

Y10 Curriculum map 2019-20 Key topics, concepts and skills

**Please note this is subject to change depending upon the amount of support and consolidation individual classes require and as departments continue to review their curriculum on a regular basis*

	Autumn		Spring		Summer	
	Term 1	Term 2	Term 3	Term 4	Term 5	Term 6
Art	<u>Component 1: Sea life project.</u> Building and expanding on existing skills	Sea life project cont.	Sea life project cont.	Sea life project cont.	<u>Component 1: project 2</u> Architecture Skulls Landscapes	Second project cont.
Biology (single science)	<u>Cell biology</u> Microscopy, cell ultrastructure, prokaryotic cells, mitosis, stem cells, diffusion, osmosis, <u>Organisation</u> Digestion, gas exchange,	Organisation cont. Transport in animals, non-communicable disease, cancer	<u>Infection and response</u> Communicable disease, immunity, vaccination, microbial culture, antibiotics and resistance, painkillers, drug development, MABs (HT only)	<u>Plants</u> Plant transport, photosynthesis, limiting factors, fate of glucose, nitrates and proteins	Plants cont. Plant disease, detection and defence	<u>Response and homeostasis</u> Nerves, brain, body temp, blood glucose and diabetes, kidney, reproductive hormones, contraception, plant hormones.

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	<u>Respiration</u> Cellular, exercise, fermentation					
Biology (combined science)	<u>Cell biology</u> Microscopy, cell ultrastructure, prokaryotic cells, mitosis, stem cells, diffusion, osmosis	<u>Organisation</u> Digestion, gas exchange,	Organisation cont. Transport in animals, non-communicable disease, cancer	<u>Infection and response</u> Communicable disease, immunity, vaccination, microbial culture, antibiotics and resistance, painkillers, drug development	<u>Plants</u> Plant transport, photosynthesis, limiting factors, fate of glucose, nitrates and proteins	<u>Respiration</u> Cellular, exercise, fermentation <u>Response and homeostasis</u> Nerves, blood glucose and diabetes, reproductive hormones, contraception

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Business	<p><u>Enterprise and Entrepreneurship</u></p> <p>Aims and objectives, where business ideas come from, risks and rewards, entrepreneurial characteristics, business purpose, added value</p> <p><u>Spotting a business opportunity</u></p> <p>Customer needs, market research, market segmentation, the competitive business environment</p>	Spotting a business opportunity cont.	<p><u>Putting a business idea into practice</u></p> <p>Business finance including, profit, revenue, cash flow forecasts, breakeven analysis, sources of finance for small businesses</p>	<p><u>Making the business effective</u></p> <p>Business ownership, business location, marketing mix, business plan</p>	<p><u>Understanding external influences of a business</u></p> <p>Business stakeholders, technology and business, legislation, unemployment, changing levels of consumer income, inflation, changes in interest rates, government taxation, changes in exchange rates.</p>	<p><u>Growing the business</u></p> <p>Ethics, the environment and business, globalisation and international trade, changing aims and objectives, mergers and takeovers, public limited company, sources of business finance.</p>
Chemistry (single science)	<p><u>Revision of Atomic structure and Periodic Table (Yr9)</u></p> <p><u>Structure, bonding and properties</u></p> <p>-Ionic bonding and properties</p>	Structure, bonding and properties cont.	<p><u>Chemical change</u></p> <p>-Metals with acid/water/oxygen -Reactivity series -Displacement -Reduction -Making soluble salts</p>	<p>Chemical change cont.</p> <p><u>Energy</u></p> <p>-Exo and endothermic reactions -Combustion and calorimetry</p>	<p>Energy cont.</p> <p>Prepare for end of Year 10 exams</p> <p><u>Quantitative chemistry</u></p> <p>-Equations and conservation of mass</p>	Quantitative chemistry cont.

