

*CFTR* gene is expressed in lungs, intestines, and some other organs

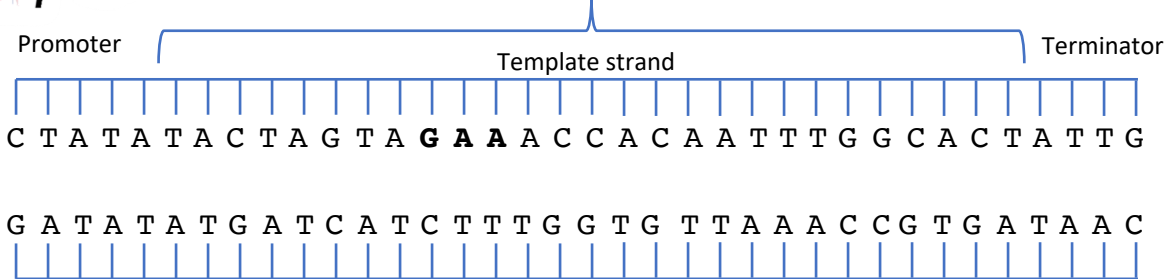
**Actual length of CFTR protein:**  
1480 amino acids

**What is the length of the protein on this worksheet?**

*CFTR* gene  
Transcribed region (>4000 nucleotides long)

What is it?

Where is it?



What is it?

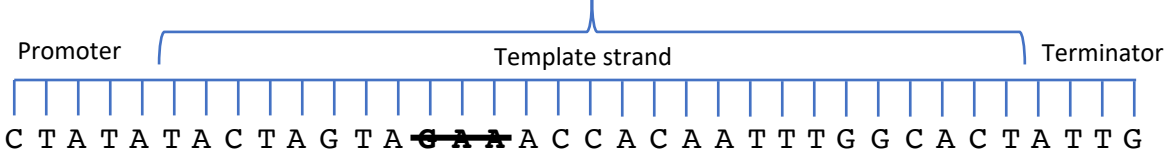
Where is it made?

Where does it go?



Once mRNA is complete, label the codons. Then draw in all of the tRNA molecules carrying the correct amino acids. On each one, label the anticodon and the amino acid. What do you read off the genetic code: the codon or anticodon?

*CFTR* gene, with deletion mutation



Mutant mRNA:

Modified amino acid sequence:

How is the modified protein different?