

		Second letter					
		U	C	A	G		
First letter	U	UUU Phenylalanine UUC UUA Leucine UUG	UCU Serine UCC UCA UCG	UAU Tyrosine UAC UAA Stop codon UAG Stop codon	UGU Cysteine UGC UGA Stop codon UGG Tryptophan	Third letter	U
	C	CUU Leucine CUC CUA CUG	CCU Proline CCC CCA CCG	CAU Histidine CAC CAA Glutamine CAG	CGU Arginine CGC CGA CGG		C
	A	AUU Isoleucine AUC AUA AUG Methionine; start codon	ACU Threonine ACC ACA ACG	AAU Asparagine AAC AAA Lysine AAG	AGU Serine AGC AGA Arginine AGG		A
	G	GUU Valine GUC GUA GUG	GCU Alanine GCC GCA GCG	GAU Aspartic acid GAC GAA Glutamic acid GAG	GGU Glycine GGC GGA GGG		G

PRINCIPLES OF LIFE, Figure 10.11
© 2012 Sinauer Associates, Inc.

Bug DNA (A)

Here is your bug's DNA. In order to decode the genetic message, you will first need to divide the DNA into triplets. Then transcribe the DNA into mRNA and translate the mRNA into amino acids. The amino acid sequence coded for by the DNA will determine the traits of your bug.

GAGCGACTT GGACGGCCT GCAAAAGTG TAAACAACATAACG

head gene

thorax gene

abdomen gene

eye color gene

CGCAGGGTTCTA

wing color gene

TAGCTAACG

wing length gene

TGACAGTTAGGA

leg length gene

TGGACAAGT

antenna gene

GCCGGAGTG

body color gene