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| **Year 7/8 Subject Science** | | | |
| Intent | The science curriculum is developed to enlighten students and provide them with a rich knowledge of the world around them.  At key stage3, students will learn about the natural world and will begin to develop critical thinking about scientific principles and facts. They will learn to make links across the three disciplines of Physics, Chemistry and Biology, while developing and deepening their vocabulary in science. Students will explore how science works through practical activities, observations and through modelling scientific concepts. Students will embark on developing ideas and explanation for abstract concepts as well as developing reasonable explanation for unfamiliar context as they learn about the world they live in, in relation to life form, matter and energy.  . | | |
| Implement | **September - December** | **January - March** | **April-July** |
| Physics-Waves  **Wave effects:**  Sound waves, water wave sand energy  Radiation and energy  **Waves properties:**  Modelling waves  Physics-Forces  **Contact forces:**  Friction and drag  Squashing and stretching  Turning forces  **Pressure:**  Pressure in gas  Pressure in liquid  Stress on solids  Chemistry-Matter  Atoms, elements, and compound  Chemical formulae  Polymer  Chemistry-The Periodic Table  The elements of group 1  The elements of group 7  The elements of group 0  Biology-Breathing  Gas exchange  Breathing  Drugs  Alcohol  Smoking    Biology-Digestion  Nutrition  Food test  Unhealthy diet  Digestive system  Bacteria and enzymes in digestion  Physics- Electromagnetics  Magnets and magnetic fields  Electromagnets  Using electromagnets | Chemistry- Earth  **Climate:**  Global warming  Carbon cycle  Climate change  **Earth resources:**  Extracting metals  Recycling  Chemistry- Reaction  **Types of reaction:**  Atoms in chemical reactions  Combustion  Thermal decomposition  Conservation of mass  **Chemical energy:**  Exothermic and endo thermic  Energy level diagrams  Bond energy | Biology -Ecosystem  **Respiration:**  Aerobic respiration  Anaerobic respiration  Biotechnology  **Photosynthesis:**  Leaves investigating photosynthesis  Plant minerals  Physics- Energy  Work energy and machine  **Heating and cooling:**  Energy and temperature  Energy transfer-particles  Energy transfer-radiation and insulation  Biology-Genes  **Evolution:**  Natural selection  Charles Darwin  **Extinction**  Preserving biodiversity  Inheritance  DNA  Genetics  Genetic modification |
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| Impact | ***AP1***  ***End Autumn 2***  ***Diagnostic Assessment*** | ***AP2***  ***End Spring 1***  ***Diagnostic Assessment*** | ***AP3***  ***End Summer 1***  ***Diagnostic Assessment*** |