Year 11 Six Week Plan paper 1 & Paper 2
Subject: Biology

	Paper 1 Key areas of focus for **independent learning**	Paper 1 Key areas of focus for **extending your learning**	Paper 2 Key areas of focus for **independent learning.**	Paper 2 Key areas of focus for **extending your learning.**
1	**Cell biology** Diffusion Osmosis (include required practical) Active transport Exchange surfaces Exchanging substances Types of cells (eukaryotes and prokaryotes) Microscopy and magnification (include required practical) Cell differentiation and specialisation Chromosomes and mitosis Stem cells	Use GCSE Pod to answer questions on the topic of Cell Biology. https://www.bbc.co.uk/bitesize/topics/z2mttv4 Revision guide: H&F: 11-22	**Ecology** Competition, biotic&abiotic factors Adaptations Food chains Sampling techniques (required practical) The water and carbon cycle Biodiversity and pollution Global warming and deforestation Biodiversity and waste management	Use GCSE Pod to answer questions on the topic of ecology https://www.bbc.co.uk/bitesize/guides/z86qpbk/revision/1 https://www.bbc.co.uk/bitesize/guides/zqskv9q/revision/1 Revision guide F&H: 83-94
2	**Animal Organisation** Respiratory system Cardiovascular system Cardiovascular disease Health and risk factors Cancer Cell organisation in animals Enzymes (including required practical) Food tests (including required practical) Digestive system	Use GCSE Pod to answer questions on the topic of Animal Organisation. https://www.bbc.co.uk/bitesize/topics/zwj22nb Revision guide: F: 24-32 H:24-38	**Cell division and reproduction** DNA Sexual and asexual reproduction meiosis **https://www.bbc.co.uk/bitesize/guides/zycmk2p/revision/1** **https://www.bbc.co.uk/bitesize/guides/zcdfmsg/revision/1** revision guide: F: 66-68 H: 68-70	Use GCSE Pod to answer questions on the topic of **Cell division and reproduction** **https://www.bbc.co.uk/bitesize/guides/zycmk2p/revision/1** **https://www.bbc.co.uk/bitesize/guides/zcdfmsg/revision/1** revision guide: F: 66-68 H: 68-70
3	**Plant Organisation** Cell organisation in plants Transport systems in plants Evaporation and transpiration Factors affecting transpiration Revision guide: F: 38-41 H: 39-41	Use GCSE Pod to answer questions on the topic of Plant Organisation. https://www.bbc.co.uk/bitesize/topics/zwj22nb Revision guide: F: 38-41 H: 39-41	**Variation and inheritance** Inheritance of sex Genetic inheritance Genetic diagrams Inherited disorders Embryo screening	Use GCSE Pod to answer questions on the topic of variation and inheritance https://www.bbc.co.uk/bitesize/guides/zycmk2p/revision/1 https://www.bbc.co.uk/bitesize/guides/zsswqdm/revision/1 Revision guide: F: 69-72 H: 71-74
4	**Infection and Response** Pathogens and disease (viral, bacterial, fungi and protists) Preventing infections Human defence responses https://www.bbc.co.uk/bitesize/guides/zcqs2nb/revision/1 https://www.bbc.co.uk/bitesize/topics/z9kww6f Revision guide: F: 42-49 H: 43-49	Use GCSE Pod to answer questions on the topic of Infection and Response.	**Evolution** Theory of evolution Natural selection Fossils Classification Antibiotic resistant bacteria Selective breeding Genetic engineering	Use GCSE Pod to answer questions on the topic of evolution https://www.bbc.co.uk/bitesize/guides/zycmk2p/revision/1 https://www.bbc.co.uk/bitesize/guides/zsswqdm/revision/1 Revision guide: F: 69-72 H: 71-74
5	**Non communicable diseases** Non communicable diseases Cancer Coronary heart disease Risk factors Smoking, alcohol and other carcinogens	Use GCSE Pod to answer questions on the topic of Non communicable diseases. https://www.bbc.co.uk/bitesize/guides/zcqs2nb/revision/1 https://www.bbc.co.uk/bitesize/topics/z9kww6f Revision guide: F: 42-49 H: 43-49	**The nervous system** Homeostasis The nervous system Reaction times (required practical)	Use GCSE Pod to answer questions on the topic of **The nervous system** https://www.bbc.co.uk/bitesize/guides/z2374qt/revision/1 Revision guide: F: 57- 60 H: 58-61
6	**Bioenergetics** Photosynthesis Rate of photosynthesis (including required practical) How plants use glucose Limiting factors in photosynthesis ***(Higher only)*** Metabolism **(& the liver Higher only)** Aerobic and anaerobic respiration Response to exercise	Use GCSE Pod to answer questions on the topic of Bioenergetics. https://www.bbc.co.uk/bitesize/guides/zs4mk2p/revision/1 https://www.bbc.co.uk/bitesize/guides/zp4mk2p/revision/1 Revision guide: F: 50-55 H: 50-56 50-56	**The endocrine system** Hormones Controlling blood glucose The menstrual cycle Controlling fertility IVF (HT only) Adrenaline and thyroxine (HT only)	Use GCSE Pod to answer questions on the topic of **The endocrine system** https://www.bbc.co.uk/bitesize/guides/zq4mk2p/revision/1 https://www.bbc.co.uk/bitesize/guides/zt2vxfr/revision/1 Revision guide: F: 61-65 H: 62-65

