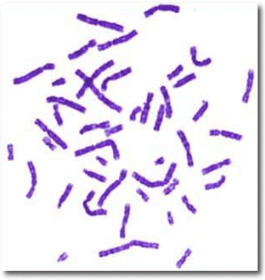
Enriched Genetics Notes

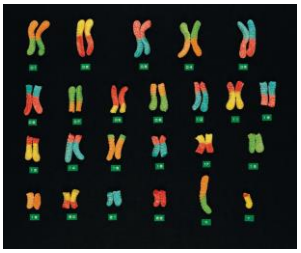
Genetic def: _____

_____

Chromosomes : _____

_____

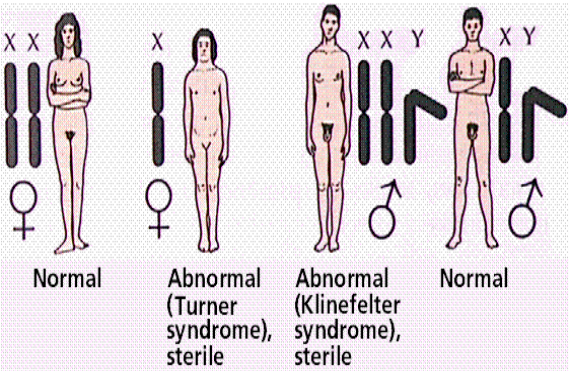


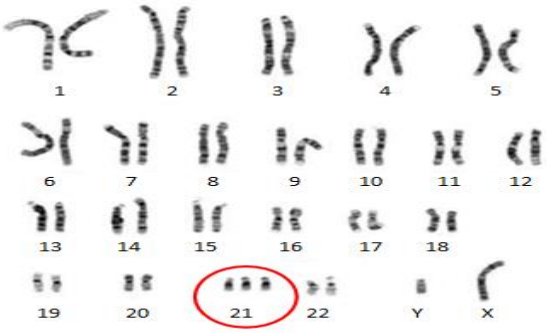


Karyotype: _____

_____

Chromosomal abnormalites

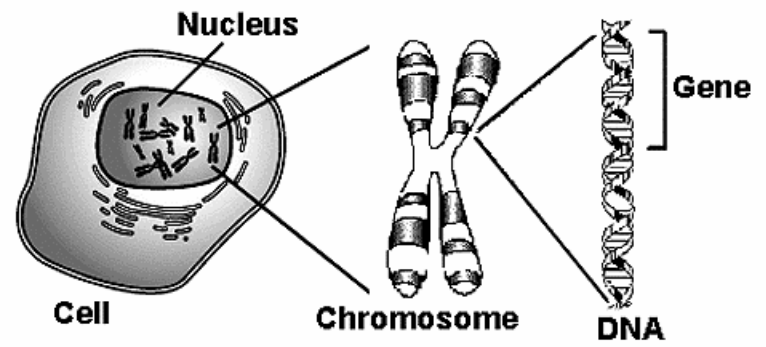




Male karyotype with Down syndrome - characterised by three copies of chromosome 21

