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| **Unit intention:**  Knowledge of how enzymes function and the factors that affect enzyme action has improved our understanding of biological processes and increased our use of enzymes in industry. Enzymes are studied at GCSE. Most students beginning A Level will understand the nature of enzymes, the mechanism of enzyme action, and factors that affect the rate of enzyme-controlled reactions. Students’ prior knowledge and understanding can be used as a base from which to introduce the greater depth and breadth required at A Level. |
| **Success criteria:** | 🗸 | X |
| 1.The mechanism of enzyme action2.The role of enzymes in catalysing reactions that affect metabolism at a cellular and whole organism level.3.The role of enzymes in catalysing both intracellular and extracellular reactions.4.The effects of pH, temperature, enzyme concentration and substrate concentration on enzyme activity. 5.The need for coenzymes, cofactors and prosthetic groups in some enzyme-controlled reactions. 6.The effects of inhibitors on the rate of enzyme controlled reactions. |  |  |
| **Unit summative and formative assessment details:**Weekly Seneca, factual re-call Extended writing End of unit test  |
| **Home Learning (What and how often):**Homework once a week (flip learning and Seneca)Revisit class content (make notes)Research activities for practical  |
| **Topic Sequence**1. Actions of Enzymes
2. Factors affecting enzyme Activity
3. Cofactors and Enzyme Inhibition
4. Cofactors continued
 | **Recommended reading:** <http://www.histologyguide.org/Slide_Box/Slide_Box.html><http://www.saps.org.uk/secondary/teaching-resources/871-medicines-and-drugs-from-plants-trumps-card-game>HPA Recommended biological dictionary: <http://www.biologyreference.com/> |

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| **Success criteria** – Have you met them? Show your evidence in the boxes below. |
| **1.** |
| **2.** |
| **3.** |
| **4.** |
| **How will you improve your work?** |