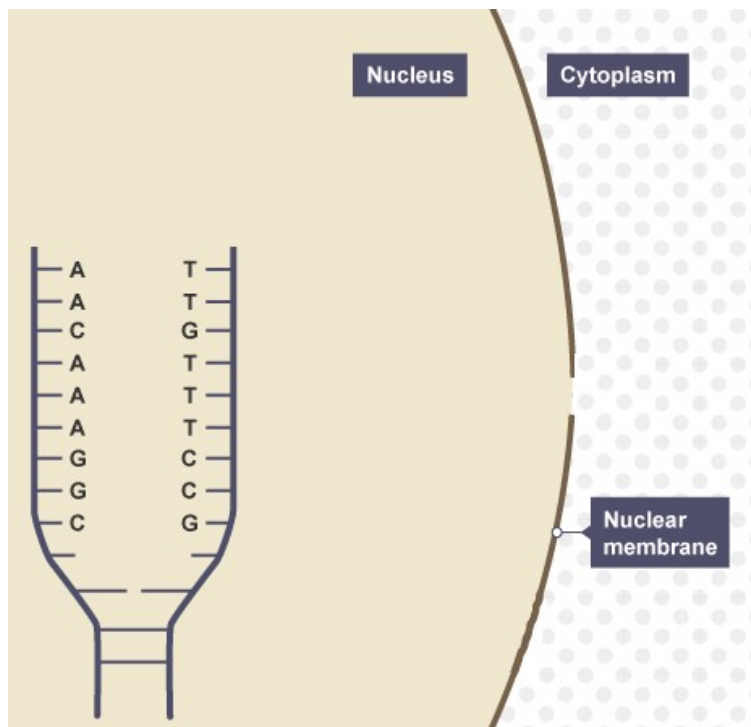
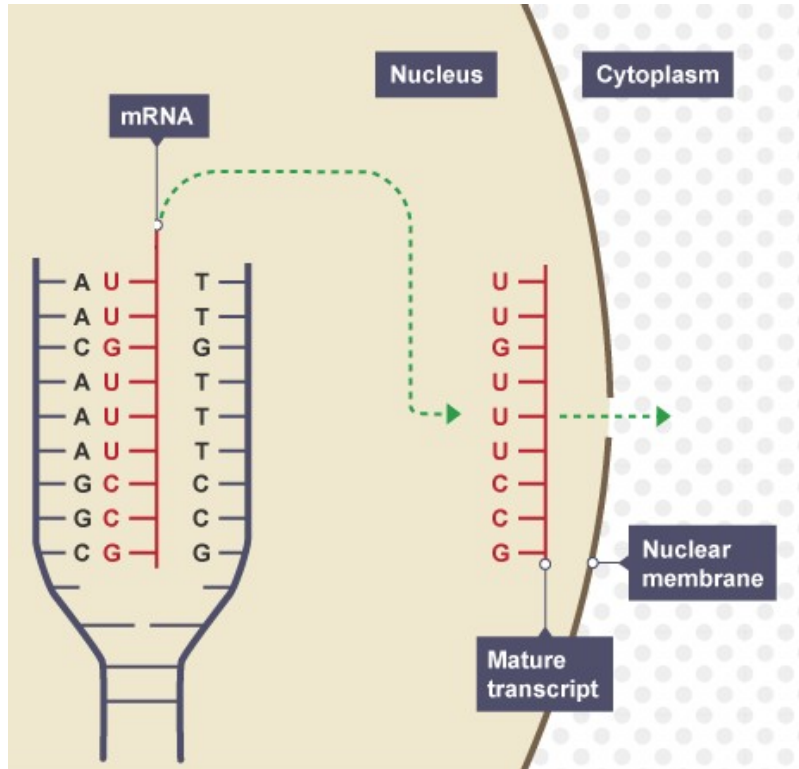


