

**Higher Human Biology**

**Human cells: Human Genomics (Key Area 5)**

By the end of this topic I will be able to:

1. State the definition of a genome and what it is made up of.
2. Understand what the Human Genome Project is and its importance in advances in research.
3. State that bioinformatics is the comparison of sequence data using computer and statistical analyses.
4. State that scientists use computers to identify gene sequences by looking for sequences similar to known genes or known start/stop sequences.
5. Appreciate that this allows the identification of base sequences that correspond to the amino acid sequence of a protein.
6. Understand how advances in the sequencing of genomes can be used to predict the likelihood of an individual developing certain diseases.
7. Describe how Pharmacogenetics and personalised medicine can be used to improve the treatment of patients