

Protein synthesis and gene variants

Triple only

Higher tier

What decides the order of amino acids in a protein?

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How does a protein get its specific shape?

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Name the two stages of protein synthesis.

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What does RNA polymerase bind to?

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What does RNA polymerase produce?

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What is a codon?

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What is the role of tRNA?

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What happens to amino acids at the ribosome?

The chain of amino acids folds. The way it folds depends on the order of amino acids.

The order of bases in a section of DNA.

Non-coding DNA located in front of a gene.

Transcription and translation.

A triplet of bases in mRNA that codes for a specific amino acid.

A complementary mRNA strand from the coding DNA of the gene.

They are linked together to form a polypeptide.

It transfers amino acids to the ribosome.

How can a variant in non-coding DNA affect phenotype?

How can a variant in coding DNA affect phenotype?

It can alter the sequence of amino acids,
and so the activity of the protein produced.

It can change the binding of RNA
polymerase, altering the quantity of protein
produced.