Year 11 Six Week Plan
Subject: GCSE Separate Biology

	Key areas of focus in **lessons.**	Key areas of focus in **Academic Enrichment.**	Key areas of focus for **homework.**	Key areas of focus for **independent learning.**
1	**Retrieval Questions from Cell Biology** Methods of transport (diffusion, Osmosis, Active transport) Types of cells (eukaryotes and prokaryotes) Cell differentiation & specialisation Chromosomes and mitosis Stem cells Culturing microorganisms	Required practical the light microscope Y Band	https://www.bbc.co.uk/bitesize/guides/z84jtv4/revision/1 https://www.bbc.co.uk/bitesize/guides/zs8y4qt/revision/1 https://www.bbc.co.uk/bitesize/guides/zc7k2nb/revision/1 Revision guide: 11-25	**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 Culturing microorganisms
2	**Retrieval questions from animal Organisation** Respiratory system Cardiovascular system Cardiovascular disease Cell organisation in animals Enzymes (including required practical) Food tests (including required practical) Digestive system	Required practical the light microscope X band	https://www.bbc.co.uk/bitesize/guides/zyptv9q/revision/1 https://www.bbc.co.uk/bitesize/guides/zcttv9q/revision/1 https://www.bbc.co.uk/bitesize/guides/zqnsrwx/revision/1 Revision guide: 27-38	**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
3	**Retrieval questions from plant Organisation** Cell organisation in plants Transport systems in plants Evaporation and transpiration Factors affecting transpiration	Required practical Making Salts Y band	https://www.bbc.co.uk/bitesize/guides/zyk8msg/revision/1 Revision guide: 42-44	**Plant Organisation** Cell organisation in plants Transport systems in plants Evaporation and transpiration Factors affecting transpiration

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	Key areas of focus in **lessons.**	Key areas of focus in **Academic Enrichment.**	Key areas of focus for **homework.**	Key areas of focus for **independent learning.**
4	**Retrieval questions from communicable & non communicable diseases & preventing and treating disease** Pathogens 4 types, symptoms, and prevention /treatment of diseases Human defence responses Non communicable diseases Cancer Coronary heart disease Risk factors Smoking & alcohol	Required practical Making Salts X band	https://www.bbc.co.uk/bitesize/guides/zxr7ng8/revision/1 https://www.bbc.co.uk/bitesize/guides/z372ng8/revision/1 Revision guide: 38-41 & 46-48	**Infection and Response** Pathogens and disease (viral, bacterial, fungi and protists) Preventing infections Human defence responses Non communicable diseases Cancer Coronary heart disease Risk factors Smoking, alcohol and other carcinogens
5	**Retrieval questions from fighting disease, developing drugs, monoclonal antibodies & plant diseases** Vaccinations Developing drugs Monoclonal antibodies Plant diseases and defences	Required practical Specific heat capacity Y band	https://www.bbc.co.uk/bitesize/guides/z8fkmsg/revision/1 https://www.bbc.co.uk/bitesize/guides/zt8t3k7/revision/1 https://www.bbc.co.uk/bitesize/guides/z3tgw6f/revision/1 Revision guide: 49-55	**Infection and response** Vaccinations Developing drugs Monoclonal antibodies Plant diseases and defences
6	**Retrieval Question from Bioenergetics** Photosynthesis How plants use glucose Limiting factors in photosynthesis ***(Higher only)*** Metabolism Aerobic and anaerobic respiration Response to exercise	Required practical Specific heat capacity X band	https://www.bbc.co.uk/bitesize/guides/zg8nrwx/revision/1 https://www.bbc.co.uk/bitesize/guides/zcjy97h/revision/1 Revision guide: 57-63	**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

