

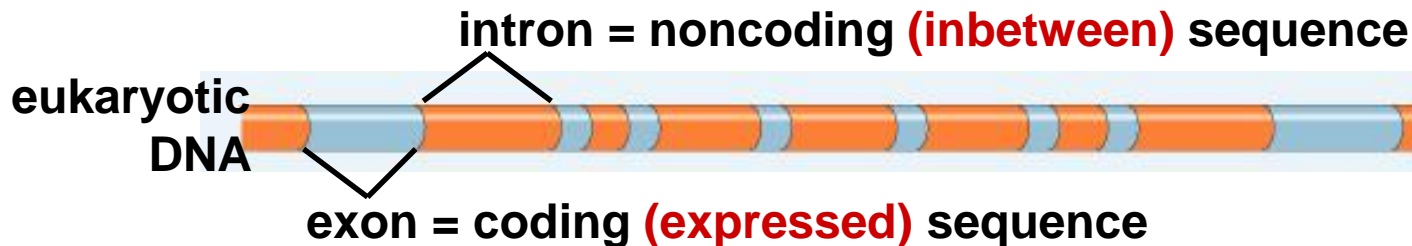
# Prokaryote vs. Eukaryote genes

## ■ Prokaryotes

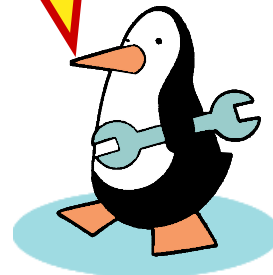
- ◆ DNA in cytoplasm
- ◆ circular chromosome
- ◆ naked DNA
- ◆ no introns

## ■ Eukaryotes

- ◆ DNA in nucleus
- ◆ linear chromosomes
- ◆ DNA wound on histone proteins
- ◆ introns vs. exons



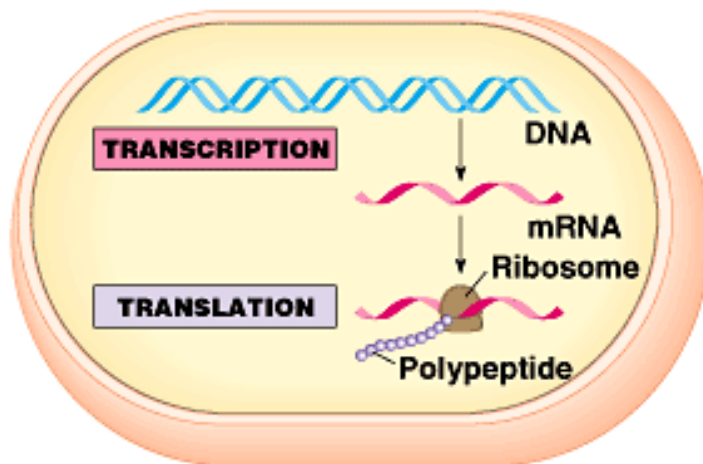
introns  
come out!



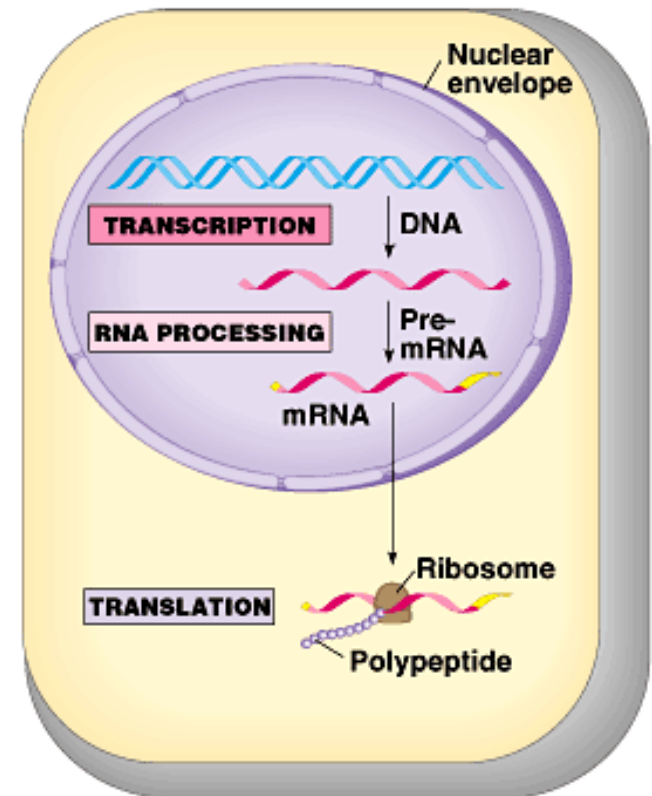
# Protein synthesis: prokaryotes vs. eukaryotes

## ■ Prokaryotes

- ◆ Transcription and translation are simultaneous
- ◆ No mRNA editing
- ◆ No transcription factors



(a) Prokaryotic cell



(b) Eukaryotic cell