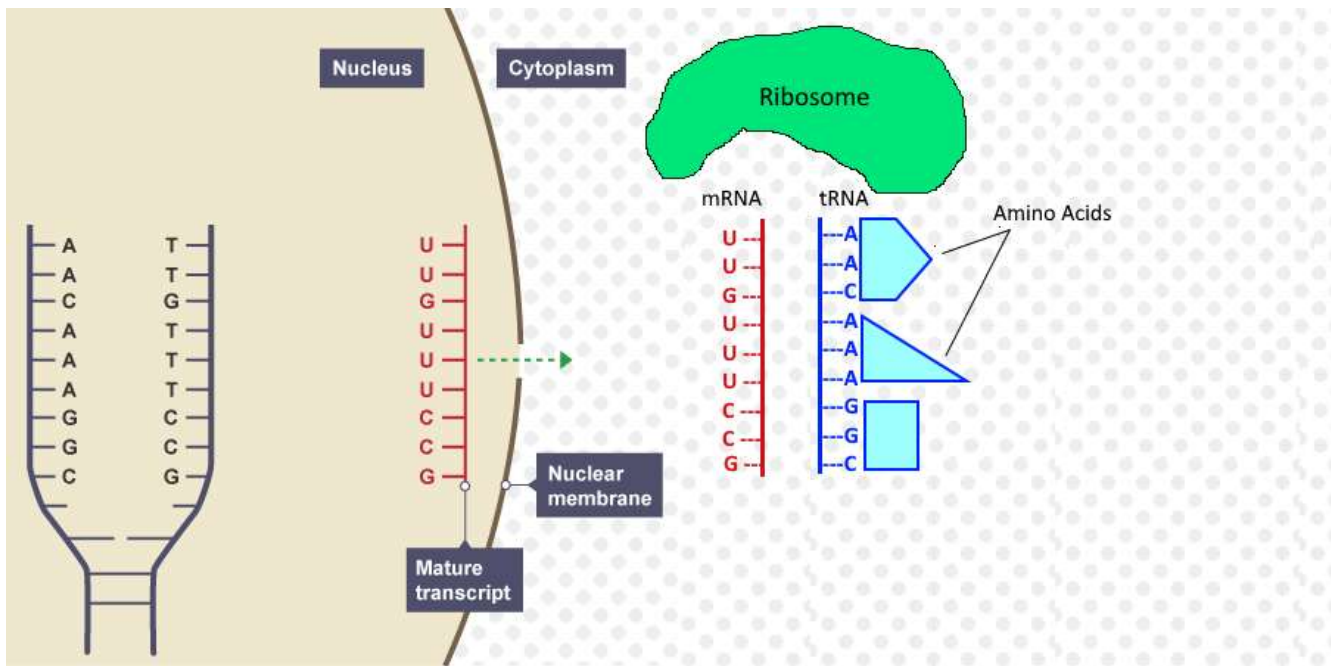
Stages of Protein Synthesis



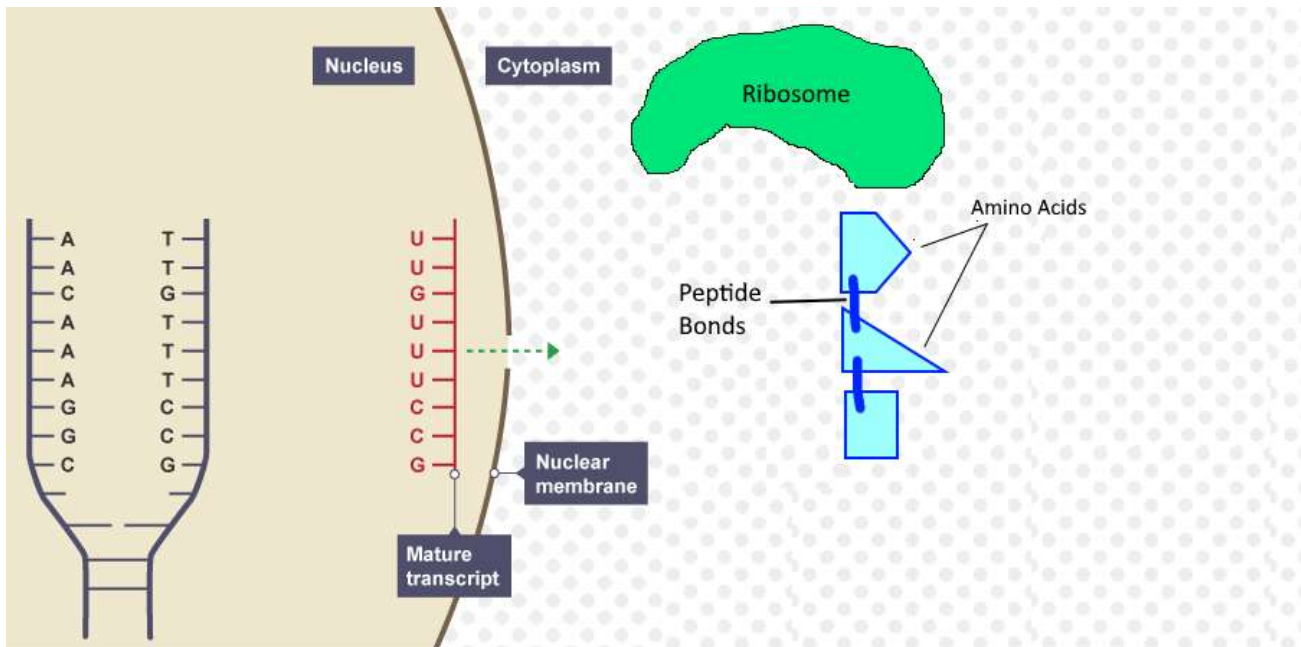
1. The strand of DNA in the nucleus “unzips”.



2. The transfer RNA comes in the nucleus and attaches to the matching bases to copy the code. This is called **transcription**. The bases cytosine and guanine form a pair. Thymine joins with adenine. Adenine joins with uracil (there is not thymine in RNA).



3. The transfer RNA (tRNA) leaves the nucleus and goes to the ribosome in the cytoplasm. Segments of messenger RNA (mRNA) join with the tRNA to form pairs. The mRNA is attached to amino acids. Amino acids are the building blocks of proteins. The sequence of tRNA determines the type of protein formed.



4. Once all the amino acids are lined up (usually hundreds of them), the ribosome joins them together with peptide bonds. The mRNA and tRNA float away and are used again.