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	<ul style="list-style-type: none"> -Covalent bonding and simple molecular properties -Metallic bonding and properties -Alloys -Carbon allotropes -Polymers -Nanoparticles -States of matter <p><i>All topics have the key skill areas embedded within them: knowledge gain, maths, apparatus and technique, and working scientifically.</i></p>		<ul style="list-style-type: none"> -Crystallisation -Metal carbonates with acid -pH scale -Titration technique -Strong and weak acids -Electrolysis of melts and solutions 	<ul style="list-style-type: none"> -Energy profile diagrams -Bond energy -Cells and batteries -Fuel cells 	<ul style="list-style-type: none"> -Relative mass -Moles -Reacting masses -Limiting reagents -Concentration -Solution calculations -Atom economy -Percentage yield -Gas volumes -Uncertainty 	
Chemistry (combined science)	<p><u>Structure, bonding and properties</u></p> <ul style="list-style-type: none"> -Ionic bonding and properties -Covalent bonding and simple molecular properties -Metallic bonding and properties 	Structure, bonding and properties cont.	<p><u>Chemical change</u></p> <ul style="list-style-type: none"> -Metals with acid/water/oxygen -Reactivity series -Displacement -Reduction -Making soluble salts 	<p>Chemical change cont.</p> <p><u>Energy</u></p> <ul style="list-style-type: none"> -Exo and endothermic reactions -Combustion and calorimetry 	<p>Energy cont.</p> <p>Prepare for end of Year 10 exams</p> <p><u>Quantitative chemistry</u></p> <ul style="list-style-type: none"> -Equations and conservation of mass 	<p>Quantitative chemistry cont.</p> <p><u>Rates of reaction</u></p> <ul style="list-style-type: none"> -Collision theory -Surface area -Concentration -Temperature -Catalysts

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	<ul style="list-style-type: none"> -Alloys -Carbon allotropes -Polymers -States of matter <p><i>All topics have the key skill areas embedded within them: knowledge gain, maths, apparatus and technique, and working scientifically.</i></p>		<ul style="list-style-type: none"> -Crystallisation -Metal carbonates with acid -pH scale -Electrolysis of melts and solutions 	<ul style="list-style-type: none"> -Energy profile diagrams 	<ul style="list-style-type: none"> -Relative mass -Concentration -Atom economy -Percentage yield -Uncertainty 	<ul style="list-style-type: none"> -Reversible reactions -Equilibria
Computer Science	<p><u>Data Representation</u></p> <p>Embedding content from KS3:</p> <ul style="list-style-type: none"> Binary Hexadecimal Logic Binary Addition ASCII <p>Units</p> <ul style="list-style-type: none"> Unicode Images Sound Compression 	<p><u>Algorithms</u></p> <p>Embedding content from KS3:</p> <ul style="list-style-type: none"> Flowcharts Program flow: Sequence Selection Iteration <p><u>Programming</u></p> <ul style="list-style-type: none"> Data Types Operators Constants Variables Strings 	<p>Programming cont.</p> <ul style="list-style-type: none"> Subroutines Design Testing: Robust Programming Testing Trace Tables Time Efficiency <p>Algorithms - Search & Sort</p>	<p>The Project – An exam board set assignment</p> <p>Students design, code and test a solution to a problem.</p>		

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		Boolean Operators Random Numbers Arrays Records				
Creative iMedia (vocational)	<u>Fundamentals of website design and creation</u>	Fundamentals of website design and creation cont.	Fundamentals of Website design and creation cont.	<u>Fundamentals of digital graphic design and creation</u>	Fundamentals of digital graphic design and creation cont.	Fundamentals of digital graphic design and creation cont.
Design Technology: practical (3 lessons per fortnight)	Knot: accuracy	Passive Amplifier: design movements	Metal: trowel	Stool		Non exam assessment
Design Technology: theory (2 lessons per fortnight)	Introduction to materials and properties: Timber Metal Polymers Smart and Modern Paper/Boards Textiles		<u>Tools, equip and processes</u> <u>New and emerging technologies</u>	<u>Energy and mechanisms</u> <u>Electronics</u>	<u>CAD/CAM</u> <u>Production aids</u> <u>Accuracy</u>	<u>The work of others</u> Designers and companies <u>Social, moral and environmental issues</u>
English	Language	<u>WJEC Eduqas: Component 1</u> Reading response to unseen C20th fiction and creative writing (narrative)			<u>Spoken English presentation</u>	
	Literature	<u>AQA Paper 2: Animal Farm</u>	<u>AQA Paper 2: Conflict poetry one lesson weekly</u>	<u>AQA Paper 1: Macbeth</u>	AQA Paper 1: Macbeth cont.	<u>Revision: Animal Farm</u> <u>Revision: Animal Farm</u>

