**Applied Science KS5 Overview** ***2021-2022***

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|  | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| Year 12 | **Unit 1:**  - Chemical structures of elements and compounds  - Reactions in chemical and biological systems  - Cell organisation and structures | **Unit 1:**  - Principles of carbon chemistry  - The importance of inorganic chemistry in living systems  - Structures, properties and uses of materials | **Unit 1 exam.**  **Unit 2:**  - The importance of health and safety and quality systems to  industry  - Separate, identify and quantify substances  present in a mixture | **Unit 2:**  - Determine the concentration of an acid or base using titration  - Examine and record features of biological samples | **Unit 2:**  - Identify cations and anions in samples  - Aseptic technique | **Unit 1 and 2 exams**  **Year 13 Prep:**  - Lab visit  - Development of titrations |
|  | **Autumn 1** | **Autumn 2** | **Spring 1** | **Spring 2** | **Summer 1** | **Summer 2** |
| Year 13 | **Unit 6**  - Hazards in the laboratory  - Risk Assessment  **Unit 21:**  - Hazard Labelling Regulations | **Unit 6:**  - Laboratory Design  **Unit 18:**  - Classify and identify microorganisms  **Unit 21:**  - Test Method Development | **Unit 1 and 2 resit exams**  **Unit 18:**  - Microbiology in the farming environment  **Unit 21:**  - Performing Titrations | **Unit 18**  - Use microbiology in food production.  **Unit 21:**  - Performing Extraction, Separation & Thin Layer  Chromatography | **Unit 1 and 2 resit exams**  **Unit 18:**  - Action of antimicrobials on microorganisms | **Course end** |