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| **Year 9 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** | BU1 Cell Biology | * Cell structure and differentiation – eukaryotes and prokaryotes
* Specialised cells
* Cell transport – diffusion, osmosis and active transport
* Cell division and cells
 | Do Now (7Interdependence and Cells): Structure and function of animal and plant cells, microscope and diffusion MCQ’s | OralWritingWrite a methodUse of Scientific language and practice keywordsComprehension/Extended readingExtract key points from texts | TeamworkProblem solvingPractical applicationsZoologistEcologistLab technicianResearch scientist | FormativeSummativeMock Exams  |
| **HT2** | CU1 Atomic structure and the periodic table  | * Separation Techniques
* Atomic Model
* The development of the Periodic table
* Group 1,7,0
 | Do Now (8Periodic Table and Materials and 8Chemical reactions)Reactivity (9CR)MCQ’s | Write a methodWrite a conclusionUse of Scientific language and practice keywordsComprehension/Extended readingExtract key points from texts | TeamworkProblem solvingPractical applicationsLab Technician | FormativeSummativeMock Exams  |
| **Year 9 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** | PU1 Conservation and Dissipation of Energy Energy Transfer by HeatingEnergy Resources | * 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 (7Energy)MCQ’s | Write a methodWrite a conclusionUse of Scientific language and practice keywordsComprehension/Extended readingExtract key points from texts Identify and construct questionsPropose predictionsPlan experimentsRecord and analyse dataCommunicate information and ideas | Logical workingsProblem solvingAnalytical skillsTeamworkProblem solvingPractical applicationsEngineering   | FormativeSummativeMock Exams (GCSE Paper 1) |
| **HT4/5** | BU2 Organisation | * Enzymes and digestion
* The heart and blood vessels
* Non-communicable disease
* Cancer
* Plant transport
 | Do Now Now7(Interdependence and Cells and 8(Energy from Foods and 8Keeping Healthy)MCQ’s  | OralWritingWrite a methodWrite a conclusionUse of Scientific language and practice keywordsExtract key points from texts | TeamworkProblem solvingPractical applicationsLab technicianResearch ScientistPhlebotomistPlant biologist | FormativeSummative |
| **Year 9 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** | CU2 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(8Periodic Table and Materials and 8Chemical reactions)MCQ’s  | Write a conclusionUse of Scientific language and practice keywordsComprehension/Extended readingExtract key points from texts | TeamworkProblem solvingPractical applicationsMaterials Scientist | F FormativeSummative |
| **HT5/6** | PU2 Electric CircuitsPU2 Electricity in the Home | * 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 (8Electricity and Magnets)MCQ’s | Write a methodWrite a conclusionUse of Scientific language and practice keywordsComprehension/Extended readingExtract key points from texts Identify and construct questionsPropose predictionsPlan experimentsRecord and analyse dataCommunicate information and ideas | Logical workingsProblem solvingAnalytical skillsTeamworkProblem solvingPractical applicationsElectrician | FormativeSummativeMock Exams (GCSE Paper 1) |