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Events Operations (vocational)	<u>Unit 2 Portfolio unit</u>	<u>Understand how event teams operate</u>	<u>Unit 1 examined unit</u>	<u>Know how events comply with regulatory requirements</u>	<u>Revision and exam in May</u>	<u>Unit 3 Planning an event</u>
	<p>Understand the role of customer service in event operations - linked to the Christmas Fair: Describe principles of customer service Explain how events meet customer needs Analyse factors affecting customer service provided at events Communicate with customers Two hours of controlled assessment</p>	<p>Describe roles of individuals in different types of teams Explain the benefits of teamwork Explain how the principles of team working are applied in event operations Contribute to team performance Be able to review event success.</p> <p style="text-align: center;"><u>Evaluation</u></p> <p>Evaluate own performance evaluate performance of others Evaluate event success 6 hours of controlled possibly going into the first two weeks of the spring term</p>	<p>Understand the structure of the events industry Different types of teams How organisations are involved in teams Why organisations work together when organising events</p> <p style="text-align: center;"><u>Understand the principles of event planning</u></p> <p>Activities involved Factors to consider Event risks Contingency plans</p> <p style="text-align: center;"><u>Understand factors that affect the success of events</u></p> <p>Meeting customer requirements</p>	<p>Regulatory requirements Permissions required Insurance requirements</p> <p style="text-align: center;"><u>Process event operations</u></p> <p>Administration Recommend venues Calculate payments</p>	<p>Organise and run a stall on sports day. To include the relevant market research, analysis and feedback required to help plan an event on a much larger scale next term.</p>	

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			Analysing factors that affect events Minimising risks			
French	<u>The world around me</u> Recap KS3 vocab Past tense with different auxiliaries	<u>My family and me</u> Recap KS3 vocab Reflexive verbs	<u>My studies</u> Conditionals	<u>The world of work</u>	<u>Technology</u>	<u>Work and work experience</u>
Games	Students choose an activity a list of options. Likely options include: <ul style="list-style-type: none"> ● Netball ● Football ● Rugby ● Hockey ● Badminton/Table Tennis ● Handball ● Basketball ● RTB – benchball, volleyball, dodgeball. 	Students choose a fitness activity from the following list: <ul style="list-style-type: none"> ● HIIT/Circuits ● Pilates/Core Conditioning ● Outdoor Boot camp ● Running ● Rowing 	Students choose an activity a list of options. Likely options include: <ul style="list-style-type: none"> ● Netball ● Football ● Rugby ● Hockey ● Badminton/ Table Tennis ● Handball ● Basketball ● RTB – benchball, volleyball, dodgeball. 	Students choose an activity from the following list: <ul style="list-style-type: none"> ● Tennis ● Rounders/Softball ● Athletics ● Cricket 		
Geography	<u>Landscape</u> Geology Coasts	<u>River landscapes</u>	<u>Climate</u>	<u>Ecosystems</u>	<u>Global development</u>	<u>Fieldwork on rivers and coasts</u>

