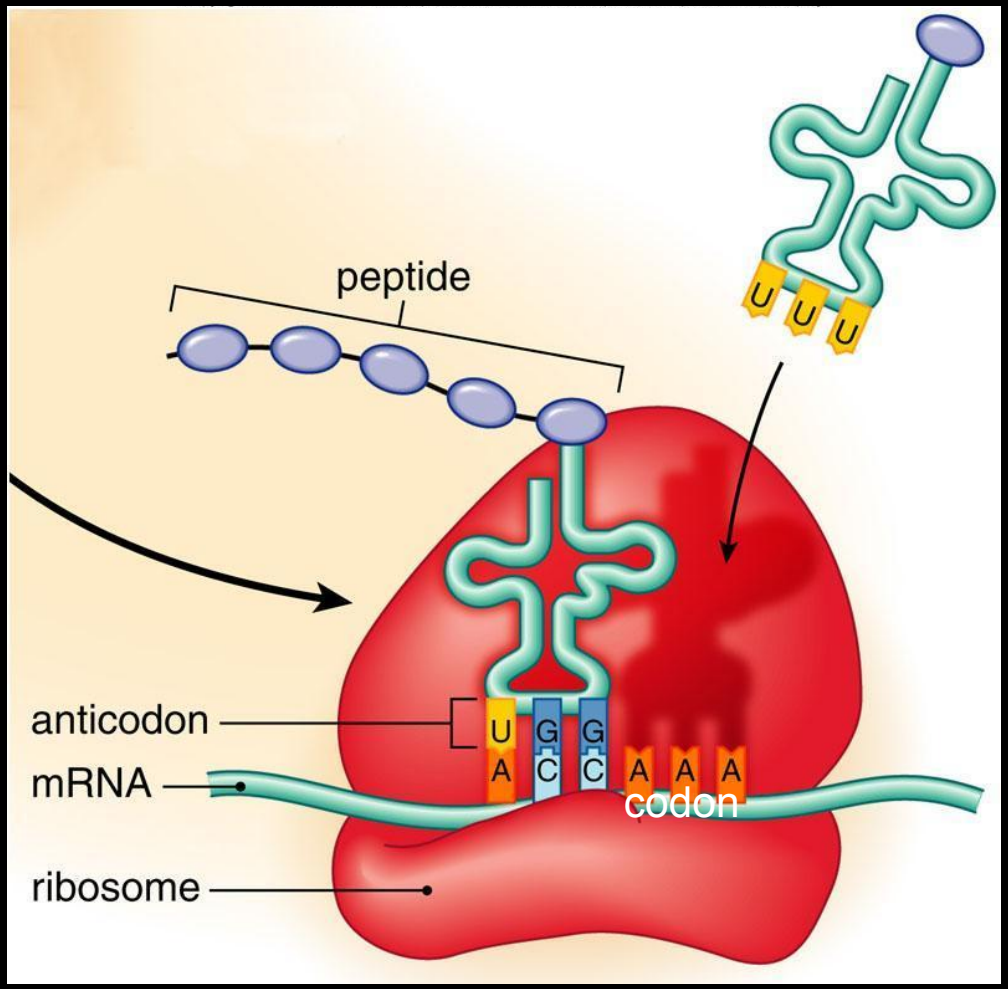
Transfer RNA (tRNA)





tRNA molecules carry amino acids to the ribosome and transfers it to a growing protein chain.

Ribosomal RNA (rRNA)

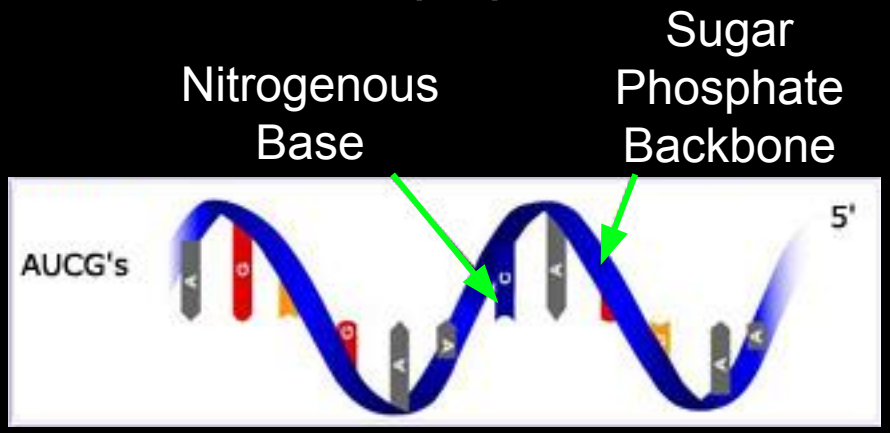


- rRNA is a part of a ribosome
- Couples mRNA codons with tRNA anticodons during protein synthesis.

