Year 10 Curriculum Grid – 1 or 2 teachers

Combined Science

Year/Term	Unit	Intent
Curriculum purpose		• Ensure students have a secure understanding of the key concepts of Biology, Chemistry and Physics building on knowledge from KS3. • Encourage students to carry out practical work safely with increasing independent skills. • Enthuse students with a love of the Sciences by incorporating a holistic approach and relating concepts to actions and behaviours.
Autumn	**CB5 –** Health, disease and the development of medicines	• Describe the difference between communicable and non-communicable diseases • Explain how pathogens are spread and how this spread can be reduced or prevented • Explain the role of the specific immune system of the human body
	CC8 - Acids	• Describe the use of hazard symbols on containers • Describe a neutralisation reaction
	CP6 – Radioactivity	• Describe and compare the three forms of nuclear radiation • Develop knowledge of the history of radiation • Describe uses and dangers of radioactivity
	CB6 – Plant structures and their functions	• Explain how a plant is adapted for photosynthesis and gas exchange • Explain the effect of limiting factors on the rate of photosynthesis
Spring	**CC9 -** Calculations involving masses **CC10 -** Electrolytic processes **CC11 -** Obtaining and using metals **CC12 -** Reversible reactions and equilibria	• Calculate masses of reactants and products from balanced equations • Describe electrolysis as a process in which electrical energy, from a direct current supply, decomposes electrolytes. • Explain the reactivity series of metals and relate it to metal extraction • Explain displacement reactions as redox reactions • Evaluate the advantages of recycling metals • Explain what is meant by dynamic equilibrium
	CP7 – Energy – forces doing work **CP8 –** Forces and their effects	• Describe, with examples, how objects can interact • Use vector diagrams and free body force diagrams
	CB7 – Animal coordination, control and homeostasis	• Describe where hormones are produced and transported • Evaluate hormonal and barrier methods of contraception • Describe the stages of the menstrual cycle including the roles of the hormones involved • Explain how the hormones control blood glucose concentration • Explain the cause and control of type 1 and type 2 diabetes
Summer	**CP9 –** Electricity and circuits	• Draw and use electric circuit diagrams • Use and understand the key terms associated with electricity • Describe how energy is transferred in different domestic devices
	CB1-CB7 revision **CC1-CC12** revision **CP1-CP9** revision	• Practise examination technique and time management • Revisit core practicals and assess understanding