Genes: _____

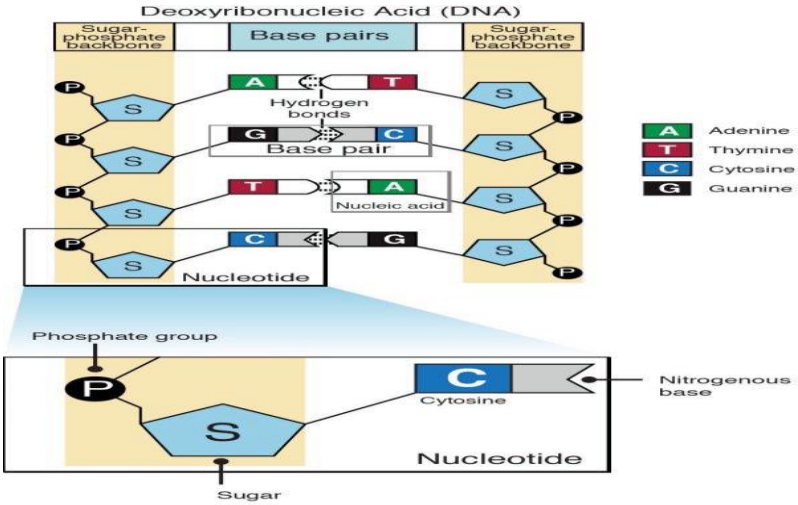
_____



DNA: _____

_____

Nucleotide: _____

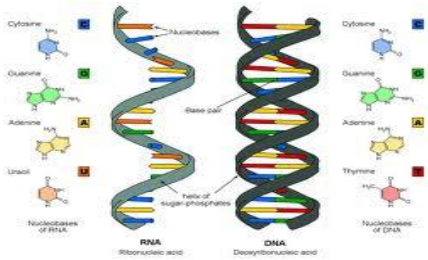


Nitrogen bases:

1 nucleotide:

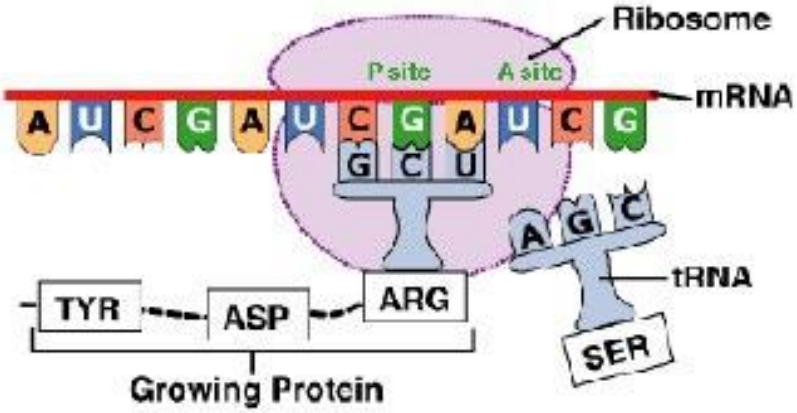
RNA: _____

DNA	RNA



Types of RNA

Messenger RNA	Transfer RNA



Ribosome: _____

_____

Proteins: _____

_____

_____

Amino Acids: _____

_____

second base in codon

first base in codon	U	C	A	G	third base in codon
U	UUU Phe	UCU Ser	UAU Tyr	UGU Cys	U
	UUC Phe	UCC Ser	UAC Tyr	UGC Cys	C
	UUA Leu	UCA Ser	UAA stop	UGA stop	A
	UUG Leu	UCG Ser	UAG stop	UGG Trp	G
C	CUU Leu	CCU Pro	CAU His	CGU Arg	U
	CUC Leu	CCC Pro	CAC His	CGC Arg	C
	CUA Leu	CCA Pro	CAA Gln	CGA Arg	A
	CUG Leu	CCG Pro	CAG Gln	CGG Arg	G
A	AUU Ile	ACU Thr	AAU Asn	AGU Ser	U
	AUC Ile	ACC Thr	AAC Asn	AGC Ser	C
	AUA Ile	ACA Thr	AAA Lys	AGA Arg	A
	AUG Met	ACG Thr	AAG Lys	AGG Arg	G
G	GUU Val	GCU Ala	GAU Asp	GGU Gly	U
	GUC Val	GCC Ala	GAC Asp	GGC Gly	C
	GUA Val	GCA Ala	GAA Glu	GGA Gly	A
	GUG Val	GCG Ala	GAG Glu	GGG Gly	G

Protein Synthesis

Mutations

- Errors in genetic codes- made during replication of DNA).
- Errors may be good, irrelevant or bad.

Past Exam Questions

1. DNA is the molecule that allows us to code all genetic characteristics. During protein synthesis, new molecules are formed to facilitate this process. A strand of DNA is shown below.

AGC TAC CTG GAA GTT CCT

Which strand of mRNA below, corresponds to the strand of DNA above?

A) UCG AUG GAC CUU CAA GGA
B) TCG ATG GAC CTT CAA GGA
C) UCT AUT TAC CUU CAA TTA
D) TCG UTG GUC CTT CUU GGU