Science Learning Journey Our aim is to develop our student's core body of scientific knowledge, hone their skills of scientific enquiry and help them to more fully understand the world and their place in it. This will provide them with the key skills and knowledge, enabling them to successfully progress onto the next stage of their education and into their working lives. **Understanding and Applying Scientific Skills** Describing effects of Writing methods Planning Developing invisible phenomena investigations Understanding variables respect for our Considering Modelling scientific world Predict and solve implication and problems with applications of Drawing graphs and analysing mathematics Drawing scientific knowledge graphical data conclusions What is natural A level Sciences – Biology, How have we How can we What selection? **Chemistry and Physics** What is measure the rate pollutes our How do you (Need level 6 in Science What is the momentum? of a reaction? atmosphere? make potable Is the universe and level 6 in maths) structure of getting bigger? water? DNA? How can we Variation & represent Reproduction forces? & Evolution resources evolution What is a life Other post 16 options Why do – BTEC science. You cvcle species Has the What is will need level 5 in assessment? atmosphere always genetic 1 Mole Can some How do we inherit Science How do stars extinct? engineering? our characteristics? reactions be been the same? evolve? reversed? How does the nervous system work? What is half-life Is mass What are the 6.02×10^{23} uses of the and radioactive conserved? What is a electromagnetic mole? How is an ecosystem What do spectrum? organised? hormones do? YEAR How does exercise affect respiration? What is Can you wire a What are the Fleming's Left How can you How are animals plug? Hand Rule? make an factors affecting adapted? photosynthesis? electromagnet What is a stronger? What is fractional What is distillation? How can we electrolysis? How make things does the vaccinations What is How many How do we get faster? digestive What does a work? different forms power? cancer and CHD? system reaction profile can carbon take? work? YEAR What are What are the hydrocarbons different types used for? What are the How do we What are What is the of ionising What is How do make sure different What is exothermic and radiation? difference between things specific heat medicines work types of endothermic speed and velocity? capacity? move in and are safe? reactions? plants? What is an How does atom and (•) current and PD isotopes? What is a change change in How is **•** What are What is the (of state? $\odot \odot$ circuits? acids and structure of stored and How do cells how do they an atom? transferred? divide? react? YEAR How does the Cell circulatory system Basic chemica of atoms transport biology reacions How are cells How are current * How can we resources do specialised? and resistance we use? calculate substances linked? chromatography What are the patterns of density? (6°) Α get into used for? What is How does the periodic table? What is and out of evolution DNA? Evolution pressure? a cell? occur? How do we What is a How do make a What is represent magnet? temperature? How do motion? Why is produce we digest What are What causes pressure we hear? food? metals? pollution? food? higher under water? Periodic **Bioenergetics** reactions atmosphere table systems cooling What is in the What is a Is your eye How do How do Solar How is heat Which like a our lungs magnetic field? transferred? System? atoms join metals are How has camera? work? How do we get Why does together? the most energy from bread rise? atmosphere our food? Why do we changed? have seasons? What is the Can you How do we keep How do difference make an E) get ill? **Microbes** safe in How can you indicator? animals between a you reproduce? separate the lab? labrador and a reduce What do our How do we How do we make mixtures? friction? poodle? cells do? predictions? protect YEAR ourselves from SCIENCE Reproduction Energy Ecology CELLS Circuits forces **PROFICIENCY** separation What energy What type of How do How is energy resources do we use? substances How does a car How can we circuit do plants transferred are acidic? Which release energy observe cells? Christmas lights reproduce? How can equipment How is energy What is we should we stored and everything represent transferred? made of? results?