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German	<u>Self and Relationships</u> Family/friends/clothes	<u>Entertainment & Leisure</u> Free time activities(different tenses) <u>Technology & social media</u> Mobile phones/living without technology/what you use tech for (diff tenses)	<u>Local areas of Interest</u> What there is for young people in your area/opinions of area/improving your town/dream town <u>Transport</u> How you get to school (diff tenses)/advantages and disadvantages of transport methods	<u>School Life</u> Describe school/improving school/school rules/what you do at break/lunch etc (diff tenses)	<u>Food & drink</u> What you like and dislike eating and drinking/what you ate and drank yesterday/what you will eat tomorrow/German food	<u>Health & fitness</u> Healthy living/what you should do/last week etc <u>Jobs etc</u>
History	<u>Conflict & Tension 1919-39</u> -Treaty of Versailles -League of Nations -causes of the Second World War		<u>USA 1919-75</u> -Introduction to USA -US Economy in the 1920s -Life for US people -Persecution & intolerance	<u>USA 1919-75</u> -Wall Street Crash -The New Deal	<u>USA 1919-75</u> -Post war affluence - McCarthyism -Civil Rights - female equality	<u>Health & People c. 1000 – present</u> -What was medieval medicine like? -Renaissance medicine: the beginnings of change

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Maths	<ul style="list-style-type: none"> • Fractions, decimals & percentages. • Formulae & functions. • Working in 2D. • Probability. • Measures & accuracy. 		<ul style="list-style-type: none"> • Equations & inequalities • Circles & constructions. • Ratio & percentages. 		<ul style="list-style-type: none"> • Factors, powers & roots. • Graph work. • Working in 3D. 	
Music	<p><u>Exam preparation</u></p> <p>Conventions of Pop: . 50s & 60s Rock n' Roll . Rock Anthems . Ballads . Current Pop</p> <p>Language for learning Dynamics, Articulation Harmony 1</p> <p><u>Performance</u> Solo Performance</p> <p><u>Composition</u> 12 Bar Blues Composition - chords, inversions, walking bass, Blues scale, structure</p>		<p><u>Film Music</u></p> <p>Music for screen Music for games Language for learning Harmony 2, large structures, compositional devices, melody, pitch, Technology, Voices, ensembles, timbre and tonality</p> <p>Rhythms of the World Indian Classical, Bhangra, Samba, African Drumming</p> <p><u>Performance</u> Ensemble Performance Working towards performance for year 10 exam</p> <p><u>Composition</u> Film Compositions - developing ideas Free Composition or Theme and Variations</p>		<p><u>Rhythms of the World</u> Greek, Israeli, Palestinian Music Calypso Language for learning Instruments, Rhythm, Tempo, Texture</p> <p><u>Performance</u> Work on Solo Performance</p> <p><u>Composition 1</u></p>	
PE	<p><u>The Body Systems</u></p> <ul style="list-style-type: none"> • Skeletal • Muscular 	<p><u>The Body Systems:</u></p> <ul style="list-style-type: none"> • Cardiovascular • Respiratory 	<p><u>Training:</u></p> <ul style="list-style-type: none"> • Component s of fitness 	<p>Training cont.</p> <p><u>Preventing Injury</u></p>	<p><u>AEP Coursework</u></p> <p>Practical activities vary depending on</p>	<p>AEP Coursework cont.</p>

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	<p><u>Movement Analysis</u></p> <ul style="list-style-type: none"> ● Planes of Movement ● Axes of Rotation ● Levers <p>Practical activities vary depending on the needs of the students.</p>	<p><u>Effects of exercise on the body:</u></p> <ul style="list-style-type: none"> ● Short term ● Long term <p>Practical activities vary depending on the needs of the students</p>	<ul style="list-style-type: none"> ● Fitness Testing ● Methods of training ● Principles of Training ● The Exercise Session <p>Practical activities vary depending on the needs of the students</p>	<ul style="list-style-type: none"> ● Minimising risk ● Identifying hazards ● Risk Assessment <p>Practical activities vary depending on the needs of the students</p>	<p>the needs of the students</p>	<p><u>Engagement Patterns</u></p> <ul style="list-style-type: none"> ● Current trends in UK Sport ● Factors affecting participation ● Strategies to improve participation <p>Practical activities vary depending on the needs of the students</p>
<p>Performing Arts (vocational)</p>	<p><u>Introductory skills sessions and workshops</u></p> <p><u>Build and develop theatre knowledge as Unit 3 (exam) prep.</u></p>	<p><u>Begin Unit 2 scripted performances</u></p> <p><u>Unit 2 performances and log book submission</u></p> <p><u>Continue Unit 3 revision and test</u></p>	<p><u>Begin Unit 1 – presentation and portfolio.</u></p> <p><u>Unit 3 revision and mock exam</u></p>	<p><u>Unit 1 presentation and logbooks.</u></p> <p><u>Continue Unit 3 prep.</u></p>	<p><u>Unit 2 rehearsals and logbooks.</u></p> <p><u>Unit 3 mock paper</u></p>	<p><u>Unit 2 performances and logbooks</u></p> <p><u>Organise iperform festival as Unit 3 experience.</u></p>