RNA vs DNA

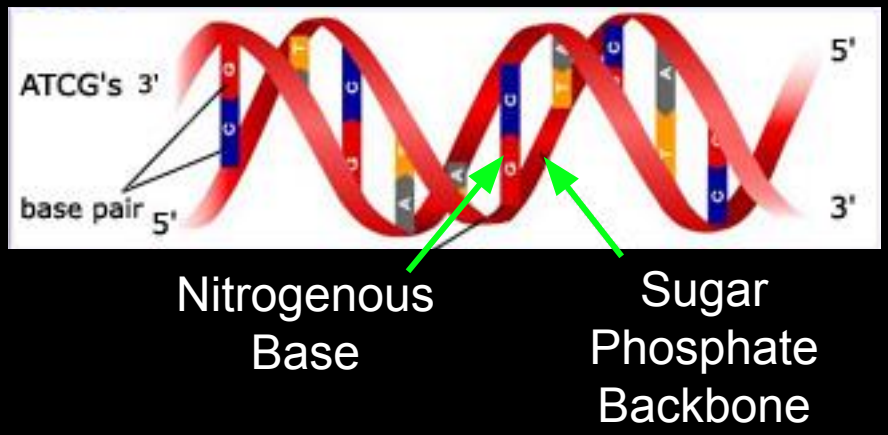
RNA

- single stranded
- short (1 gene)
- ribose sugar
- uracil (U)

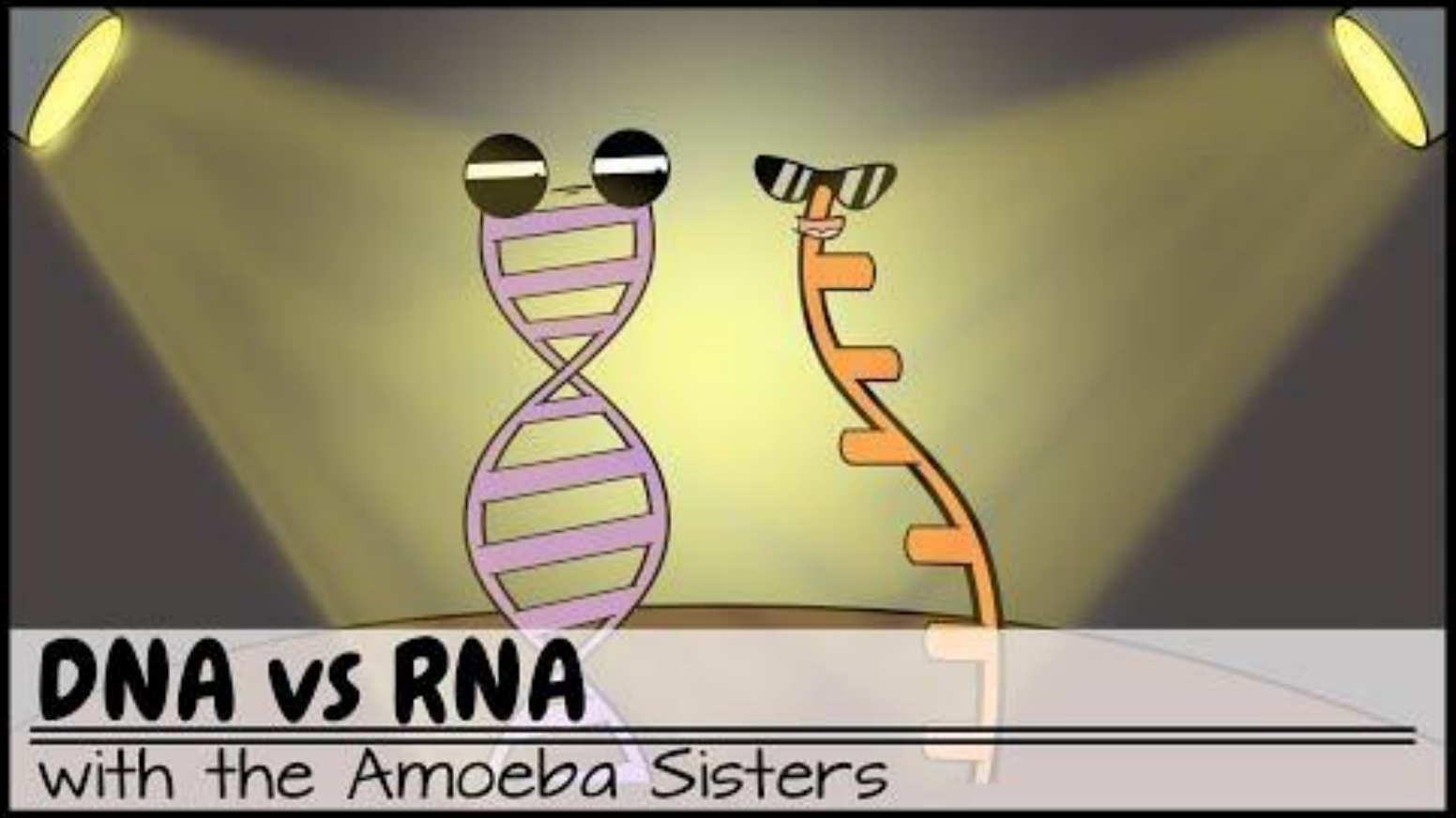


DNA

- double stranded
- long (many genes)
- deoxyribose sugar
- thymine (T)



DNA vs. RNA



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