Foxford Learning Plan

YEAR 12

Genetic information

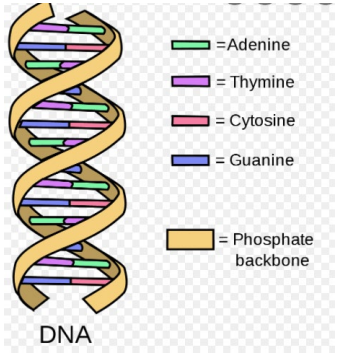
Spring 1 and 2

Key Vocabulary

Autosome	a chromosome which is not a sex chromosome.
Biodiversity	the range and variety of genes, species and habitats within a particular region.
Codon	a sequence of three adjacent nucleotides in mRNA that codes for one amino acid
Community	all the living organisms present in an ecosystem at a given time.
Gene	section of DNA on a chromosome coding for one or more polypeptides.
Gene mutation	a change to one or more nucleotide bases in DNA resulting in a change in genotype which may be inherit
Transcription	formation of messenger RNA molecules from the DNA that makes up a particular gene. It is the first stage of protein synthesis.
Species	a group of similar organisms that can breed together to produce fertile offspring
Nucleotides	complex chemicals made up of an organic base, a sugar and a phosphate. They are the basic units of which the nucleic acids DNA and RNA are made.

Key Skills

Over the course of the topic, I will be able to: -
Explain the process of gene synthesis
Describe genetic diversity
Apply how biodiversity affects species
Evaluate variation and relationship between organisms



I will understand

1. the difference between DNA, mRNA and tRNA
2. the process of transcription, splicing and translation
3. how mutations can change protein sequence
4. the impact of human activity to biodiversity