

Genetics Keywords

1. anticodon
2. coding strand
3. codon
4. complimentary base pairs
5. cytokinesis
6. degenerate code
7. disulfide bridge
8. DNA ligase
9. DNA polymerase
10. eukaryotic
11. exon
12. helicase
13. inducer
14. intron
15. karyotype
16. lagging strand
17. leading strand
18. metabolic pathway
19. mRNA
20. okazaki fragment
21. operator site
22. operon
23. prokaryotic
24. promoter site
25. protein synthesis
26. purines
27. pyrimidines
28. regulator gene
29. replication fork
30. RNA polymerase
31. RNA
32. structural gene
33. template strand
34. transcription
35. transcription factor
36. transcription unit
37. translation
38. triplet
39. tRNA

- A The strand of DNA in replication that is copied in the 5' to 3' direction
- B A gene that is transcribed, a structural gene
- C The chart formed when photographs of chromosomes are laid out in order of size. (They may be used to identify chromosomal abnormalities.)
- D The site that a repressor protein can bind to prevent transcription
- E The production of polypeptide chains (and subsequent specific folding), the order of the amino acids in the chain being determined by the genetic code.
- F Two bases that pair together. A is complementary to T and C is complementary to C.
- G The double ringed nitrogenous bases nucleic acid nucleotides (A and G)
- H A small section of DNA. (These occur because DNA is replicated in the 5' to 3' direction and the other strand short section of DNA are connected in)
- I A group of 3 bases on the sense strand of the DNA
- J The shortest chained RNA molecules whose anticodons determine which specific amino acid to pick up and where to line up on the mRNA.
- K A gene necessary for the initiation of transcription. Transcription occurs when the RNA polymerase binds to the promoter gene site.
- L The making of protein at the ribosome (usually on the rough ER)
- M The enzyme that splits and unwinds the 2-stranded DNA molecule in replication
- N The division of the cytoplasm following the end of nuclear division in cell division.
- O The making of mRNA in the nucleus as a copy of the DNA message.
- P Otherwise known as the antisense strand complementary base pairs with the mRNA in transcription.
- Q A group of 3 bases on the tRNA
- R The enzyme that extends RNA primer with short lengths of complementary DNA
- S Ribonucleic acids are the single stranded nucleic acids (ribonucleic acid)
- T A series of enzyme-controlled reactions that convert compounds from one to another.
- U The enzyme that synthesises a short RNA primer which is later removed in DNA replication
- V The enzyme that joins neighbouring fragments of DNA together
- W One or more structural genes plus the associated regulators (including operator site, promoter site and regulator gene – in prokaryote cells)
- X A molecule that binds to the repressor protein (in prokaryotes) and transcription occurs because the repressor molecule cannot bind to the operator site and prevent transcription.
- Y Any enzyme (or other protein) that is required for transcription (other than RNA polymerase). They bind to the promoter site in eukaryotes.
- Z The strand in replication that is copied 3' to 5' as Okazaki fragments and then joined up with ligase.
- Aa Genes that are responsible for producing enzymes that control the metabolic pathway.
- Bb Codes for the repressor protein in prokaryotes.
- Cc For each amino acid there may be more than one codon (often the third nucleotide is different).
- Dd A length of DNA that is not transcribed (is cut out of mRNA before translation).
- Ee Otherwise called the sense strand; has the same nucleotide sequence as the mRNA (with T replaced by U in the RNA of course).
- Ff The Y-shaped molecule formed when the H bonds between the base pairs in DNA are broken at the initiation of replication.
- Gg Links holding protein folds into specific shapes that are held by bonds between neighbouring amino acids (cystein) where a disulfide bond forms.
- Hh The single ringed nitrogenous bases in nucleic acid nucleotides (C, T and U).
- li Two or more genes that together code for a functional protein.
- Jj Cells that have many membrane bound organelles in their cytoplasm including the nuclear membrane e.g. plant and animal cells
- Kk Type of cell found in bacteria. (They lack mitochondria, chloroplasts, nuclear membrane).
- Ll The nucleic acid that carries DNA's message out to the ribosomes for translation.
- Mm A group of 3 bases on the RNA.

Answers:

1	Q
2	Ee
3	Mm
4	F
5	N
6	Cc
7	Gg
8	V
9	R
10	Jj
11	B
12	M
13	X
14	Dd
15	C
16	Z
17	A
18	T
19	Ll
20	H

21	D
22	W
23	Kk
24	K
25	E
26	G
27	Hh
28	Bb
29	Ff
30	U
31	S
32	Aa
33	P
34	O
35	Y
36	Ii
37	L
38	I
39	j