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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 energyRadiation and energy**Waves properties:**Modelling wavesPhysics-Forces**Contact forces:**Friction and dragSquashing and stretching Turning forces**Pressure:**Pressure in gas Pressure in liquidStress on solidsChemistry-MatterAtoms, elements, and compoundChemical formulaePolymerChemistry-The Periodic Table The elements of group 1The elements of group 7 The elements of group 0Biology-BreathingGas exchange BreathingDrugs Alcohol Smoking Biology-Digestion NutritionFood testUnhealthy dietDigestive system Bacteria and enzymes in digestionPhysics- ElectromagneticsMagnets and magnetic fieldsElectromagnetsUsing electromagnets | Chemistry- Earth **Climate:**Global warming Carbon cycleClimate change**Earth resources:**Extracting metalsRecyclingChemistry- Reaction**Types of reaction:**Atoms in chemical reactionsCombustion Thermal decompositionConservation of mass**Chemical energy:**Exothermic and endo thermic Energy level diagramsBond energy | Biology -Ecosystem **Respiration:**Aerobic respiration Anaerobic respirationBiotechnology**Photosynthesis:**Leaves investigating photosynthesisPlant mineralsPhysics- EnergyWork energy and machine**Heating and cooling:**Energy and temperatureEnergy transfer-particlesEnergy transfer-radiation and insulationBiology-Genes**Evolution:**Natural selectionCharles Darwin **Extinction**Preserving biodiversityInheritanceDNAGeneticsGenetic modification |
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| Impact | ***AP1******End Autumn 2******Diagnostic Assessment***  | ***AP2******End Spring 1******Diagnostic Assessment*** | ***AP3******End Summer 1*** ***Diagnostic Assessment*** |