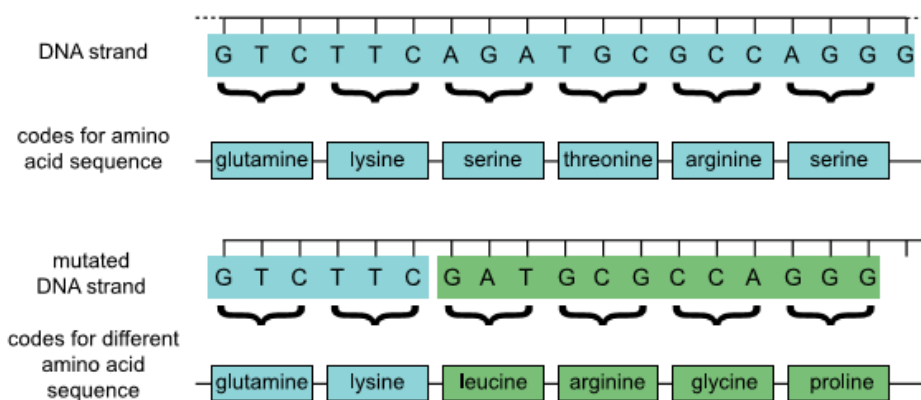


Genes, proteins and human genomics

Complete the glossary words and questions in advance of the online session on 8th February 2018.

Key Area 4: Genes & Proteins in health and disease	
Chromosome	
Deletion (of genes)	
Deletion (of nucleotides)	
Duplication	
Frameshift mutation	
Insertion	
Missense	
Nonsense	
Splice site mutation	
Substitution	
Translocation	

Q1. This is a deletion mutation. The first 'A' nucleotide in the original DNA strand has been removed (or deleted). Answer the following questions:



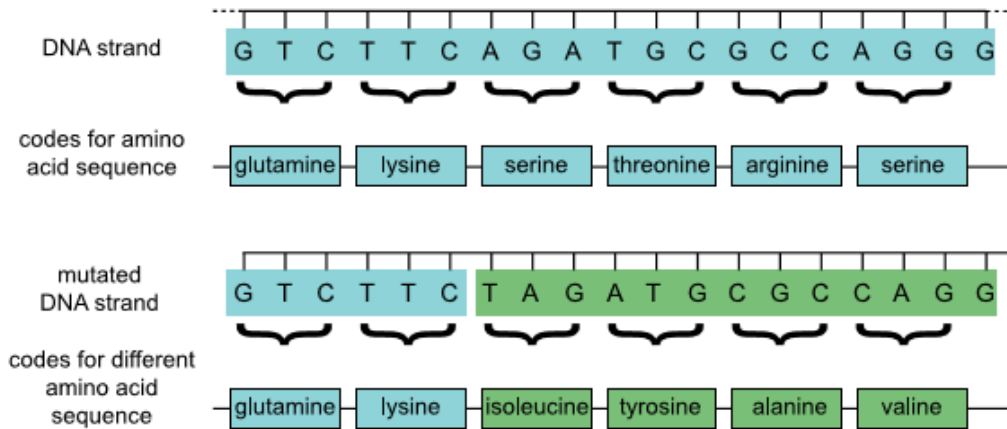
a) How many amino acids in this sequence have been changed?

.....

b) Is a deletion mutation a point or a frameshift mutation?

.....

Q2. This is an insertion mutation. The 'T' nucleotide has been inserted between the 'C' and 'A' nucleotides in the original DNA strand. Answer the following questions:



a) How many amino acids in this sequence have been changed?

.....

b) Is an insertion mutation a point or a frameshift mutation?

.....