

TRANSCRIPTION & TRANSLATION REVIEW and PRACTICE

Fill in the table below, listing the major events of transcription and translation

MAJOR STEP	TRANSCRIPTION	TRANSLATION
GENERAL DESCRIPTION		
LOCATION IN CELL		
MOLECULES INVOLVED AND DESCRIPTION OF EVENTS?		
OVERALL RESULT, I.E., WHAT IS THE FINAL PRODUCT SYNTHESIZED AT THE END OF THE PROCESS		

Use the Genetic Code Table (Figure 3.31 on page 103 of Marieb's textbook) to determine appropriate amino acid sequence for the gene below.

DNA Template Sequence (GENE)	Messenger RNA Base Sequence (mRNA)	Amino Acid Sequence (PROTEIN)	Transfer RNA (tRNA) anticodon sequences
<p style="text-align: center;">T A C A T G G A C T C T A T C</p>			

QUESTION: The protein produced above is an enzyme called 'itsybitsyase'. Discuss what would happen if the A and T that are boxed in the DNA sequence above are deleted from the gene. What environmental agent might cause such a deletion? (Use a separate sheet or the back of this sheet if you need more space to discuss your answer.)