**Science - Curriculum Map Year 9**

|  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- |
| Y9 | Half  term 1 | Half  term 2 | Half  term 3 | Half  term 4 | Half  term 5 | Half  term 6 |
| Topics | Variation & inheritance,  Evolution,  Reactions. | Reactions,  Importance of plants. | Earth & it’s resources. | Science project,  Atomic structure (C1a). | Cell structure & transport (B1a). | Conservation of energy (P1a). |
| Key terms | Variation, genetic inheritance, DNA, characteristics, genes, mutations.  Adaptations, predator vs. prey, evolution, natural selection, extinction, endangered species.  Chemical reactions, chemical formula, thermal decomposition, combustion, acids, alkalis & indicators, neutralisation, reactivity series, displacement reactions, exothermic & endothermic reactions, catalysts. | Chemical reactions, chemical formula, thermal decomposition, combustion, acids, alkalis & indicators, neutralisation, reactivity series, displacement reactions, exothermic & endothermic reactions, catalysts.  Photosynthesis, leaf structure, factors affecting photosynthesis, food chains & food webs, plant reproduction, pollination, bioaccumulation, respiration. | Human population, The Earth’s resources, energy demands, biofuels & nuclear, wind & hydroelectric, solar & geothermal, energy issues, feeding relationships, carbon cycle, water safe to drink, wastewater, recycling, extracting metals, life cycle assessments, land & water pollution, air pollution, deforestation & peat destruction, global warming, maintaining biodiversity. | Atoms, chemical reactions, separating mixtures, distillation, chromatography, history of the atom, structure of the atom, electronic structures, ions, atoms & isotopes. | Cell structure, microscopes, plant & animal cells, eukaryotic & prokaryotic cells, specialisation in animal & plant cells, diffusion, osmosis, active transport, exchanging materials. | Changes in energy stores, conservation of energy, energy & work, gravitational potential energy stores, kinetic & elastic energy stores, energy dissipation, energy & efficiency, electrical appliances, energy & power. |
| Assessment | N/A | Assessment 1 – written paper on recent topics followed by classroom DIRT. | Assessment 2 – written paper on recent topics followed by classroom DIRT. | N/A | Assessment 3 – written paper on recent topics followed by classroom DIRT. | N/A |
| Embedding learning | How science works 1,  How science works 2,  How science works 3,  Variation 1,  Variation 2,  Evolution 1,  Assessment based. | Evolution 2,  Reactions 1,  Reactions 2,  Reactions 3,  Cells 1,  Electricity 1,  Matter 1. | Plants 1,  Plants 2,  Earth & it’s resources 1,  Assessment based,  Earth & it’s resources 2,  Earth & it’s resources 3. | Earth & it’s resources 4,  Atoms 1,  Atoms 2,  Cells 2,  Electricity 2,  Matter 2. | Earth & universe 1,  Movement & breathing 1,  Assessment based,  Movement & breathing 2,  Pressure 1,  Climate change 1. | C1a,  C1a,  B1a,  B1a,  P1a,  P1a. |
| Awareness days | Recycle week 20/9, National Poetry Day 7/10,  Black History Month. | World Kindness Day 13/11,  Pride in STEM Day 18/11,  No pen day. | Holocaust Memorial Day 27/1,  Mental Health Awareness week 7/2. | World Book Day 23/4, International Women’s Day 8/3, British Science week 11/3. |  | World Environment Day 5/6. |