

Decode the Message

The genetic material is composed of nucleotides. The sequence of nucleotides in DNA determines the order in which amino acids will be assembled into proteins. Before DNA can be expressed as protein, it must be transcribed into RNA. In this activity, you will transcribe a sequence of DNA bases into an “RNA” message and then translate the RNA message into a “protein” sentence.

Step 1: Transcribe the DNA sequence below in to RNA.

Step 2: Translate the RNA into a quotation by using Table1.

DNA Sequence: GAG AAG ACA GTA TAA ACG TTT TTG GGC CGG

Table 1.

RNA	Word	RNA	Word	RNA	Word	RNA	Word	RNA	Word	RNA	Word
UUU	the	CUG	right	GUG	be	UGU	am	GGG	like	GCC	RNA
UUC	I	AUU	in	UAU	track	UGC	translation	AAA	just	GGC	fun
UUG	on	AUC	think	UAG	you	UGA	under	CCC	to	GCA	proton
CUU	a	AUA	smiles	CAU	lost	AGU	positive	CCU	is	AAG	play
CUC	if	AUG	just	CAA	even	GGU	yes	CCA	do	AAC	blame
CUA	over	GUU	do	CAG	shade	GGA	always	CCG	my	AAU	laughs