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| **Week** | **Coursework Topics and Texts** | **Evaluation Strategies** |
| Term 1  1 | Goal setting – entry into year 11 Science subjects  How to study  Learning styles  **Chemistry: Atomic structure**  *Diagnostic assessment*  Structure of Atoms review  Arrangement of electrons in electron shells  The Periodic Table – how it is organised and why | Diagnostic: Chemistry |
| 2 | Periods of the Periodic Table – relationship to valence electrons  Valence electrons determine properties of the element.  The octet rule. | Formative: Atomic structure |
| 3 | Valence electrons determine type of bonding in reactions.  Ionic and covalent bonding | Formative: Ionic and covalent bonding |
| 4 | Metallic Bonding  Properties of Metals | **Summative: Atomic structure & bonding 10%** |
| 5 | *Investigation: Students plan, carry out and interpret results of an investigation* | ***Validation: Reactions 10%*** |
| 6 | **Chemistry: Reactions**  Naming elements and compounds, writing formulae  Writing and balancing chemical equations | Formative: Balancing equations |
| 7 | Decomposition and Combination reactions  Precipitation reactions – using solubility rules | Formative: Reactions 1 |
| 8 | Oxidations and reduction reactions  Combustion/redox reactions | Formative: Reactions 2 |
| 9 | Factors affecting reaction rates | Formative: Rates of reactions |
| 10 | Chemistry consolidation | **Summative: Reactions 15%** |
| Term 2  1 | **Biology: Genetics**  Structure and function of DNA  Relationship of DNA to genes and chromosomes  Location of DNA in the cell | Diagnostic: Genetics |
| 2 | Sexual and Asexual reproduction  Meiosis and Fertilisation  How traits are passed from one generation to the next  Genetics vocabulary | Formative: DNA and cellular division |
| 3 | Inheritance of single gene traits  Dominant and recessive genes  Use of punnet squares to model inheritance  Sex linked inheritance | Formative: Inheritance |
| 4 | Role of mutations in inheritance  Cause of mutations | **Summative: Genetics 15%** |
| 5 | **Biology: Biodiversity**  Introduction to Evolution  Biodiversity as a function of Evolution  History of evolutionary theory development  Artificial Selection  ‘Survival of the fittest’ | Diagnostic: Evolution |
| 6 | Natural Selection as a mechanism of evolution.  Mechanisms of variation and isolation | Formative: Natural selection and speciation |
| 7 | Evidence for Evolution: Fossil record, homologous and analogous structures, embryology, protein structure, biogeography | Formative: Evidence for evolution |
| 8 | Biology consolidation | **Summative: Biodiversity 15%** |
| 9 | Exam Revision |  |
| 10 | Year 10 Examination | **Summative: Examination 35%** |

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| Assessment Outline | |
| Investigations | 10% |
| Tests | 55% |
| Exam | 35% |
| Total | 100% |