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Personal Development (topics taught on a carousel rotation)	<p>The following topics are covered in Year 10:</p> <p>Radicalisation and extremism Honor-based violence. Female genital mutilation. Mental health awareness Sex and relationships education (including family, LGBTQ and consent) Drugs and risk-taking behaviours Study skills Online safety Careers: CVs and the local labour market, employability skills, interviews, application forms, making telephone calls, the role of social media.</p>					
Physics (Combined Science)	<u>AQA Particles</u> Particle Models Density Internal Energy Specific Heat Yr 10 Setting Test Latent Heat Combining Specific and Latent Heat	Particles Cont. Brownian Motion Boyle's Law Gas Pressure <u>AQA Energy</u> Types of Energy Kinetic GPE GPE to Ek Work Done Power	Energy Cont. Specific Heat Conduction Insulation Payback Efficiency Bouncing Balls Fuels Renewables	Energy Cont. Non Renewable <u>AQA Electricity</u> Circuit Symbols Current in Parallel What is Current Voltage	Electricity Cont. Resistance Electricity Cont. Ohmic Resistor Series/Parallel	Electricity Cont. Filament Lamps Diode Thermistor LDR LED Diode AC/DC Elec Energy National Grid Electrostatics Elec Fields
Physics (Separate Science)	<u>AQA Particles</u> Particle Models Density Internal Energy Specific Heat	Particles Cont. Brownian Motion Boyle's Law Gas Pressure	Energy Cont. Bouncing Balls Fuels Renewables Non Renewable	Electricity Cont. Ohmic Resistor Series/Parallel Filament Lamps Diode	Electricity Cont. National Grid Electrostatics Elec Fields	Forces Cont. Resolving Work Done Hooke's Law Energy in Springs

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	Yr 10 Setting Test Latent Heat Combining Specific and Latent Heat	<u>AQA Energy</u> Types of Energy Kinetic GPE GPE to Ek Work Done Power Specific Heat Conduction Insulation Payback Efficiency	<u>AQA Electricity</u> Circuit Symbols Current in Parallel What is Current Voltage	Thermistor LDR LED Diode AC/DC Elec Energy	<u>AQA Forces</u> Scalars/Vectors Weight Resultants	Moments Balanced Mom Fluid Pressure Atmospheric Pres Speed / Velocity Distance / Time
Religion, Philosophy & Ethics	<u>Theme B -Religion and Life</u> Sanctity of life Abortion Euthanasia Hospices Life after death Creation and Science The Environment	<u>Studies in Religion - Christian Beliefs</u> God The Trinity Incarnation Beliefs about Jesus' crucifixion, resurrection, ascension Atonement The means of salvation including grace, works and faith Judgement	Studies in Religion - Christian Beliefs cont. Causes of crime Aims of punishment Community Service Prison Corporal Punishment Capital Punishment Forgiveness and reconciliation	Theme E Religion, Crime and Punishment cont.	<u>Studies in Religion - Christian practices</u> Worship Prayer Holy Communion Baptism Pilgrimage Festivals -Easter and Christmas	<u>Theme D War and Peace</u> Pacifism Causes of War Holy War Just War Theory Terrorism and Protest Weapons of Mass Destruction Religious Responses to victims of war