

## Key Stage 3 - Science

	Topic / Objectives	Knowledge taught	Big picture links	Keywords	Key Skills
Autumn Term 1 <sup>st</sup> Half-term	B3.3 DNA, Blood typing and pathology C3.3 Chemical reactions & separation techniques	Microscopes Fingerprints Blood typing Time of death & Pathology Filtration, pH scales ,Chromatography and reactivity series	English- Dracula Geography- Urbanisation History- Women in 19 <sup>th</sup> Century PSHE- personal safety Art & DT- Mexican/ Lamp project	forensic science, fingerprinting, rigor mortis, pathologist, magnification, resolution, filtration, chromatography, universal indicator, biodegradable	
Autumn Term 2 <sup>nd</sup> Half-Term	B3.1 Genetics, variation & evolution P3.2 The universe and Radioactivity	Performing a genetic cross Inheriting characteristics and disorders from parents How bread, cheese, yoghurt and wine are made Use of enzymes in industry Discovering the universe/ theories NASA, satellites & spaceships Mission to the moon (Apollo 11 & 13) Radioactivity & Marie Curie Electromagnets & Michael Faraday	English- Night John Geo- War & Conflict His- Pre colonial Africa Art- African art & Cubism PSHE- Diversity & Prejudice	alleles, punnet square, reproduction, fermentation, denatured, geocentric, heliocentric, retrograde, radioactivity, electromagnet	
Spring Term 1 <sup>st</sup> Half-Term	B3.2 Preventing and treating disease C3.2 Periodic table and fossils	Prevention and cures of diseases (vaccinations and antibiotics) Discovery of DNA and the genome Darwin & preventing extinction Atoms & The Periodic Table Fossils and how old layers of rock are	Eng- Stone cold (homelessness) Geo- Population Dynamics His- Migration Art & DT- Favellas & Clocks project PSHE- tolerance/ friendship/ against bullying	immunisation, vaccine, pathogen, mutation, peer review, extinction, atoms, periodic table, fossils, strata, primate	

Spring Term 2 <sup>nd</sup> Half-Term	P3.1 Electromagnetic waves & Component characteristics P3.3 Communication	Sending and receiving messages Uses of electrical components in the home and in hospitals Uses of technology in sports Refracting & reflecting telescopes SETI Use of GPS AM & FM radios	Eng- Jaws creative writing Geo- rivers or tourism His- Propaganda Art & DT- pop art CAD CAM project PSHE- fake news/ media influence	analogue, digital, binary, thermistor, nuclear fusion, projectile motion, reaction time, ultrasound, telescope, modulation, diffraction	
Summer Term 1 <sup>st</sup> Half-Term	C3.1 Nanoparticles & Cars	Uses of nanoparticles Petrol, electric and hybrid cars (uses, pros and cons)	Eng- non-fiction environment based Geo- Global warming PSHE- sustainable living & the future DT- sustainability project	nanoparticles, nanomedicine, hydrocarbons, particulates, renewable, biofuels, hybrid	
Summer Term 2 <sup>nd</sup> Half-Term	Revision & Prep for end of year exams	Maths Skills Literacy skills- emphasis on 6 mark questions so students can communicate ideas clearly Working Scientifically- going over practical work and understanding what it means to carry out scientific investigations	Eng- Holes Geo- natural disasters Art & DT- surrealism & sustainability project PSHE- human rights, tolerance		