Year 11 Six Week Plan paper 1 & Paper 2
Subject: Chemistry

	Paper 1 Key areas of focus for **independent learning**	Paper 1 Key areas of focus for **extending your learning**	Paper 2 Key areas of focus for **independent learning.**	Paper 2 Key areas of focus for **extending your learning.**
1	**Atomic structure and the periodic table** Atoms, elements and compounds Chemical equations Mixtures, chromatography and separating techniques (including required practical) History of the atom Electronic structure, ions, atoms and isotopes Development of the periodic table and the modern periodic table Metals and non-metals Group 1, 7 and 0 elements	Use GCSE Pod to answer questions on the topic of Atomic structure and the periodic table. https://www.bbc.co.uk/bitesize/topics/zcckk2p https://www.bbc.co.uk/bitesize/topics/zcckk2p Revision guide: F:96-111 H:96-110	**Rates of chemical change** Rates of reaction Factors affecting rates of reaction Measuring rates of reaction – colour change, mass, gas(include required practical) Two rates experiments - collecting gas and precipitate(include required practical)	Use GCSE Pod to answer questions on the topic of rates of chemical change – rates if reaction https://www.bbc.co.uk/bitesize/guides/zpkp7p3/revision/1 Revision guide: F: 138-141 H: 142-145
2	**Structure and bonding** Formation of ions Ionic bonding and ionic compounds Covalent bonding with simple molecules Giant covalent structures Fullerenes and graphene Metallic bonding States of matter and changing state	Use GCSE Pod to answer questions on the topic of Structure and bonding. https://www.bbc.co.uk/bitesize/topics/z33rwx Revision guide: F:113-122 H:112-121	**Extent of chemical change** Finding reaction rates from graphs Drawing tangents (HT only) Reversible reactions equilibrium Le Chatelier's principle (HT only)	Use GCSE Pod to answer questions on the topic of chemical changes – reversible reactions and for HT Le Chatelier's principle, also practice drawing tangents on graphs https://www.bbc.co.uk/bitesize/guides/z32bpbk/revision/1 Revision guide; F: 142-144 H 146–148
3	**Chemical calculations** Relative formula mass The mole **(higher only)** Conservation of mass Limiting reactants **(higher only)** Concentrations in solutions Write balanced half equations and ionic equations	Use GCSE Pod to answer questions on the topic of Chemical calculations. https://www.bbc.co.uk/bitesize/topics/zsnyy4j Revision guide: F: 123- 126 H:123-128	**Organic chemistry** Hydrocarbons Fractional distillation Crude oil uses cracking	Use GCSE Pod to answer questions on the topic of organic chemistry https://www.bbc.co.uk/bitesize/guides/zxd4y4j/revision/1 Revision guide: F: 146-149 H: 150-152
4	**Chemical changes** Acids and bases with strong acids and weak acids Reactions of acids **(including the required practical)** Reactivity series and displacement reactions Separating metals and metal oxides Making salts from metals and insoluble bases Redox reactions **(higher only)** Neutralisation and the pH scale	Use GCSE Pod to answer questions on the topic of Chemical changes. https://www.bbc.co.uk/bitesize/topics/zsnyy4j Revision guide: F: 123- 126 H:123-128	**Chemical analysis** Purity and formulations Paper chromatography (include required practical) Calculating Rf values Tests for gases	Use GCSE Pod to answer questions on the topic of chemical analysis https://www.bbc.co.uk/bitesize/guides/zp2wrwx/revision/1 Revision guide: F:150-153 H:153-155
5	**Electrolysis** Electrolysis **(including the required practical)** Half equations at the electrodes **(higher only)** Electrolysis of aqueous solutions **(higher only)** Extraction of aluminium	Use GCSE Pod to answer questions on the topic of Electrolysis. https://www.bbc.co.uk/bitesize/guides/z9h9v9a/revision/1 Revision guide: F: 132-133 H:135-136	**Chemistry of the atmosphere** The evolution of the atmosphere Greenhouse gases and climate change Carbon footprints	Use GCSE Pod to answer questions on the topic of cchemistry of the atmosphere https://www.bbc.co.uk/bitesize/guides/z9pk3k7/revision/1 https://www.bbc.co.uk/bitesize/guides/za3797h/revision/1 Revision guide: F:155-157 H: 157-160
6	**Energy changes** Exothermic and endothermic reactions **(required practical)** energy transfers from reactions Bond energies **(higher only)** Reaction profiles	Use GCSE Pod to answer questions on the topic of Energy changes. https://www.bbc.co.uk/bitesize/guides/z9h9v9a/revision/1 Revision guide: F: 132-133 H:135-136	**Using resources** Finite and infinite resources Reuse and recycling Life cycle assessments Potable water Waste water treatment	Use GCSE Pod to answer questions on the topic of using resources https://www.bbc.co.uk/bitesize/guides/zswfxfr/revision/1 https://www.bbc.co.uk/bitesize/guides/zq6cfcw/revision/1 https://www.bbc.co.uk/bitesize/guides/zwvq4qt/revision/1 Revision guide: F: 159-165 H:161 - 165