Year 11 Six Week Plan
Subject: GCSE Separate Chemistry

	Key areas of focus in **lessons.**	Key areas of focus in **Academic Enrichment.**	Key areas of focus for **homework.**	Key areas of focus for **independent learning.**
1	**Retrieval Questions from atomic structure and periodic table** Atoms, elements and compounds Mixtures, Electronic structure Metals and non-metals Group 1,7 and 0 Transition metals	Required practical the light microscope Y Band	https://www.bbc.co.uk/bitesize/guides/zg2h4qt/revision/1 https://www.bbc.co.uk/bitesize/guides/zpbkh39/revision/1 https://www.bbc.co.uk/bitesize/guides/z3sg2nb/revision/1 https://www.bbc.co.uk/bitesize/guides/zg923k7/revision/1 https://www.bbc.co.uk/bitesize/guides/zqwtcj6/revision/1 Revision guide: 12-26	**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 Transition metals
2	**Retrieval questions from structure and bonding** Formation of ions Ionic bonding Covalent bonding Giant covalent structures Metallic bonding States of matter and changing state Nanoparticles	Required practical the light microscope X band	https://www.bbc.co.uk/bitesize/guides/zyydng8/revision/1 https://www.bbc.co.uk/bitesize/guides/z9twsrd/revision/1 https://www.bbc.co.uk/bitesize/guides/z8db7p3/revision/1 https://www.bbc.co.uk/bitesize/guides/z8m8pbk/revision/1 Revision guide: 28-39	**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 Nanoparticles
3	**Retrieval questions from chemical calculations** Relative formula mass Conservation of mass Limiting reactants **(higher only)** Concentrations in solutions Atom economy Percentage yield	Required practical Making Salts Y band	https://www.bbc.co.uk/bitesize/guides/zgcyw6f/revision/1 https://www.bbc.co.uk/bitesize/guides/z3kg2nb/revision/1 https://www.bbc.co.uk/bitesize/guides/z8wkh39/revision/1 Revision guide: 41-49	**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 Atom economy Percentage yield

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4	**Retrieval questions from chemical changes** Acids and bases Reactions of acids Reactivity series and displacement reactions Separating metals and metal oxides Redox reactions **(higher only)** Neutralisation and the pH scale Titrations	Required practical Making Salts X band	https://www.bbc.co.uk/bitesize/guides/zsm7v9q/revision/1 https://www.bbc.co.uk/bitesize/guides/zcjjfcw/revision/1 https://www.bbc.co.uk/bitesize/guides/zx98pbk/revision/1 Revision guide: 51-57	**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 Titrations
5	**Retrieval questions from electrolysis** Electrolysis Half equations at the electrodes **(higher only)** Electrolysis of aqueous solutions **(higher only)** Extraction of aluminium	Required practical Specific heat capacity Y band	https://www.bbc.co.uk/bitesize/guides/zcsyw6f/revision/1 Revision guide: 58-59	**Electrolysis** Electrolysis **(including the required practical)** Half equations at the electrodes **(higher only)** Electrolysis of aqueous solutions **(higher only)** Extraction of aluminium
6	**Retrieval Question from energy changes** Exothermic and endothermic reactions energy transfers Bond energies **(higher only)** Reaction profiles Cells & batteries Fuel cells	Required practical Specific heat capacity X band	https://www.bbc.co.uk/bitesize/guides/zwfr2nb/revision/1 https://www.bbc.co.uk/bitesize/guides/z2396yc/revision/1 Revision guide: 61-65	**Energy changes** Exothermic and endothermic reactions **(required practical)** energy transfers from reactions Bond energies **(higher only)** Reaction profiles Cells & batteries Fuel cells

