|  |  |  |
| --- | --- | --- |
| **What will we be learning?**  **Year 12 Nucleic Acids** | **Why this? Why now?**  Previous Learning  Future Learning  Enquiry Processes  Analyse Patterns, Draw conclusions, Present data, Justify opinions, Collect data, Present data, Plan variables | **Key Words:**  **Adenine**  **Adenosine triphosphate**  **Base**  **Base pair**  **Cytosine**  **Deoxyribose**  **DNA helicase**  **DNA polymerase**  **Guanine**  **Nucleotide**  **Phosphorylation**  **Ribose**  **Semi-conservative replication**  **Thymine**  **Uracil** |
| **What will we learn?**   * That the structure of a nucleotide is a monomer from which nucleic acids are made * About the synthesis and breakdown of polynucleotides by the formation and breakage of phosphodiester bonds * About the structure of ADP and ATP * The structure of DNA (deoxyribonucleic acid) and how to purify DNA by precipitation * Semi-conservative DNA replication * The nature of the genetic code * About the transcription and translation of genes resulting in the synthesis of polypeptides   **Misconceptions in this topic** | |
| **What opportunities are there for wider study?**  Careers  Forensics Biochemistry Medicine Laboratory Work Teaching Pharmacology Biotechnology Veterinary Work  STE(A)M  https://highcliffe.sharepoint.com/sites/LearnSTEM | |
| **How will I be assessed?**  End of topic assessment | |