

0 1 2 3 4 5 6 7 8 9  
X = **G T T C C T A A T A**

Y = C **G** A **T** A A **T T** G **A** G **A**

0 1 2 3 4 5 6 7 8 9 10 11

The diagram illustrates a sequence alignment between two DNA sequences, X and Y. Sequence X is 'G T T C C T A A T A' with indices 0 to 9. Sequence Y is 'C G A T A A T T G A G A' with indices 0 to 11. Blue arrows indicate matches between the sequences: X[0] (G) matches Y[1] (G), X[1] (T) matches Y[3] (T), X[2] (T) matches Y[6] (T), X[5] (T) matches Y[7] (T), X[6] (A) matches Y[9] (A), and X[9] (A) matches Y[11] (A). The matched nucleotides in both sequences are highlighted in blue.