

AQA GCSE Biology (Higher) For the Summer 2022 Exams

Flashcard Notes - 6.1.4 DNA and the genome

Copy the questions and answers below onto flashcards and use them to test yourself.

What is DNA?

DNA is a biological molecule which contains instructions for making proteins. It is a polymer made up of two strands which are coiled around each other to form a shape called a double-helix. In eukaryotes, DNA is found in the nucleus of each cell.

What is a genome?

The genome of an organism is the entire genetic material of that organism (in other words, it is all of that organism's DNA).

What is a gene?

A gene is a section of a DNA molecule that contains the instructions for making a particular protein.

What is a chromosome?

A chromosome is a very large DNA molecule, usually containing hundreds or thousands of genes. Some chromosomes are circular, others are linear. Most DNA is in the form of chromosomes.

What is genome sequencing and how has it been used with the human genome?

Genome sequencing is when scientists find out the DNA sequence of an organism's genome. The entire human genome has now been sequenced.

What are the medical benefits of sequencing the human genome?

Sequencing the human genome allows scientists to:

- Search for genes linked to particular diseases
- Understand and treat inherited disorders

What other benefit does the sequencing of the human genome have?

Sequencing the human genome allows scientists to trace past human migration patterns.