



DNA Detective

Use the DNA sequence below, and the amino acid translation grid to work out the coded message

<p>TGG CAT TAT ATT TCT GCT CGT GCC GTT GAA AAT CTT ATC AAA GAG GCA TGG</p> <p> </p> <p>— — — / — — / — / — — — — — — / — — — — — / — / —</p> <p>CGC ATA ACT ATT AAC GGT GAT GAA AGT AAG</p> <p> </p> <p>— — — — — — / — — — —</p>
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How does the mutation introduced change the amino acid code produced?

<p>TGG CAT TAT ATT TCT GCT CGT GCC GTT GAA AAT ATG ATC AAA GAG GCA TGG</p> <p> </p> <p>— — — / — — / — / — — — — — — / — — — — — / — / —</p> <p>CGC ATA ACT ATT AAC GGT GAT GAA AGT AAG</p> <p> </p> <p>— — — — — — / — — — —</p>
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Amino Acid Translation Grid

To translate the three letter DNA code, take the first letter from the **green** bar, the second letter from the **pink** bar and the third from the **blue** bar. For example, the DNA code 'ATG' gives amino acid M methionine.

	T	C	A	G	
T	TTT F	TCT	TAT Y	TGT C	T
	TTC Phenyl-alanine	TCC	TAC Tyrosine	TGC Cysteine	C
	TTA L	TCA Serine	TAA Stop	TGA Stop codon	A
	TTG Leucine	TCG	TAG Stop codon	TGG W Tryptophan	G
C	CTT	CCT	CAT H	CGT	T
	CTC L	CCC P	CAC Histidine	CGC R	C
	CTA Leucine	CCA Proline	CAA Q	CGA Arginine	A
	CTG	CCG	CAG Glutamine	CGG	G
A	ATT	ACT	AAT N	AGT S	T
	ATC I	ACC T	AAC Asparagine	AGC Serine	C
	ATA Isoleucine	ACA Threonine	AAA K	AGA R	A
	ATG M Methionine	ACG	AAG Lysine	AGG Arginine	G
G	GTT	GCT	GAT D	GGT	T
	GTC V	GCC A	GAC Aspartic Acid	GGC G	C
	GTA Valine	GCA Alanine	GAA E	GGA Glycine	A
	GTG	GCG	GAG Glutamic Acid	GGG	G

