

TEACHER PRINTOUT

Mutation Cards

Insertion

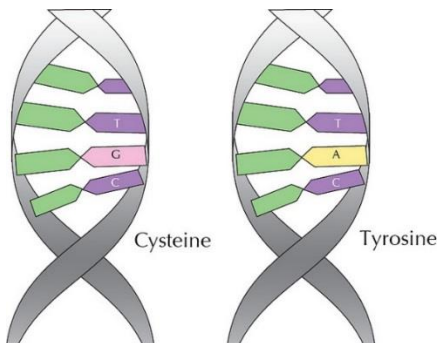
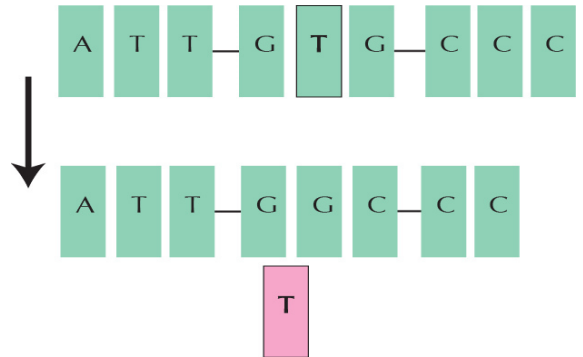
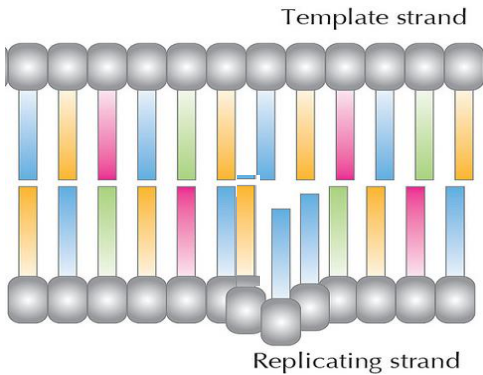
Deletion

Substitution

A base is added into the DNA sequence

A base is removed from the DNA sequence

One base is exchanged for another in the DNA sequence



TEACHER PRINTOUT**Genetic Disorder Chart**

Genetic Disorder	Chromosome Abnormality	Symptoms
Down's Syndrome	Extra chromosome on # 21 (trisomy 21)	Possible heart defects, prone to respiratory disease, short stature Usually some degree of mental retardation
Cri du chat	Deletion of a small portion of chromosome # 5	Severe mental retardation Small head with unusual features A cry that sounds like a distressed cat
Turner's Syndrome	Missing one of the sex chromosomes (monosomy) # 23 XO	Genetically female, but do not reach sexual maturity, sterile Normal intelligence
Patau Syndrome	Extra chromosome on # 13 (trisomy 13)	Serious eye, brain, circulatory defects Cleft palate Many do not survive past a few months
Edward's Syndrome	Extra chromosome on # 18 (trisomy 18)	Rare disorder, majority of people with the syndrome die as a fetus Infants who survive have serious defects Short life expectancy