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	Key areas of focus in **lessons.**	Key areas of focus in **Academic Enrichment.**	Key areas of focus for **homework.**	Key areas of focus for **independent learning.**
1	**Retrieval Questions from energy stores** Changes in energy stores Conservation of energy Energy and work and power Types of energy stores energy and efficiency **(Higher only increasing efficiency)** Conduction and radiation Specific heat capacity	Required practical the light microscope Y Band	https://www.bbc.co.uk/bitesize/guides/z8hsrwx/revision/1 https://www.bbc.co.uk/bitesize/guides/zp8jtv4/revision/1 https://www.bbc.co.uk/bitesize/guides/z2gjtv4/revision/1 Revision guide: 11-17	**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 https://www.bbc.co.uk/bitesize/guides/z8hsrwx/revision/1 https://www.bbc.co.uk/bitesize/guides/zp8jtv4/revision/1 https://www.bbc.co.uk/bitesize/guides/z2gjtv4/revision/1
2	**Retrieval questions from energy resources** Energy demands Energy from wind and water Energy and the environment Energy issues	Required practical the light microscope X band	https://www.bbc.co.uk/bitesize/guides/zchgdxs/revision/1 Revision guide:18-22	**Energy resources** Energy demands Energy from wind and water Energy and the environment Energy issues https://www.bbc.co.uk/bitesize/guides/zchgdxs/revision/1
3	**Retrieval questions from electricity** Current and charge Potential difference and resistance Series and parallel circuits Component characteristics	Required practical Making Salts Y band	https://www.bbc.co.uk/bitesize/guides/zpdtv9q/revision/1 Revision Guide: 24-30	**Electricity** Current and charge Potential difference and resistance (include required practical) Series and parallel circuits Component characteristics (include required practical) https://www.bbc.co.uk/bitesize/guides/zpdtv9q/revision/1

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	Key areas of focus in **lessons.**	Key areas of focus in **Academic Enrichment.**	Key areas of focus for **homework.**	Key areas of focus for **independent learning.**
4	**Retrieval questions from electricity in the home** Alternating current Cables and plugs Electrical power and potential difference Electrical currents and anergy transfer Appliances and efficiency Static electricity	Required practical Making Salts X band	https://www.bbc.co.uk/bitesize/guides/zpdtv9q/revision/1 https://www.bbc.co.uk/bitesize/guides/z9s4qhv/revision/1 Revision guide:31-36	**Electricity in the home** Alternating current Cables and plugs Electrical power and potential difference Electrical currents and anergy transfer Appliances and efficiency Static electricity https://www.bbc.co.uk/bitesize/guides/zpdtv9q/revision/1 https://www.bbc.co.uk/bitesize/guides/z9s4qhv/revision/1
5	**Retrieval questions from particle model of matter** Density States of matter and changes of state Internal energy Specific latent heat Gas pressure and temperature	Required practical Specific heat capacity Y band	https://www.bbc.co.uk/bitesize/guides/zsqngdm/revision/1 https://www.bbc.co.uk/bitesize/guides/zcncjty/revision/1 https://www.bbc.co.uk/bitesize/guides/zqrqh39/revision/1 Revision guide:38-41	**Particle model of matter** Density (include required practical) States of matter and changes of state Internal energy Specific latent heat Gas pressure and temperature https://www.bbc.co.uk/bitesize/guides/zsqngdm/revision/1 https://www.bbc.co.uk/bitesize/guides/zcncjty/revision/1 https://www.bbc.co.uk/bitesize/guides/zqrqh39/revision/1
6	**Retrieval Question from radioactivity** Atoms and radiation The nucleus Types of radiation Half life Hazards & uses of radiation Nuclear fission and fusion	Required practical Specific heat capacity X band	https://www.bbc.co.uk/bitesize/guides/zxkxfcw/revision/1 https://www.bbc.co.uk/bitesize/guides/zpjpb82/revision/1 https://www.bbc.co.uk/bitesize/guides/z3tb8mn/revision/1 https://www.bbc.co.uk/bitesize/guides/z83dxfr/revision/1 https://www.bbc.co.uk/bitesize/guides/zx86y4j/revision/1 Revision Guide:43-49	**Atomic structure (Radioactivity)** Atoms and radiation The nucleus Types of radiation Half life Calculating decline in radioactivity (**higher only)** Hazards & uses of radiation Nuclear fission and fusion https://www.bbc.co.uk/bitesize/guides/zxkxfcw/revision/1 https://www.bbc.co.uk/bitesize/guides/zpjpb82/revision/1 https://www.bbc.co.uk/bitesize/guides/z3tb8mn/revision/1 https://www.bbc.co.uk/bitesize/guides/z83dxfr/revision/1 https://www.bbc.co.uk/bitesize/guides/zx86y4j/revision/1