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| **Year 10 Curriculum Overview [2023-2024]**  **Science – Combined Science** | | | | | | |
| **Autumn Term** | **Knowledge & Understanding** | | | **Literacy Skills**  **Opportunities for**  **developing**  **literacy skills** | **Employability Skills**  **[if any]** | **Assessment Opportunities** |
| **Composites** | **Components**  **[KEY concepts & subject specific vocab]** | **Formal Retrieval**  **[if any]** |
| **HT1** | C1  Atomic structure and the periodic table | * Separation Techniques * Atomic Model * The development of the Periodic table * Group 1,7,0 | Do Now Task-  Particles (Year 7. Particles)  Atoms, Elements and Compounds (Year 8. Periodic table and materials)  MCQ’s | Write a method  Write a conclusion  Use of Scientific language and practice keywords  Comprehension/Extended reading  Extract key points from texts | Teamwork  Problem solving  Practical applications  Lab Technician | Formatives  Summative  Mock Exams (GCSE Paper 1) |
| **HT1/2** | P1  Energy | * Energy stores and conservation of energy * Energy transfers – work done, kinetic, gravitational potential, and elastic * Energy dissipation and efficiency * Energy, power and electrical appliances * Conduction * IR radiation * Specific heat capacity * Insulation * Energy demands * Renewable energy resources * Non-renewable energy resources * Energy issues | Do Now Task-  Energy (Year 7 Energy)  -MCQ’s | Write a method  Write a conclusion  Use of Scientific language and practice keywords  Comprehension/Extended reading  Extract key points from texts  Identify and construct questions  Propose predictions  Plan experiments  Record and analyse data  Communicate information and ideas | Logical workings  Problem solving  Analytical skills  Teamwork  Problem solving  Practical applications  Engineering | Formatives  Summative  Mock Exams (GCSE Paper 1) |
| **HT2** | B2  Organisation | * Enzymes and digestion * The heart and blood vessels * Non-communicable disease * Cancer * Plant transport | Do Now task-  Cells and movement of substances  (Year 7. Interdependence and cells)  Enzymes and what affects them, components of food, digestion and absorption (Year 8 Energy from food)  Cell transport, organ systems, cell transport (Year 10. B1)  MCQ’s | Oral  Writing  Write a method  Write a conclusion  Use of Scientific language and practice keywords  Extract key points from texts | Teamwork  Problem solving  Practical applications  Lab technician  Research Scientist  Phlebotomist  Plant biologist | Formatives  Summative  Mock Exams (GCSE Paper 1) |
| **HT2** | C2  Bonding, structures and properties of matter | * Ionic bonding and compounds * Covalent bonding and covalent structure * Metals and Alloys * Solids, Liquids and Gases | Do Now Task-  Particles (Year 7. Particles)  Atoms and the Periodic Table (Year 8 The periodic table and materials)  MCQ’s | Write a conclusion  Use of Scientific language and practice keywords  Comprehension/Extended reading  Extract key points from texts | Teamwork  Problem solving  Practical applications  Materials Scientist | Formatives  Summative  Mock Exams (GCSE Paper 1) |
| **HT2/3** | P2 Electricity | * Current, charge, potential difference and resistance * Component characteristics * Alternating current * Plugs and cables * Power and potential difference * Electrical currents and energy transfer * Appliances and efficiency * Series and parallel circuits | Do Now Task-  Electricity (Year 8 Electricity and magnetism)  MCQ’s | Write a method  Write a conclusion  Use of Scientific language and practice keywords  Comprehension/Extended reading  Extract key points from texts  Identify and construct questions  Propose predictions  Plan experiments  Record and analyse data  Communicate information and ideas | Logical workings  Problem solving  Analytical skills  Teamwork  Problem solving  Practical applications  Electrician | Formatives  Summative  Mock Exams (GCSE Paper 1) |
| **Year 10 Curriculum Overview [2023-2024]**  **Science – Combined Science** | | | | | | |
| **Spring**  **Term** | **Knowledge & Understanding** | | | **Literacy Skills**  **Opportunities for**  **developing**  **literacy skills** | **Employability Skills**  **[if any]** | **Assessment Opportunities** |
| **Composites** | **Components**  **[KEY concepts & subject specific vocab]** | **Formal Retrieval**  **[if any]** |
| **HT3/4** | B3 Infection and Response | * Communicable disease   Defence systems, vaccination and treatment of disease | Do Now task-  Cells  (Year 7 Interdependence and cells)  MCQ’s | Oral  Writing  Write a conclusion  Use of Scientific language and practice keywords  Comprehension/Extended reading  Extract key points from texts | Teamwork  Problem solving  Practical applications  Research Scientist  Phlebotomist  Pharmaceuticals  Plant biologist | Formatives  Summative  Mock Exams (GCSE Paper 1) |
| **HT4/5** | C3 Quantitative Chemistry | * Chemical reactions * HT only - Moles | Do Now Task-  Chemical reaction (Year 8 Chemical reactions and the environment)  MCQ’s | Write a method  Write a conclusion  Use of Scientific language and practice keywords  Extract key points from texts | Problem solving  Practical applications  Organic/Inorganic Chemist | Formatives  Summative  Mock Exams (GCSE Paper 1) |
| **Year 10 Curriculum Overview [2023-2024]**  **Science – Combined Science** | | | | | | |
| **Summer**  **Term** | **Knowledge & Understanding** | | | **Literacy Skills**  **Opportunities for**  **developing**  **literacy skills** | **Employability Skills**  **[if any]** | **Assessment Opportunities** |
| **Composites** | **Components**  **[KEY concepts & subject specific vocab]** | **Formal Retrieval**  **[if any]** |
| **HT5** | P3 Particle Model | * Density * States of matter * Changes of state * Internal energy * Specific heat capacity and specific latent heat | Do Now task- Particles (Year 7 Particles)  MCQ’s | Write a method  Write a conclusion  Use of Scientific language and practice keywords  Comprehension/Extended reading  Extract key points from texts  Identify and construct questions  Propose predictions  Plan experiments  Record and analyse data  Communicate information and ideas | Logical workings  Problem solving  Analytical skills  Teamwork  Problem solving  Practical applications  Research scientist | Formatives  Summative  Mock Exams (GCSE Paper 1) |
| **HT5/6** | B4  Bioenergetics | * Photosynthesis * Respiration * Metabolism | Do Now task- Plant transport, cells and movement of substances  (Year 7. Interdependence and cells)  MCQ’s | Oral  Writing  Write a method  Write a conclusion  Use of Scientific language and practice keywords  Extract key points from texts | Teamwork  Problem solving  Practical applications  Research Scientist  Sport scientist | Formatives  Summative  Mock Exams (GCSE Paper 1) |
| **HT6** | C4  Chemical Change | * Synthesis of Salts * Electrolysis | Do Now Task-  Chemical reactions (Year 8. Periodic table and materials)  MCQ | Write a method  Write a conclusion  Use of Scientific language and practice keywords  Comprehension/Extended reading  Extract key points from texts | Teamwork  Problem solving  Practical applications  Organic/Inorganic Chemist  Chemical Engineer  Lab Technician  Chemical Analyst | Formatives  Summative  Mock Exams (GCSE Paper 1) |