Year 11 Six Week Plan paper 1 & Paper 2
Subject: Physics

	Paper 1 Key areas of focus for **independent learning**	Paper 1 Key areas of focus for **extending your learning**	Paper 2 Key areas of focus for **independent learning.**	Paper 2 Key areas of focus for **extending your learning.**
1	**Energy stores** Changes in energy stores Conservation of energy Energy and work Types of energy stores Energy and power energy and efficiency **(Higher only increasing efficiency)** Conduction Radiation Specific heat capacity (include required practical) Heating and insulating buildings	Use GCSE Pod to answer questions on the topic of Energy stores. https://www.bbc.co.uk/bitesize/guHides/zskp7p3/revision/1 Revision guide: F: 167-172 H:167 – 174	**Forces** Contact &non contact Weight, mass,gravity Resultant forces & work done Calculating forces Forces and elasticity Investigating springs (include required practical)	Use GCSE Pod to answer questions on the topic of forces https://www.bbc.co.uk/bitesize/guides/zcxcfcw/revision/1 https://www.bbc.co.uk/bitesize/guides/z232k2p/revision/1 Revision guide: F:203-207 H:201 – 206
2	**Energy resources** Energy demands Energy from wind and water Energy and the environment Energy issues	Use GCSE Pod to answer questions on the topic of Energy resources. https://www.bbc.co.uk/bitesizetran/topics/z89ddxs Revision guide: F:173-177 H:175 -179	**Forces and motion** Distance, speed, velocity, displacement Acceleration Distance-time graphs Velocity-time graphs Terminal velocity	Use GCSE Pod to answer questions on the topic of forces and motion https://www.bbc.co.uk/bitesize/guides/z2wy6vc/revision/1 Revision guide: :208-211 H:207 – 210
3	**Electricity** Current and charge Potential difference and resistance (include required practical) Series and parallel circuits Component characteristics (include required practical)	Use GCSE Pod to answer questions on the topic of Electricity. https://www.bbc.co.uk/bitesize/topics/zcg44qt Revision Guide: F:180-187 H 179-185	**Forces and Newton's laws** Newton's first and second laws Inertia Newton's third law Investigating motion (include required practical) Stopping distances Reaction times Momentum **(HT ONLY)**	Use GCSE Pod to answer questions on the topic of forces and Newton's laws https://www.bbc.co.uk/bitesize/guides/zqv797h/revision/1 HT ONLY https://www.bbc.co.uk/bitesize/guides/zc9bv9q/revision/1 Revision guide: F:212-217 H:211 – 216
4	**Electricity in the home** Alternating current Cables and plugs Electrical power and potential difference Electrical currents and energy transfer Appliances and efficiency National Grid	Use GCSE Pod to answer questions on the topic of Electricity in the home. https://www.bbc.co.uk/bitesize/topics/zcg44qt Revision guide: F:188-191 H:186-189	**Waves and properties** Transverse &longditudinal waves Wave experiments: Ocilloscope, ripple tank (include required practical), waves on string Wave behaviour refraction	Use GCSE Pod to answer questions on the topic of waves and properties . https://www.bbc.co.uk/bitesize/guides/z3yq4qt/revision/1 https://www.bbc.co.uk/bitesize/guides/zwkn2nb/revision/1 Revision guide: F:219-222 H:18 – 221
5	**Particle model of matter** Density (include required practical) States of matter and changes of state Internal energy Specific latent heat Gas pressure and temperature	Use GCSE Pod to answer questions on the topic of Particle model of matter. https://www.bbc.co.uk/bitesize/topics/zshssrd Revision guide: F:193-196 H:191-194	**Types of waves** Radio waves EM waves and their uses Investigating infrared radiation (include required practical) Dangers of EM waves	Use GCSE Pod to answer questions on the topic of types of waves https://www.bbc.co.uk/bitesize/guides/ztpm7p3/revision/1 Revision guide: F:223-228 H 222 – 226
6	**Atomic structure (Radioactivity)** Atoms and radiation The nucleus Types of radiation Half life Calculating decline in radioactivity (**higher only)** 9	Use GCSE Pod to answer questions on the topic of atomic structure (radioactivity) https://www.bbc.co.uk/bitesize/guides/zpkbv9q/revision/1 Revision Guide: F: 197- 201 H:195-199	**Magnetism and electromagnetism** Permanent and induced magnets Electromagnetism The motor effect Electric motors	Use GCSE Pod to answer questions on the topic of magnetism and electromagnetism https://www.bbc.co.uk/bitesize/guides/zpt9v9q/revision/1 https://www.bbc.co.uk/bitesize/guides/zg43y4j/revision/1 Revision guide: F:229-230 H:227-230